Foreword

The Global economic landscape is still recovering from the prolonged crisis which has significantly affected consumer’s buying power, hit commodity prices, as well as hampered growth in general. However, in the midst of the crisis, research has shown that family business remains a strong and resilient force which helps propel the economy. A Harvard Business Review article argued that Family Businesses tend to be more frugal and enter the recessionary period with leaner cost structures.

According to McKinsey, in emerging economies, Family Business account for approximately 60 percent of the private-sector companies with revenues of $1 billion or more, compared to less than one-third of the companies in the S&P 500. However, the upward trend for family businesses as a significant part of their national economies in emerging markets remain strong and will represent nearly 40 percent of the world’s largest companies in 2025, up from 15 percent in 2010, which shows the growing importance of understanding Family Business and its sustainability in the long run in the midst of the current global scenario.

In this regard, the International Conference on Family Business and Entrepreneurship (ICFBE) 2019 is specifically established to be a leading international conference is championed by President University, a world-class higher education institution in Indonesia which was established to become a reputable research and development center in the region and to set a new benchmark in Indonesian higher education. This conference aims to gather researchers and practitioners to critically share and discuss the latest empirical, conceptual, as well as theoretical findings and trends in the field of Family Business, Entrepreneurship, Strategic Management, among others.

Unlisted but related sub-topics are also acceptable, provided they fit in one of the main topic areas as follow:

1. Sustainability of Family Business
2. Succession Planning and Family Conflicts
3. Professionalization and Family Culture
4. Entrepreneurship
5. Strategic Management

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Editors
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Business Succession is Crucial but not easy: Study of Large Family Businesses in Indonesia

Hadi Cahyadi NG
University of Tarumanagara, Indonesia

Abstract

There’s only limited research on inter generation large family businesses in Indonesia; which in other parts of this journal will be referred to as family business, large family business, family-owned business, family firm, or family corporation; even though family businesses play an important role in Indonesia economy. In a family business, especially a large one, succession is arguably the most important obstacle for inter-generation longevity of the business. Based on global statistics, less than 12% of family businesses survive to the third generation. Therefore, it is interesting to study large family businesses in Indonesia on how they manage and grow the business, and prepare the succession plan to preserve the business to the next generations. The study reveals the challenges and the solution taken, criterion and attributes of the successor, and time span to groom the successor. In general, most of founders believe that succession is crucial but not easy, so that a good preparation as generally known as a succession plan is required. This research has major implications for business founders and successors to understand the challenges and opportunities in the succession process.

Keywords: family business, large family business, family-owned business, family corporation, business founder, business succession Indonesia

1. INTRODUCTION

Right from the very beginning, the founders of family businesses expect to inherit their businesses to their next generations, either driven by entrepreneurial or merely survival instinct. The typical pattern of a family business is once the company is getting bigger, the first generation owner/founder generally envisions or dreams that the children will run the business together and continue the business accordingly. However, in reality, all family businesses; small, medium, or large in sizes; have something in common and the number one topic is always a business succession. Therefore, at any place around the world, especially in Asia, the founder who expects the legacy to continue is facing difficulty in doing so.

Many family business researchers agree that the succession issue is the most important issue that is faced by most family (Handler 1994). The traditional adage says: the first generation creates the wealth; the second maintains it and the third waste it. A noteworthy
number of studies on family businesses have focused on intergenerational succession (Bigliardi and Dormio, 2009).

In 2010, Businessweek said that less than half (40 percent) of family businesses survive to the second generation, 13 percent continue to the third generation, while only a shocking 3 percent survive to the fourth generation and beyond. Whatever the odds are, the facts are somehow worrisome.

Further, family business researches have emphasized the complexity of succession e.g., emotional issues, gender issues, complex ties among family members, family conflicts and rivalries, incumbent and successor attributes to be considered, difficulties in selecting successors, incumbent resistance to step aside, and other related issues.

Because of the high chance of failure during succession, the importance of planning has become a key issue in the family business literature (Motwani et al., 2006; Tatoglu et al., 2008). In addition, there is a related strand of literature which focuses on the actual succession process or implementation of the succession plan (Sharma et al., 2001). An underlying assumption in this line of literature is that succession planning is crucial to the success and continuity of a family business (Lee et al., 2003; Miller et al., 2003).

This research addresses the concern on how the founders of successful large family businesses perceive intergeneration succession that consist of the planning, the criteria of a successor, the risk mitigation, and the time span of preparation. This research is also in line with Benavides-Velasco et al., (2011) who mentioned the need of deeper research on dimensions of succession plan, such as the criteria for selecting the successor. The research also tries to fulfill the suggestion of Brockhaus (2004) to call more international research.

2. LITERATURE REVIEW

The Role of Family Businesses

The family business is an emerging and immature research field (Benavides-Velasco et al. 2013, Xi et al. 2015). During the last decade, it has expanded rapidly (Evert et al. 2016; Sharma et al. 2012; Nordqvist et al. 2013; Xi et al. 2015, Anglin et al., 2017; Basco, 2017; Carney et al., 2015).

The Rothschilds, for instance, is an examples of remarkable ascents of family businesses. They are not only amassed the greatest concentration of private wealth the Western world has ever seen, but also they are credited with changing the fate of history by financing monarchs and kings—one of their most famous bets being the support for Wellington’s armies, which ultimately led to the defeat of Napoleon at Waterloo. At the height of their power, a French journalist reportedly said in 1841: “There is but one power in Europe, and that is Rothschild” (Ferguson, 1998).

This is the fact that globally, family firms are the most common, diffused, and widely studied ownership structure, since they contribute significantly not only to business and society as an essential business organization (De Massis et al. 2015) but also to organizational research as an empirical and theoretical research topic (Botero et al. 2015; De Massis et al. 2015; Carney et al. 2015).

Moreover, recent business press report (The Economist 2015) indicates that more than 90% of the world’s businesses are family managed or controlled, with varied influences across many different countries (e.g., Klein 2000; Anderson and Reeb 2003a; Morck and Yeung 2004; Villalonga and Amit 2006; Astrachan and Shanker 2003).

For example, family businesses make up more than 80% of private-sector firms in the USA, employing 57% of the US workforce and contributing 63% of its gross domestic product (GDP) (McKinsey & Co. 2014; De Massis et al. 2015). Of the 500 largest family
firms, 23.4% are in North America and account for 11.4% of North America’s GDP; 46.4% are in Europe, accounting for 14.8% of the continent’s GDP; and the rest are distributed across the Asia-Pacific and Latin America (Global Family Business Index - University of St. Gallen Center for Family Business, EY Family Business Yearbook 2016).

About 60% of emerging markets private-sector corporations with revenues of US$1 billion or more were owned by founders or families in 2010. It is reasonable to expect that these corporations will remain, or even play more significant role in their national economies than their counterparts in the West did about a century ago. As brisk growth drives emerging regions and their family-owned businesses forward, the analysis suggests that an additional 4,000 of them could hit revenue of US$1 billion from 2010 to 2025, as stated below (McKinsey &Co 2014):

![Figure 1. Growth of Family Businesses in Emerging Markets that Hit US$1 Billion in Sales](image)

Forbes in 2015, reported that Leading companies in East Asia, including Korea, Japan, Taiwan, China, Indonesia, and Thailand, are family businesses that play a critical role in the rapid development of these economies. Samsung, like many other leading companies counterpart in Korea, is a family-controlled conglomerate. It contributes to over 20 percent of the country’s GDP – that almost equals total government spending. McKinsey provides a bold projection that by 2025, an impressive 40% of the emerging markets’ largest enterprises (Revenue > US$1 bio) will be family or founder-controlled businesses.

In Indonesia, family businesses also play an important role as their counterparts in other part of the world. In the period of 2013-2017, total revenue of listed family business companies dominated the Indonesian Stock Exchange, which on average contributes 56.8% of the listed companies’ revenues in Indonesia. In the period, average revenue of family
businesses (FAM), state-owned-enterprise (SOE) and multi-national company (MNC) are IDR1,651,504,607 mio; IDR656,792,154 mio; and IDR598,042,507 mio, respectively.

Figure 2. Revenue of Listed Companies on Indonesian Stock Exchange by Category

Refer to to GDP contribution, in the period of 2013-2017, listed companies in Indonesia contribute at an average of 25.55% to Indonesia GDP. The biggest contributors are family business (FAM) with 14.55%, followed by state-owned-enterprise (SOE) and multi-national company (MNC) with 5.72% and 5.25%, respectively.

Figure 3. Contribution of Listed Companies' Revenue to GDP

In line with the above data, leading companies in South East Asia and East Asia, including Indonesia, are family businesses. They play a critical role in the rapid development of the economies. Indeed, family-owned businesses are a large and growing force, and are deserved to be devoted as research topics.
Succession Is Hot Topic in Family Business

Smooth succession process is common problem faced by family business. The ability of prior generation to ensure competent family leadership across the generation will determine a successful succession. It is said that family business as a business will be passed from one generation to another (Ward 1987). Hence, the literature of family business has focused a great deal of attention on this unique challenge.

In addition to report of Businessweek in 2010 that 40 percent of family businesses survive to the second generation, 13 percent continue to the third generation, and only 3 percent survive to the fourth generation and beyond, Beckard & Dyer, 1983a, 1983b, found that in the United States, only 30% of family firms survive to the second generation (Dascher and Jens, 1999; Henning, 2004; Le Breton-Miller, 2004; Royer et al., 2008; van der Merwe, 2009; Janjuha-Jivraj and Spence, 2009), and 10% to the third generation. Thus, succession is a real problem for most family corporations (Handler, 1994).

As proven by its history, the Chinese has its very own saying to express the phenomena: “fu bu guo san dai”, literally: wealth does not pass three generations since many cases show that It’s rare the wealth of a family can last for three generations (the 2nd may see the value of hard work, the 3rd forget it). Hence, most of family business researchers assent that the succession issue is the most important issue that most family face.

Indeed, family business research is emerging and agreeable among scholars regarding the importance of family business succession as a research topic (Casillas and Acedo 2007; Sharma 2004; Nordqvist et al. 2013; Long and Chrisman 2014; Cisneros et al. 2018; Howorth et al., 2010; Mitchell et al., 2009; Royer et al., 2008; Sharma et al., 2003; Wang et al., 2004).

As early as 1871, Fréde’ric Le Play (1871), in his book L’Organisation de la famille, raised the question of whether firms should be transferred to all the founder’s children or just to the first-born son. Today, almost every congress and seminar on family business management has a track focused on succession issues. According to several authors (Sharma et al. 1997; Casillas and Acedo 2007; Alouche et al. 2008; Benavides-Velasco et al. 2013; Nordqvist et al. 2013; Xi et al. 2015), succession is one of the most-studied topics in the family business field. For instance, in a bibliometric study using co-citation analysis, Xi et al. (2015) analysed and identified succession as one of the five most important topic clusters in family business research.

Since a family business presents three overlapping systems (family, business, and ownership) (Tagiuri and Davis 1992; Gersick et al. 1997), those systems need to be taken into account to understand succession, as well as the perspectives of different stakeholders (Brockhaus 2004). In the same way, succession affects individuals, families, employees, shareholders, and other stakeholders (Brockhaus 2004; Nordqvist et al. 2013).

Therefore, transferring leadership and company control to the next generation is a complex phenomenon and hurdle to inter-generational longevity for family business (Handler 1994; Le Breton-Miller et al. 2004; Nordqvist et al. 2013). Family business literature has underlined the complexity of succession (e.g., emotional issues: Kets de Vries 1993; Gersick et al. 1997), complexities among family members (Lansberg 1999; Gomez-Mejia et al. 2001; Miller et al. 2003), family conflicts and rivalries (Stern 1986; Drozdow 1986; Lansberg 1988; Swagger 1991), incumbent and successor attributes to be considered (Le Breton-Miller et al. 2004), difficulties selecting successors (Swagger 1991), incumbent resistance to stepping aside (Handler and Kram 1988; Sonnenfeld and Spence 1989), and multiple influences, such as owners’ goals, successors’ ambitions, family structure, and legal and financial issues (Brockhaus 2004; Nordqvist et al. 2013).

In line with the complexity and cruciality of business succession, the purpose of this study will attempt to understand the succession planning in large family business in
Indonesia, but more specifically on the following issues: Intergeneration Management and Succession Preparation, Criteria of the Successor, the Perceived Hurdles and Challenge on Succession Plan.

3. RESULT AND DISCUSSION

This research is conducted by sending questionnaires via email, which is closed-ended questions with multiple choice answer options, sent to 198 respondents. The questionnaires consist of 30 general questions and were designed to capture the dynamics of family business and its attitude toward intergeneration issues. The respondents are selected based on the convenience sampling, which comprise 198 clients of 5 major accounting firms that is qualified as family business, has multiple sister firms and subsidiaries, and the revenue is substantial. All respondents who took part in the survey are responsible for businesses of significant size, mostly employing more than hundreds of people and mostly are also listed companies.

Separation of Ownership and Management

The literatures on family business are wide-ranging and multi-dimensional so that it is difficult to find consensus on the exact definition of a family business. However, it is broadly understood that family business is known as entities that are owned, controlled and operated by different members of a family. Chua et. al (1999) summarized 7 types of family owners: (1) an individual; (2) two persons, with unrelated by blood or marriage; (3) two persons, related by blood or marriage; (4) a small family (e.g. nuclear family); (5) a nuclear family with several closed but unrelated blood or marriage people; (6) an nuclear family and their relatives; (7) more than one big family.

The Family business is generally formed in three kinds of combinations of business ownership and governance, namely: (i) the family owned and also the family managed; (ii) the family owned but not the family managed; (iii) family managed but not family owned. The third situation generally exists in western family businesses which have already listed in the stock exchange.

Majority of our respondents are those who are working in family business enterprises which fall under family owned and family managed category. The rest, around 20% of the sample is family owned business, which is owned by family but not family managed.

Intergeneration Management and Succession Preparation

Amidst hurdle in the process of intergeneration transfer of business, which shows strong evidence that the majority of family businesses fail to make it to the second generation, and only 10% make it to the third generation (Beckhard and Dyer, 1983a and 1983b), our survey found that currently more than 42% of the family businesses in Indonesia are managed by second generation and 18% involvement of the third generation. This finding shows a limelight signal that the third generation will take up more significant role in managing their family businesses.

Interestingly, the survey revealed that most business owners preferred their successors to pursue their career outside the family-owned companies as professional upon completion of their education. Around half of the business owners in Indonesia wanted their family members to have adequate knowledge and experience outside, prior to holding key position and assuming greater responsibility in the family business. This process is meant to be a real training ground to the family members to learn overall aspects of a business and equip them with the appropriate skills to enhance their competency to lead the family business eventually. Gaining skill and experience outside the family-owned business has been
recommended by Nelton (1986) and L. Danco (1982). Many consultants have also recommended to work outside for at least 3 to 5 years. Others suggest that at least one promotion should occur, thereby demonstrating the individual’s ability (Brockhaus 2004). Experience in outside company helps the successor to develop their skills so that they will be ready facing a wide range of problems that may confront the family organization (Barnes, 1988; Correll, 1989).

Figure 4 shows that most of the business owners also preference toward the family members, as potential successors, to work for larger enterprises that operated in the same industry. The expected working period is 2 to 5 years as grooming time, prior to joining the family business.

Alternatively, should the successors would like to join the family business right after completion of their education, they have an option to start working modestly as a staff to enable them to learn the business from the bottom, outside the management hierarchy. This option is intentionally provided to expose them on operational aspects and procedures of the companies. This might involve multiple functions in different divisions such as finance & accounting, HRD, purchasing, legal, and others. Experience outside the family business will enable the successors to develop their skill to build relationships and understand the culture and intricacies of a business (L. Danco, 1982; Lansberg & Astrachan, 1994). The business owners also expect that throughout several years of working experience, started as a junior staff, the successor will get valuable experiences and knowledge about company such as operation, organization hierarchy, and.

Last but not least, to equip the successors with appropriate skill sets in order to obtain smooth transition, business owners have to communicate the succession intentions and estate plan so that the successors will be ready to take control the family businesses and even bring it to the next level.

Professionalism Is the Key

The business owners, who are also the founders, realize that professionalism is one of the biggest challenges in family businesses among other things such as succession,
communication, vision alignment, legacy maintenance, and emotional attachment. They understand that managing the business professionally is much more challenging than the business succession itself. The business owners believe that lack of professionalism may ruin the family-owned business in the long run.

Family firms that are typically value driven and led by visionary entrepreneurs face specific challenges as they attempt to professionalize (Benavides-Velasco 2011). Professionalism has become a major concern to business owners as it might impact adversely to the succession process. There are several options that can be taken by business owners to mitigate the problem arising from lack of professionalism in the companies which include among others inviting strategic or financial investors to becoming part of the shareholders. The business owners perceive that having additional shareholders who will be involved in management might help the company to fill in the gap/lack of professionalism.

In addition to inviting the strategic and financial investors, while preparing for the transition process of business succession, the business owners have several options such listing the company or simply go straight to the succession. However, among the options, the research shows that most of business owners in Indonesia prefer to inherit the business directly rather than releasing their shareholdings to strategic/financial investors or listing the companies in the stock exchange.

There is an interesting finding regarding the road they might choose as part of the succession plan. Surprisingly, the family-owned businesses that are managed by the first generation tend to choose IPO (58%) compared to the companies that are managed by the second and the third generation (46%). The fact is different with what we have understood so far on which the family owned businesses that are managed by the first generation are perceived to keep the companies closely for the family, but the reality is different.

Moreover, in contrary with the intention of pursuing professionalism, the study found that business owners have bigger trust in their family members than professionals. In the absence of the competent children, the business owners may opt to pick sibling, cousin or nephew/niece as the successors. The tendency is proven based on the following interrogative question: Business first or family first? It is usually answered that the business’s strategic needs should take precedence over benefits to individual family members (Brockhaus 2004).

The Perceived Hurdles on Succession Plan

Succession is a process that requires intense business owners’ involvement and strong determination. The common fear in the succession process is jealousy from other family members who are not selected as the successors (Grote 2003). Other than that, as family-owned businesses put more trust on family members, the non-family management team have much smaller opportunity obtain the top position, especially in strategic position such as Finance and Operation. Such situation might demotivate the non-family professionals and up to certain degree will affect the companies’ performance.

Over time, business owners are becoming more aware on the above issues. They learned from their peers and other corporations that to cope with this problem, they need to prepare succession plan early and to allow an adequate socialization in order to ensure the smooth succession process and to maintain the sustainably of the businesses.

4. CONCLUSION

Most of the owners of large family business in Indonesia believe that succession is the utmost importance in their corporates’ business cycle. If they take the wrong action, the whole corporation that has been built by sweat and tears, for tens of years, might be vanished in the hand of second generation. Therefore, business owners have been preparing their
successors by sending them to the best universities to get the best formal education, to work in large and reputable companies to gain experience, and even to let them start working work as a staff to gain understanding the business. At the end of the day, character of the successor is assumed the utmost important trait and genuine interest of the successor the second criteria to choose the successors. The business owners also found out that when it comes to choose the corporate leader, the choice between family members or professional is another big challenge. The choice made will always bear unpredictable consequences. Therefore, business owners/founders of large-family businesses believe the necessity and importance of well-prepared business succession.

Even though the methodology still needs improvement and larger respondents is required, however this research may fulfill the suggestion of Benavides-Velasco et al., (2011) and Brockhaus (2004) to call more international research, in this case, the Indonesia’s large family business succession related topics. Further research is needed to get a better and more comprehensive understanding of selection criteria of successor; either it is character, interest, experience, competency, or gender. It is also noteworthy to get a better understanding on relationship issues between the successor and the incumbent, or between the successor and the non-family professional. Nonetheless, the deeper and wider research design and sophisticated statistical techniques are important to be explored to get a better result.

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Influence of Socialization Tactics towards Employees Commitment through Relational Mechanism in Start-up Companies

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Abstract

It has been argued that socialization tactics would create high commitment, which in turn would enhance productivity and reduce turnover intention. Therefore, organizations of various sizes and types are willing to invest in organizational policies and practices that can encourage the commitment of their members. Start-up companies become the context in this study because they have received considerable attention in recent decade. Moreover, they are considered as a new driving force for economic growth around the world and including developing countries like Indonesia. This study examines influence of socialization tactics on newcomer’s organizational commitment through relational mechanism by examining the support and assistance from organization in the process of adaptation to the new work environment (Perceived Organizational Support/POS). Data were collected from 188 new employees of start-up companies around Jakarta. Consistent with previous studies, socialization tactics influence newcomer’s organizational commitment through POS. The results of this study also support the relationship between socialization tactics and organizational commitment through relational mechanism which is captured by newcomer’s perceived organizational support (POS). Eventually this study concludes that socialization tactics are also important for start-up companies as it affects newcomer’s commitment. This study contributes to the development of start-up companies in Indonesia, particularly in the field of human resource.

*Keywords*: socialization tactics; socialization tactics pos; job embeddedness; commitment; start-up

1. INTRODUCTION

Organization plays an important role in helping newcomers, providing them with effective communication, training, and various social activities to overcome uncertainty, anxiety and reality shock. Socialization or on boarding is considered as a tool used by organization in order to help newcomers. It refers to a process that helps newcomers to learn and acquire knowledge, skills and behaviour needed in new organization, so that they
can assume their role and transform from outsider to insider (Bauer & Erdogan, 2011; Filstad, 2011). Well-managed socialization can produce effective and positive members who will stay in the organization for a longer time. Meanwhile, ineffective socialization will lead to earlier departure of members, or their work will be ineffective. Thus, organization must repeat the cycle of recruitment and selection, which results in the loss of time and resources.

Previous research shows that socialization tactics cannot directly influence outcomes; this relationship is often mediated by newcomer adjustment. Several studies have investigated the influence of newcomer socialization on outcomes such as attitude, behaviour, and withdrawal (Allen & Shanock, 2012; Cohen & Veled-Hecht, 2010). Generally, research on the influence of socialization tactics on outcomes emphasizes the adjustment of newcomers to their new environment and work. Among various studies emphasizing the importance of adjustments, Allen and Shanock (2012) suggested the importance of relationships with newcomers (Allen & Shanock, 2012). Through relational mechanism, this study sees the importance of newcomers’ perception of their relationship with organization, particularly when considering outcomes. Moreover, this research only examines organizational commitment since it is considered as outcome of a stable attitude that describes general affective responses to the organization and closely related to achieving organization's long-term goals.

Socialization tactics do not directly influence organizational commitment yet it can directly influence how newcomers develop their perceived organizational support (POS), which in turn will affect their organizational commitment and the possibility of turnover (Allen & Shanock, 2012). By looking at the relationships between newcomers with organization, Allen and Shanock (2012) developed a relational mechanism that links socialization tactics and favourable outcomes for organization, such as organizational commitment. Based on the theory of relational cohesion, through ongoing exchanges (socialization), individuals will build perceptions of support and a sense of unity with the organization. This relational mechanism will ultimately lead to affective commitment.

Every organization has his or her own tactics for socialization. Based on Jones (1986) there are several types of tactics; content, social and context (Allen & Shanock, 2012). Content tactic concerns about how it provides information regarding the timing and order of its socialization activities to newcomers. Social tactic concerns about how it provides interactions (it can be positive or negative interaction) with others. Context tactic concerns about the nature of socialization activities, it can be in collective or individual setting and formal or informal learning.

POS indicates a social exchange relationship between employee and organization. It refers to employees’ common perception to the extent organization values their contributions and cares about their well-being. Positive treatment from organization, such as support from supervisor or experienced members, is an indication that organization thinks that they are significant (Kurtessis et al., 2017). Eventually, employees will feel obligated to respond POS with more endeavour and commitment. Moreover, previous research shows that HR practices (including socialization) are related to employees’ POS since organization has control over its HR practices. The idea of this research supports previous research showing that the relationship between socialization tactics and outcomes mediated by POS. Based on previous research, socialization tactics are expected to influence affective commitment of start-up employees through POS.

Start-up company becomes the context of this study. Although the term is popular, it is still difficult to find the solid definition of this concept. Based on several definitions from previous research, there is a set of start-up characteristics: very simple or no organizational structure, has ability to grow fast, innovation, young company, and has an open work
environment (Robehmed & Colao., 2013; Saini & Plowman, 2007; Timmons & Spinelli, 2008). Therefore, these characteristics describe the definition of start-up that is relevant in this study.

Start-up has been a popular topic in media for the past decade. Moreover, it is also considered as a new driving force for economic growth around the world including developing countries like Indonesia. In Finland, the impact of start-up companies on the economy is very impressive. In 2013, there were 300 start-up companies established by former Nokia employees (“If in doubt, innovate,” 2013). According to The Economist (March 2014), when there was a start-up boom at the end of 2013, there were nearly 140,000 companies in the world with more than 50% of them outside the United States. This fact gives reasons for the importance of start-up (“The startup explosion,” 2014). In Southeast Asia, Singapore is indeed a major centre of start-up, but other countries are also trying to catch up, including Indonesia (Google & AT Kearney, 2017). The development of start-up companies in Indonesia is also worthy of discussion. Along with technological developments, one type of start-up that is growing rapidly in Indonesia is e-commerce. Some of start-up companies become trends in the past few years are Tokopedia, Lazada, Bukalapak, Blibli, Elevenia, Gojek, Traveloka, and many more.

Even though innovation is a brilliant product of start-up, the process of forming, producing and distributing products and services depends on the effectiveness of the management of work, business and employees. Start-up companies also believe that human resources are important element in the development of the company (“Menyelami pengembangan SDM di Tokopedia,” 2017). Like most companies, they also provide socialization to newcomers. This study suggests that start-up companies can use socialization tactics to bind their employees by emphasizing the relationship with newcomers, whether they feel the support and concern from company.

The purpose of this study is to examine the influence of socialization tactics on employees’ commitment. The literature review shows that the previous research regarding socialization and its outcomes were conducted in large organization around the U.S.A. Thus, this research is conducted in start-up companies around Jakarta, since the companies have received considerable attention in recent decade for their outstanding contribution to world economy. Therefore, this study is aimed at making a significant contribution with regard to the link among stated variables. It is also aimed at providing beneficial suggestions to start-up companies based on its findings. The next section of this paper start with literature review, methodology, results and discussion and conclusion are presented.

Figure 1. Research Model

2. THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

Recent Socialization Tactics Model

Recent socialization model illustrates several mechanisms that link socialization and outcomes such as attitudes, behaviour, and withdrawals (Allen & Shanock, 2012; Bauer & Erdogan, 2011; Bauer, Erdogan, Bodner, Truxillo, & Tucker, 2007; Kammeyer-Mueller & Wanberg, 2003; Saks, Uggerslev, & Fassina, 2007). The most common topic regarding the
socialization model is the significance of newcomers’ adjustment to new roles. Previous research focused on role property, task mastery, and self-efficacy mediating the relationship between socialization and outcomes. Organizational efforts (such as socialization tactics), characteristics and behaviour of newcomers (such as personality, experience, and information seeking) can also affect outcomes (such as attitudes, behaviour, and withdrawals) through work adjustment.

Previous research by Bauer et al (2007) shows the existence of a mechanism that connects socialization and outcomes, through adjustments to new roles. Role clarity, self-efficacy, and social acceptance are key indicators of employee adjustment. Bauer et al (2007) suggest that socialization tactics are related to the three types of adjustment, role clarity, self-efficacy, and social acceptance, which are in line with the suggested role of socialization tactics to reduce newcomers’ uncertainty (Allen, 2006; Jones, 1986). Newcomer adjustment shows that social acceptance is related to outcomes such as performance, work attitude, and turnover. Meanwhile, self-efficacy is related to outcomes, except job satisfaction and organizational commitment, and role clarity is related to all outcomes, except turnover (Bauer et al., 2007).

While previous studies emphasize the importance of adjustment of newcomers (Bauer & Erdogan, 2011; Bauer et al., 2007; Kammeyer-Mueller & Wanberg, 2003; Saks, Uggerslev, & Fassina, 2007), Allen and Shanock (2012) emphasize the importance of newcomers’ relationship with organization. This relationship links organizational socialization tactics and outcomes, looking at how newcomers see the relationship with organization as mutually supportive, caring and involving positive social exchanges. Previous study shows that socialization tactics can influence newcomers’ POS and their perception about organizational support will influence their commitment towards organization. This research proves that through relational mechanism, organization can bind their new employees, as a result of socialization tactics.

Socialization Tactics

Newcomers have the potential to experience reality shock, uncertainty, and anxiety in the new environment. Hence, organizations have an important role in helping newcomers during the process of absorption and learning through socialization tactics (Jones, 1986). Every organization has different ways of training and providing information to newcomers (Bauer & Erdogan, 2011). There are various ways on how organization provides information to newcomers, starting from the collective and formal in a series of activities, to individuals and informal activities.

One of the most developed socialization models is the typological model of Van Maanen and Schein (1979). Van Maanen and Schein (1979) define socialization tactics as ways in which organizations provide individual experience during the transition from one role to another role organized by organization members. This socialization concept considers six tactics of socialization, collective-individual, formal-informal, sequential-random, variable-fixed, serial-disjunctive and investiture-divestiture. This model explains how socialization methods can influence a particular outcome by using specific socialization tactics (Ashforth, Saks, & Lee, 1998; Song, Chon, Ding, & Gu, 2015).
Collective tactic forms groups of newcomers and place them through a series of learning experiences, individual tactic gives each newcomer unique learning experiences. Formal tactic separates newcomers from insiders as they study their new role, conversely informal tactic forces newcomers to learn by themselves without specific socialization program. Sequential tactic refers to a series of stages that lead to role assumptions, compared random tactic that is random or ambiguous. Fixed tactic provides a schedule set on the role assumption, while the variable does not. In the serial process, organization uses experienced members as role model during the process, while disjunctive does not use role model. Lastly, investiture confirms newcomers’ identity and attribute, while divestiture does not.

Socialization Tactics and POS

According to several previous studies, socialization tactics do not directly influence the member’s commitment. Previous study emphasizes the importance of relational mechanism linking socialization tactics and outcomes. Allen and Shanock (2012) propose that socialization tactics can directly influence on how newcomers develop their POS, which in turn will affect their affective commitment (Allen & Shanock, 2012).

According to Yoon and Lawler (2006), the theory of relational cohesion concerns about individual-to-collective attachments and proposes organization to provide some capitals including human, social and cultural capital, through ongoing social exchange. Human capital is based on knowledge, expertise and experience, social capital is based on relationship and cultural capital is based on an understanding of norms, history, and culture (Allen & Shanock, 2012). In the theory of relational cohesion, individuals are driven by their personal interests and are motivated to exchange so that they get benefit. This individual has the ability to experience, interpret, and produce emotional reactions to exchange the results. When this exchange is successful, the individual will experience positive emotional exchange reaction. However, when this exchange is not successful, the individual will experience negative emotional exchange reaction. So, this reaction determines the bonds between individuals with organization. Based on the theory of relational cohesion, through ongoing exchanges (socialization), newcomers build perceptions of support they get from the organization (POS), in turn it leads to affective commitment.
The construct of support in the theory of relational cohesion is defined as a belief that the organization treats individuals as deserving members. The idea of support in the theory of relational cohesion comes from POS construct, which refers to the perceptions of organizational members regarding the extent to which organizations value their contributions and care about their well-being. According to organizational support theory, the development of POS is driven by the tendency of employees to set characteristics like humans in organizations (Eisenberger, Huntington, Hutchison, & Sowa, 1986). Rhoades and Eisenberger (2002) describe how POS indicates social exchange relationships between organizations and employees (Rhoades & Eisenberger, 2002). POS develops because employees see good treatment or not as an indication that the organization believes they are deserving members. Individuals who feel supported will feel that the organization is willing to help them, respect, and recognize their achievement and value, which in turn will increase their performance and commitment (D. G. Allen, Shore, & Griffeth, 2003; Chiang & Hsieh, 2012; Kurtessis et al., 2017).

Based on the above explanation, then we propose the following hypothesis:

**Hypothesis 1:** Socialization tactics are positively related to perceived organizational support.

### Affective Commitment

Research regarding socialization has examined various outcomes. Most of them prove that newcomers’ perception regarding socialization tactics influence outcomes (Allen & Shanock, 2012; Ashforth & Saks, 1996; Cooper-Thomas et al., 2011). One of important outcomes from socialization is organizational commitment (Cohen & Veled-Hecht, 2010). In most cases, organizational commitment is believed as individual identification with organization, such as objectives, values, and their willingness to contribute more. Organizational member with high commitment will give organization competitive advantage, such as high productivity and lower turnover. Turnover potentially gives organization negative impacts because it will lose their trained members, and affect its productivity. Therefore, organizations of various sizes and types invest in organizational policies and practices that can encourage the commitment of its members.

Organizational commitment is seen as an individual's stable attitude that reflects a general affective response to the organization. This commitment is considered important because it is an important antecedent and outcome of organization (Allen & Meyer, 1990; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). Stallworth (2003) identifies three main components of organizational commitment: affective commitment, continuance commitment, and normative commitment (Demirtas & Akdogan, 2015; Shore & Wayne, 1993; Stallworth, 2003). Affective commitment is related to the emotional attachment and involvement of individuals in the organization. Continuance commitment is a commitment based on the costs associated with leaving the organization. Normative commitment is related to the sense of obligation that an individual has to remain within the organization.

This research focuses on commitment that bind individuals and social units (Thye, Yoon, & Lawler, 2002). This social unit can be a relationship, a network of organizations, organizations, communities, and others. This commitment is empirically manifested in attitude such as remaining within its social unit even though it has other alternatives, providing benefits to others within the social union, or cooperating with others. This research looks at how commitment develops in social exchange relationships during socialization.

Based on the above explanation, then we propose the following hypothesis:
Hypothesis 2: Perceived organizational support is positively related to affective Commitment

Start-up
Over the past few decades, start-up companies have received considerable attention in various countries, including developing countries. They are considered as one of the important factors in economic growth and source of employment. Previous research shows that a quarter to a third of the variation in economic growth and development in industrialized countries is caused by new independent businesses (Ansari & Riasi, 2016). Ries (2011) and Eisenmann et al (2011) define start-up as an institution designed to create new products and services (Bortolini, Nogueira Cortimiglia, Danilevicz, & Ghezzi, 2018; Chanin, Sales, Pompermaier, & Prikladnicki, 2018; Mercandetti, Larbig, Tuozzo, & Steiner, 2017; Sharma & Gupta, 2017). Usually this type of company is still developing its business model, which is repeatable and scalable by utilizing technology and innovation. Start-up is also defined as a small company that explores new market opportunities that are trying to find solutions in volatile markets. Even a company that is five years old can still be considered as a start-up where its business model is designed to grow very quickly (Vincent & Paul, 2018).

According to previous research, in the early stages of operations, some start-up companies did not have a sustainable business model. Mostly they start a new business with only a few basic concepts in thought, with very limited resources. Even sometimes the ideas are not clear about how they give value to their customers (Bortolini et al., 2018). However, start-up appears to make an impact and solve problems that exist in the community. Like most company, start-up also strives to develop its limited human resources to achieve competitive advantage by finding, recruiting and retaining its best talents. When its talent leaves the company and joins a competitor, he will not only bring talent but also ideas that are actually intended for previous start-up (Vincent & Paul, 2018). Therefore, this study aims at seeing how the socialization strategies are applied to newcomers and see their interaction with company, which in turn leads to employee’s commitment.

3. METHODOLOGY

Separation of Ownership and Management
This research focuses on studies of organizational newcomers which is defined as those who had been on a new job in a new company for 13 months or less (Tayla N Bauer et al., 2007). Sample consisted of 188 new employees in start-up companies. The sample was male (59%), with an average age 21-30 years old, an average of employee who had moved to work for 2-3 times (33%), and an average working experience less than a year (48%).

Measures
This research used Likert-type style in order to assessed all measures, ranging from ranging from 1 = strongly disagree to 6 = strongly agree.

Socialization tactics
Socialization tactics are defined as the ways in which organizations provide experience to individuals in the transition from one role to another that is composed by people within the organization (Ashforth & Saks, 1996). There are three dimension of socialization tactics, content, social, and context. These dimensions were measured
using items from Jones (1986) with a total of 12 indicators (Jones, 1986). This study assessed content with 5 items; a sample item is "I can predict my future career path in this organization by observing other people's experiences". Social was assessed with 5 items; a sample item is "I have received guidance from experienced organizational members as to how I should perform my job". Context was assessed with 3 items; a sample "This company puts all new hires through the same set of learning experiences".

**Perceived organizational support (POS)**

POS is defined as belief regarding the extent to which an organization respects and cares about the welfare of its members (Eisenberger et al., 1986). In this study POS was measured using 9 items from the Survey of Perceived Organizational Support. One example of the item is "The company values my contribution to its well-being".

**Affective Commitment**

Affective commitment refers to employee’s emotional attachment and involvement in the organization (Stallworth, 2003). It was assessed with 9 items from Mowday, Steers and Porter (1979). One example of item is "I really care about the future of this organization" (Mowday, Steers, & Porter, 1979).

### 4. RESULTS AND DISCUSSION

**Results**

The survey was conducted by spreading questionnaires to be filled out by the respondents. The total respondent who participated in the study is 188 people. The demographics consisted of gender, age, work experience and the frequency of changing workplace. This research tested the measurement and full model. Structural equation model (SEM) was used (instead of multiple regression) because it reduces measurement error and allows for simultaneous estimation of model parameter. Data are processed using program LISREL 8.8. The measurement and research model were tested using confirmatory and path analysis.

Before testing the measurement and full model, we first test the fit between the model and data sample in order to see whether data samples represent the population. The model was estimated with unweighted least square (ULS) procedure in LISREL 8.8. The result shows that theoretical model (Fig. 1) fits the data well. It shows an acceptable fit measure (RMSEA = 1.00; P-Value = 0.00; NFI = 1.00; NNFI = 1.040; Standardized RMR = 0.065; GFI = 0.98).

After looking at the fit between model and data, the next step is to test the fit of the measurement model by looking at the validity and reliability of the measurement (Wijanto, 2015). The results of validity and reliability test using LISREL 8.8 software from each variable are presented in the table below:

**Table 1. Validity and Reliability Test**

<table>
<thead>
<tr>
<th>Item</th>
<th>SLF ≥0.5</th>
<th>Error 0.7</th>
<th>CR ≥0.6</th>
<th>VE ≥0.6</th>
<th>Reliability/Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Socialization</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Good</td>
</tr>
<tr>
<td>Tactics Content</td>
<td>0.64</td>
<td>0.59</td>
<td></td>
<td></td>
<td>Validity Good</td>
</tr>
<tr>
<td>Social</td>
<td>0.8</td>
<td>0.36</td>
<td></td>
<td></td>
<td>Validity Good</td>
</tr>
<tr>
<td>Context</td>
<td>0.81</td>
<td>0.34</td>
<td></td>
<td></td>
<td>Validity Good</td>
</tr>
<tr>
<td>POS</td>
<td>0.74</td>
<td>0.41</td>
<td></td>
<td></td>
<td>Reliability</td>
</tr>
</tbody>
</table>
Table 1 shows that the reliability of latent variables is good. It can be seen that all construct reliability (CR) values are greater than or equal to 0.70 and variance extracted (VE) values are greater than or equal to 0.50. Although POS and affective commitment have VE below 0.50, it can be accepted if the value of CR greater than 0.60 (Fornell & Larcker, 1981). Thus, it can be concluded that all variables are reliable. Meanwhile observed variables (indicators) are valid with standard loading factor (SLF) values are greater or equal to 0.50. Some items (indicators) are not used in this processing because they have SLF lower than 0.50.

Furthermore, analysis of structural models (full model) is done by calculating the latent variable score (LVS), and then concluding the results in relation to the hypotheses in this study. Examining the influence of variables is done by analysing the structural model on LISREL 8.8. Path analysis was used to test the causal between variables. Hypotheses will be accepted if T-Value are greater than or equal to 1.96 (two-tailed). However, hypotheses in this study are categorized as one-tailed, hypotheses will be accepted if the absolute values of T-Value are greater or equal to 1.645 (Lind, Marchal, & Wathen, 2017). The result of path analysis is presented in the figure below:

**Figure 3: Path Diagram**
From Figure 3, it can be concluded that hypothesis 1, which proposed that socialization tactics would positively related to perceived organizational support, was supported. Socialization tactics were significantly related to perceived organizational support (T-values = 15.98, coefficient = 0.62). Hypothesis 2, which proposed perceived organizational support would positively related to affective commitment, was supported. Perceived organizational support was significantly related to affective commitment (T-values=5.02, coefficient = 0.52). In addition, this research also tested the relationship between socialization tactics and affective commitment. The result shows that socialization tactics were insignificantly related to affective commitment support (T-values = 1.51, coefficient = 0.07). Thus, it can be concluded that socialization tactics do not directly influence employees’ affective commitment.

Discussion

From Figure 3, it can be concluded that hypothesis 1, which proposed that socialization tactics would positively related to perceived organizational support, was supported. Socialization tactics were significantly related to perceived organizational support (T-values = 15.98, coefficient = 0.62). Hypothesis 2, which proposed perceived organizational support would positively related to affective commitment, was supported. Perceived organizational support was significantly related to affective commitment (T-values=5.02, coefficient = 0.52). In addition, this research also tested the relationship between socialization tactics and affective commitment. The result shows that socialization tactics were insignificantly related to affective commitment support (T-values = 1.51, coefficient = 0.07). Thus, it can be concluded that socialization tactics do not directly influence employees’ affective commitment.

Loading factor shows high influence of items on the content dimension. It indicates that start-up companies around Jakarta have higher attention to the content of their socialization by explicitly providing information to newcomers. They provide information regarding the sequence of activities related to the completion of each stage of socialization. Moreover, most of newcomers know when new assignments or training will be provided by the company.

Meanwhile, item of POS4, ‘The company strongly considers their goals and values’, has the highest loading factor compared to other items of POS. This indicates that newcomers feel that their company value their achievements and well-being. The appreciation and care that they received contributed to their POS. Thus, by providing detailed and evident information about the content of socialization will give more human capital to newcomers in the form of clear expectation and faster in acquiring the knowledge and skill needed. Result shows that socialization tactics of start-up companies focus more on the content they provide to newcomers, which in turn affect the perception of newcomers.

This study supports the result of previous research on the importance of the role of organizations in helping newcomers to adapt and learn their new role and environment (Allen & Shanock, 2012; Eisenberger et al., 2002). The positive experience experienced by these newcomers then leads to positive exchanges with the organization. Based on the theory of relational cohesion, exchanges that occur in the socialization process help newcomers develop their perceptions of support from the organization (POS), then it leads to employees’ affective commitment. The results of the study show that some start-up companies around Jakarta maximize their socialization tactics, especially on the socialization content they have. This shows that start-up companies care and want to invest in newcomers.

Second, the result also shows a significant positive relationship between POS and affective commitment. From Figure 3, it can be seen that item of POS4, the company strongly considers their goals and values, has the highest loading factor compare to other items of
POS. This indicates that newcomers feel that their company values their goal and achievements. POS develops because they see the treatment they receive from the company as profitable, based on experience with socialization agents (supervisors or experienced employees) and company policies. It also indicates that start-up company believe, respect, and care for the well-being of its employees (Allen & Shanock, 2012). In turn, employees will feel obliged to reply to POS with more effort and commitment. Thus, this positive treatment leads to affective commitment through perceived support. Item of COM6 shows most of employees feel that their company is the best of all possible organization for which to work”. It has the highest loading factor compared to other items of COM. This indicates that POS can bind newcomers to the company.

Eventually, this study supports the result of previous research on the importance of the role of organization in helping newcomers to adapt and learn their new role and environment (Allen & Shanock, 2012; Eisenberger et al., 2002). Socialization tactics do not directly influence employees’ affective commitment, yet it can indirectly influence commitment through relational mechanism by looking at the extent which newcomers feel he support and assistance from organization in the process of adaptation to the new work environment (POS). This finding is an advancement of previous socialization tactics research that suggest socialization tactics of start-up companies also have positive outcomes. Based on the result, well-managed socialization activities imply that start-up companies around Jakarta care about their employee and are ready to invest resources in helping them adjust to their new role and work environment which in turn will affect their commitment towards organization.

5. CONCLUSION AND RECOMMENDATION

Conclusion

As a conclusion, socialization tactics have a significant positive relationship toward affective commitment mediated by POS. Given the importance of newcomers-organization interactions, organization must maintain its socialization tactics that support the adjustment of newcomers that will enhance their POS and commitment. An employee will commit to the organization when they feel that organization support them. Furthermore, this study also provides support for the notion that POS was a predictor of commitment and it mediates the relationship between socialization tactics and affective commitment. Previous research shows that socialization tactics can directly influence how newcomers perceive company support, which in turn will affect their commitment towards company (Allen & Shanock, 2012). Socialization tactics have proven to influence outcome through relational mechanism captured by POS. Thus, relational mechanism captured by POS can explain how socialization tactics influence newcomer’s affective commitment that binds them to the company.

Recommendation

This research suggests a potentially viable strategy to enhance employees’ commitment. The result can be used by start-up company to bind their employees by emphasizing the importance of newcomers’ relationship with company. Moreover, this study proves that POS mediates the relationship between socialization tactics and employee affective commitment. In other words, company can improve POS in order to increase employees’ commitment. The result indicates the importance of newcomer’s relation with company in their first year at the company. The initial socialization experience is important in building relationships that can help employees be more committed to the company. Since POS can influence employees’ commitment, company needs to be aware about that socialization tactics that may not directly influence commitment. Rather, as suggested by Allen and Shanock (2012), socialization tactics serves as a signal to employees about the extent to which the company values and
cares about their POS, which then contributes to employees’ commitment (Allen & Shanock, 2012).

In addition, this research suggests that the history of treatment received by employees will likely influence POS, in turn POS will influence employees’ commitment. This implies that when socialization tactics are well-managed by organization, the benefits in terms of influencing commitment may not occur immediately. Future research needs to examine the impact of socialization tactics on POS and commitment using a longitudinal design. Since early perceptions may have a greater impact than later perceptions, it would be better to measure newcomer’s perception of socialization tactics two weeks after newcomer began employment because some companies were to complete employee orientation within two weeks and examine POS and commitment after several months of work (D. G. Allen & Shanock, 2012; Cooper-Thomas et al., 2011).

Another limitation of this study is it only discusses the mediating effect of POS, which is proven to mediate the relationship between socialization tactics and affective commitment. There is a possibility that there are still other variables that can mediate this relationship. Furthermore, the sample used in this study was only for newcomers in start-up companies around Jakarta, allowing differences of opinion between employees of start-up companies around Jakarta and other regions. The results of this study may not be able to generalize the debate regarding the relationship of socialization and commitment of start-up companies in other regions.

REFERENCES


The Influence of Work Schedule Flexibility to Enhance Employee Work-Life Balance at Start-up Companies in Indonesia

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Abstract

Work-life balance is one of the benefits that can be offered by companies. These benefits can be obtained through work schedule flexibility programs with support by supervisors and their workplace. This study examines how employees at start-up companies cope with work demands and family responsibilities. Start-up is a newly created company with technology and software-based, with no operating history. Work-life balance could be achieved through work schedule flexibility and the supports could be formal, informal, and lower-cost policy’s benefits for these employees. This study uses quantitative methods with a questionnaire. The sample selection method is non-probability with purposive sampling. It specifically selects employees of start-up companies that have implemented flexible work schedule, thus obtaining 228 respondents. After data cleaning, there are 224 questionnaires could be processed further with structural equation modeling by using the Lisrel 8.80. The finding shows that implementation of flexible work schedule would be successful if employees obtain supports from both their supervisors and work environment. Support from work environment has a greater influence on work schedule flexibility than support from supervisors. The result also shows that, if flexible work schedule is implemented properly, work-life balance could be enhanced.

Keywords: start-up companies, supervisor support, work-life balance, work-place support, work schedule flexibility.

1. INTRODUCTION

Research related to family relations and work since the 1990s according to Clark (2000) has been widely discussed in the realm of academics and practitioners. Adisa, Mordi, & Osabutey (2017) said that the research was again being discussed again at this time. Discussion related to work-life balance arises to overcome conflicts that often occur in a family caused by the large demands of work (Clark, 2000); (Adams & Jex, 1999). Throughout the history of research, many studies related to work-life balance seen from women's issues according to Walker, Wang, and Redmond (2008); Moore (2007); Agarwal and Lenka (2016) that women play a role not only as wives and mothers related to managing
home and children in the midst of family life, but also have a role in the middle of social life that they must live as a working woman. But the reality is not only women who have multiple responsibilities, the men also feel that position, when work and careers are a top priority over friendship, social activities, holiday activities, even family (Muna & Mansour, 2009; Jang, 2009; Baral & Bhargava, 2010).

To realize the balancing of work and life Goff, Mount, and Jamison (1990); Parasuraman, Greenhaus, and Granrose (1992); Carlson and Perrewé (1999) in their study stated that support from supervisor was needed by employees to gain the balancing. This is in line with the research conducted by Lauzun, Morganson, Major, and Green (2010), who discussed, the supervisory support on the flexibility of work scheduling, emotional support, or training can be useful to destroy the problems in employee's life in the midst of work, personal, and family matter.

In addition to support from supervisors, Hammer, Kossek, Yragui, Bodner, and Hanson (2009); Jang (2009) in his study said that companies also need to create support from the workplace such as the availability of facilities or atmosphere from supportive colleagues, which is also useful to create work-life balances for employees. Such supports cannot directly affect the balancing of employee's work and life but they need work schedule flexibility as a formal or informal policy (Jung, 2009); (Janter, Anderson, & Kuehl, 2017). With the result that, the policies can regulate the employees to fit their time for balancing their work and their life. In the fact that work schedule flexibility is implemented well, when the attendance of supervisors and workplace supports them, and this support can provide the coziness for employees implementing the flexibility (Jang, 2009; Lauzun, Morganson, Major, & Green, 2010).

The practice of work scheduling flexibility is widely applied by start-up companies. This is due to the severity of the conditions faced by companies such as a dynamic and rapidly changing work environment, up to the very rapid growth in the use of technology (Berg, Birkeland, Nguyen-Duc, Pappas, & Jaccheri, 2018). On the other hand, Wasserman (2016) discusses start-up companies rely on the number of workers, business risks, and system difficulties they have. According to Caseiro and Coelho (2018) start-up companies that are attempt to run a new business, have many limitations, so they need to maximize using existing resources. One of the most valuable is resources for the company survival according to Vomberg, Homburg, & Bornemann (2014); Wilden, Gudergan, & Lings (2010) are individuals as employees. So it is important for start-up companies to provide the benefits as well as work-life balance to their employees because as a start-up company they might not be able to pay more for a kind of low cost-company (Das et al., 2018).

Based on the explanation above, this study aims to measure how much influence the supervisor and workplace support to balance employees work-life mediated by flexible work schedule. This Research focus on employees at Start-up companies which have flexible work scheduling.

2. LITERATURE REVIEW

Supervisory and workplace support to achieve work schedule flexibility

The supervisors can provide support to employees such as emotional support (Lauzun, Morganson, Major & Green, 2010); (Achour, Khalil, Ahmad, Nor & Zulkifli, 2017). Support from supervisors felt by employees according to Guchait, Cho, and Meurs, (2015) is a form of the employee's general view of the amount of concern and respect that is directed by superiors for the contributions that employees have given to the organization. According to Lauzun, Morganson, Major, and Green (2010) support from the supervisor had a significant impact, because supervisors have full authority and rights to directly interact with their
subordinates. Start-up companies in Indonesia according to Warandi and Fujirawa (2018) tend to have a leaner organizational structure and allow the decision-making process to run quickly. In general, according to There are three characteristics of Anthony (2012) there are three characteristics of start-up companies, namely having a flat organizational structure, having a tendency to innovate, and ultimately enabling them to become establishments.

Achour et al. (2017) define supervisor support as a form of emotional and instrumental support from supervisor to their workers to balance between work responsibilities as well as family. In addition, Jung (2009) show that supervisor can provide the support to employees in order to carry out the flexibility of scheduling work properly, such as the form of attention by listening to complaints from employees when they get constraints in balancing between work and family, and being fair to all subordinates. Moreover, not only supervisory support, but also workplace support is needed by employees in carrying out work schedule flexibility.

Jung (2009); Taylor, DelCampo, and Blanero (2009); Jantzer, Anderson, and Kuehl (2017) show there are several forms of the workplace support could be obtained by colleagues, non-formal policies, and also and also from physically the workspace itself which support employees to run a balance between work and their own life. In addition, the study by Yuile, Chang, Gudmundsson, and Sawang (2012) show that the work schedule flexibility can enhance individual perceptions of the work-life balance program offered by the organization. Work schedule flexibility can be an option to improve an employee’s work-life balance (Voyandoff, 2005). Tausig and Fenwick (2001) which identified that flexibility would be benefits for both between employees and employers if supervisors and management support their employees to execute the flexibility well. In other side, when the employees failed to manage the flexibility, then a balance between life and work would not be achieved (Tausig and Fenwick, 2001).

**Hypothesis 1a:** The higher the start-up employee perceives supervisory support, the higher the perception of applying related to the flexibility of the work schedule.

**Hypothesis 1a:** The higher the start-up employee perceives workplace support, the higher the perception of applying related to the flexibility of the work schedule.

*Work schedule flexibility to enhance work-life balance*

As someone who has worked, the demands for personal allocation of time will change. That can take up highly of the time, sometimes the duty takes time beyond working hours. Changes in complexity in the business world require new consideration by the organization of work-life and other life outside of its work. according to Russell, O’Connell and McGinnity, (2009) some options that were given by companies to balancing employee work and life, employers can be given the flexibility of personal work hours. Nowadays, the concern of workers is not only to achieve financial excellence but also with non-financial benefits such as work-life balance (Muna & Mansour, 2009); (Kim, & Mullins, 2014). In Addition, Muna and Mansour (2009) show in their study that benefits can affect most HR functions as the recruitment, training, retention, and also retirement preparation. Hill, Hawkins, Ferris, & Weitzman, (2001); McNall, Masuda & Nicklin, (2009); Russo, Shteigman, and Carmeli (2015) define work-life balance is employee perception of balancing on their own life.

According to Kelliher and Anderson (2008) flexibility in managing work schedule can be like different sides of a coin. When the flexibility of work schedule is made by management and then carried out by employees, in order to help employees achieve work and family balance, it is considered to reduce stress levels in their lives (Kelliher & Anderson, 2008). On the other hand, it could be that with flexibility, it increasingly makes an employee
feel anxious and stressed because he cannot take advantage of the flexibility provided well, resulting in imbalances in their lives (Russell et al., 2009). Hill, Hawkins, Ferris, and Weitzman (2001); McNall, et al., (2009) states that not only flexibility in work scheduling a form of flexibility but also flexibility in choosing a place to work. But in this study the researcher only focused on the flexibility of work schedule offered by start-up companies to their employees. Flexibility on working hours offer by the company to provide employees convenience choosing the right time and the right place to work, finally, it should help them to balance between work and their life (Kellihier & Anderson, 2008). Hill, Hawkins, Ferris, and Weitzman (2001); McNall, et al., (2009); Jang (2009) confirm that work-life balance will be enhanced when flexibility of work scheduling can be carried out properly by employees. Based on the above research, the hypothesis can be drawn, namely:

**Hypothesis 2:** The higher perceived flexible work scheduling, the higher start-up employee perception of work-life balance.

**Start-up Company**

Nowadays, technological development proceeds to increase rapidly. Simultaneously that the growth in the number of internet users in the world has also increased. World internet statistics show the growth of internet users since 1999 which is only used by 4.1% of users and the latest report in 2017 has been used by 54.4% of users. BarNir (2012) said that most entrepreneurs who have just started the business are looking at the size of internet users today, so the company's focus is to use technology and the internet as a driver of business core activities.

The violence of the demands of work is felt by workers at start-up companies. This is because start-up is the leading company in the practice of technology development, also has a dynamic work environment and is fast in changing (Berg, Birkeland, Nguyen-Duc, Pappas, & Jaccheri, 2018). Wasserman (2016) states that the level of technological development in this company depends on the complexity of the system, the number of workers, as well as the risks of the business being run. start-up as a new company that is pioneering, has limited resources (Caseiro & Coelho, 2018). They tend to utilize all of the resources owned. This limited labor force workers to work more, even though that is not actually part of their job description (Caseiro & Coelho, 2018).

Previous researchers defined the start-up company as a small-scale company that was just starting out, dominated by young workers who had high creativity and desired on flexibility in scheduling personal work (Moroni et al. (2015); Oukes, et al. (2017); Capnary et al. (2018). Therefore, start-up companies depend on their human resource experience, which with their abilities and knowledge can help the company achieve its goals (Coleman & O’Connor, 2008). Anthony (2012) states that there are three characteristics of start-up companies, namely: companies have a flat organizational structure, this company has a tendency to work with open innovation, ultimately enabling them to go to large stable companies, such as Bukalapak and Gojek.

**3. METHODOLOGY**

**Sample and procedure**

This research is a cross section conducted in 2018 in several regions in Indonesia using online and offline questionnaires as research instruments. The sampling method used was purposive sampling with a sample non-probability technique that allows the researcher to choose anyone as a respondent with the condition that the respondent who fulfill these criteria (Cooper & Schindler, 2014). In this study, respondents must be part of start-up companies.
that have the flexibility of work schedule policies. After going through many processes and many time by visiting 25 start-up companies around Jakarta, we were collected 173 respondents. This survey also distributed through online questionnaires that were collected from West Java, East Java, Riau, West Sumatera. Finally, this research conducts 228 respondents from Indonesia. According to Cooper and Schindler (2014), to measure the minimum number of samples, the formula used for reach minimal sample is the total number of indicators multiplied by five. If using this formula, this study requires a minimum sample of 70 respondents.

Furthermore, after collecting all the questionnaires that have been distributed previously, afterward data processing can be done by the Structural Equational Modeling (SEM) method with using the Lisrel 8.80 program. Analysis by using SEM technique was chosen because the procedure can directly combine measurement and structural models. With the result that, it can see first-hand the relationship of influence between variables.

The overall suitability test of the model according to Wijayanto (2015) is done to generally evaluate the degree of compatibility or Goodness of Fit (GOF) between the data and the model. The compatibility indicator of the whole model can be seen from the value of Goodness of Fit Index (GFI) when GFI fit 0.9 and the value of $0.8 \leq GFI <0.9$ is referred to as marginal fit. In addition, the value is seen by RMSEA, when RMSEA up to 0.05 indicates close fit, while a good fit was indicated by RMSEA $\leq 0.008$ and poor fit was indicated by RMSEA $\geq 0.1$. The measurement model test is executed on all constructs separately by evaluating reliability and the validity of the measurement model. This can be seen from the standardized Factor Loading (SLF) $\geq 0.7$ and the factor loading value $\geq 1.96$ which indicates that the validity for each construct is good. While the value of variance extracted (VE) $\geq 0.5$

**Construct Reliability (CR) $\geq 0.7$** is used to see the reliability of constructs.

**Measures**

Each question on this survey were proposed by Jung (2009) and answered on six likert scale of (1) strongly disagree, (2) disagree, (3) slightly disagree, (4) rather agree, (5) agree, (6) strongly agree.

**Endogenous Latent Construct: work-life balance:** This latent construct was consisted of three items such as (1) the job and family life interfere with each other, (2) difficulties in managing the demands of work and personal/family life, (3) employees do not have enough time for family/other important people in their lives, because of work. All questions for this latent used reverse scale. This variable was valid and reliable with Construct Reliability (CR) $\geq 0.70$ to wit 0.91 and Variance Extracted (VE) $\geq 0.5$ to wit 0.76.

**Mediating Variable: Flexible work schedules:** The items for measuring flexible work schedules were consisted of three question. First, I can arrange my own hours. Second, My work schedule matches what I want. And the last, I have the ease of permission on weekdays when I have family matter. This variable was valid and reliable with CR 0.94 and VE 0.61.

**Exogenous Latent Constructs:**

**Perceived supervisor support:** This latent construct was measured with four item, those are (1) my supervisor is fair and does not show favoritism in responding to the person or family needs of his employees, (2) my supervisor gave me permission to handle me having a family or personal agreement such as a doctor's appointment, a meeting with my child's teacher, etc. (3) my supervisor understands, when I talk about personal or family problems that affect my performance, (4) my supervisor really cares about the effect of work on my family's personal life. Those were valid and reliable question by CR 0.85 and VE 0.59.
Perceived workplace support: The questions for this variable consisted of four items and the items were measured with the reverse scale. First question, There is an "unwritten" rule at my workplace that "I cannot take care of family needs during working hours". The second, at my office, employees who place their families or personal interests in their jobs are seen as not good. The third, when I have difficulty dividing work and family responsibilities, the workplace attitude is to let me face it alone. And the last, at my office, employees must choose between career advancement or attention to family / personal affairs. The fourth question was valid and reliable by CR 0.82 and VE 0.63.

4. DATA ANALYSIS AND FINDINGS

In this study, was collected 224 questionnaires to analyzed. Based on the survey, the majority of 54.9% respondent that worked at start-up company in Indonesia with the female gender. Amount of 65.6% of respondent is not married, and 73.7% respondents live with their family. Based on age 78.6% is 20-30 years, amounted to 65.4% with the highest education level bachelor. The majority of respondents worked as a staff with a percentage of 70.5% and the majority of the tenure at the company less then 1 year with amount 54.0% respondents, with a majority of 33.5% respondent have a monthly income of Rp. 3,100,000 – Rp. 5,000,000 per month.

The confirmatory factor analysis and SEM method were used by LISREL Version 8.80. SEM is a multi-variable technique that allows researchers to find out the extent to which available data can be consistent with the theory (Jung, 2009). In addition, SEM would minimize the measurement errors in the estimation model of all relationships, which based on the guiding theory and examined simultaneously (Wijayanto, 2015). The confirmatory factor analysis tested latent variables in previous studies actually reflected to the factors that intended to measure and the items relate to the current research. The Goodness of Fit Index (GOFI) shown in Table 1 is known overall between data processing and model are fit each other. Based on Wijayanto (2015) SEM depend on several statistical tests, regarding model fit statistics such as the root mean square error of approximation (RMSEA), P-Value, normed fit index (NFI), the normed fit index (NNFI), standardized root mean square residual (Standardized RMR) and the goodness-of-fit index (GFI).

<table>
<thead>
<tr>
<th>Table 1. The Goodness of Fit Index (GOFI)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>GOFI</strong></td>
</tr>
<tr>
<td>p-value</td>
</tr>
<tr>
<td>RMSEA</td>
</tr>
<tr>
<td>NFI</td>
</tr>
<tr>
<td>NNFI</td>
</tr>
<tr>
<td>Standardized RMR</td>
</tr>
<tr>
<td>GFI</td>
</tr>
</tbody>
</table>

Source: The results of processing primary data using Lisrel 8.8

Hypothesis testing is held by using path analysis. The significance of the relationship between variables is determined from the value of t is greater than t table 1.645. In addition, standard coefficients also need to be considered, where these significance show positive or negative influences between each variable.
Based on the results, t-value of supervisory support for work schedule flexibility shows 14.66 and the value of a standardized solution shows 0.61. T-value is greater than 1.645 and standardized solution is positive, its means supervisor support has significant influence and positive impact on work schedule flexibility. On the other hand, the effect of workplace support on work schedule flexibility shows the t-value of 12.02 and standardized solution’s value shows 0.39, which means work place support has significant influence and positive impact on work schedule flexibility. Furthermore, work schedule flexibility also has a positive and significant relationship to work-life balance, which is indicated by the value of t-value 3.46 and the value of standardized solution 0.32. Therefore, it can be concluded that the first and second hypothesis is accepted.

**Table 2. Hypothesis testing result**

<table>
<thead>
<tr>
<th>Research Hypotheses</th>
<th>t-value</th>
<th>Significant Testing Result</th>
<th>Result</th>
<th>Factor Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supervisory support positively influences the work schedule flexibility for employees at start-up companies in Indonesia.</td>
<td>14.66</td>
<td>Significant</td>
<td>H1a Accepted</td>
<td>0.61</td>
</tr>
<tr>
<td>Workplace support positively influences the flexibility of work scheduling for employees at start-up companies in Indonesia.</td>
<td>12.02</td>
<td>Significant</td>
<td>H1b Accepted</td>
<td>0.39</td>
</tr>
<tr>
<td>Work schedule flexibility positively influences work-life balance of employees at start-up companies in Indonesia.</td>
<td>3.46</td>
<td>Significant</td>
<td>H2 Accepted</td>
<td>0.32</td>
</tr>
</tbody>
</table>

Source: Results of 2018 primary data processing.

5. DISCUSSION

Based on data obtained through questionnaires and data processing by researchers, it was found that workplace and supervisory support had a significant positive effect on the flexibility of work schedule. It can be seen from supervisory t-value of 14.66 and workplace t value of 12.02. Furthermore, there is a significant and positive influence on the flexibility of scheduling work on work-life balance, which can be seen the indicates t-value of 3.46. These results show that the higher the support provided by superiors and/or work environment, the higher the flexibility felt by workers in carrying out their daily activities. In addition, the perceived flexibility is known to be able to increase the balancing between work and life of employees, especially for those who work at start-up companies in Indonesia.

The result of supervisory workplace support influences the work schedule flexibility was obtained by Warren and Johnson (1995); Jang (2009); Zhou, Martinez, Ferreira, & Rodrigues (2016) when employees get support from their superiors, they will easily be able to demonstrate the flexibility of work scheduling offered by the company. In this study, most of the respondents were employees or staff, amount 70.5% and the least were respondents with a top management position of 2.2%. This percentage shows that most of the respondents have superiors and can represent the results of a research well. Based on path analysis, it is known that there is a significant positive effect on supervisor support for the flexibility of work schedule offered by start-up companies in Indonesia.
In the fact that, based on the result overall the flexibility policy offered by the company can be implemented by employees at start-up companies in Indonesia. As a whole has a mean value of 4.97 and falls into the high-class category. Most of the respondents felt suitable schedule set by them personally. These results suggest that the majority of respondents who are working in start-up companies perceive when they have other business outside of work, the company easily gives permission to take care of this.

![Figure 2: Structural Model of Standardized Solution Output Lisrel](image)

Chi-Square=0.00, df=75, P-value=1.000000, RMSEA=0.000

To see the extent to which support from supervisory and workplace affects work schedule flexibility of employees at start-up companies. An analysis has conducted the value of factor loading of the test results in a standardized solution, which shows in Figure 2. The score of influenced variable supervisory support toward work schedule flexibility is showing the highest loading factor score. From the third question of work schedule flexibility which have the highest score, namely “I get the convenience of taking permission at working hours”, noted that employees perceived that they were easier to take permission by their supervisor. The result also shows their supervisor understand and aware when the employee was talking about their personal or family matter. And in start-up workplace, it doesn't matter for employees to choose family life rather than focus on career advancement. For the millennial generation, which is the majority of respondents in this study, according to Capnary, Rachmawati, and Agung (2018) good communication is important factors needed by employees. Communication between employees and supervisors needed to create an environment that supports of work-life balance.

Moreover, the value of factor loading score that showing in Figure 2, a flexibility of work schedule have a positive effect on employee work-life balance. From the question on the questionnaire, their would perceive balance when they have enough time for there family or their self, they can manage the demands of the job well, and work and family life do not interfere each other. When the flexibility offered by the company can carry out well by the employees, it means the balancing between work and life can be achieved properly by employees. This is in line with research conducted by Capnary, Rachmawati, and Agung.
(2018) found that several start-up companies in Indonesia decided to apply the flexibility of work schedule to their companies. This is one way to provide a balance of work and life for start-up workers, the majority of which are generations of millenials. And by variables of work and life perceived by employees at start-up companies obtain a mean value of 4.27 which falls into the rather high category. This is aimed at overall employees at start-up companies who feel they have gained balance in work-life and life outside the context of their work.

Support from supervisors in the form of concern for the work-life balance, addressing that with this support can help workers to resolve conflicts that occur on work and family (Hammer, Kossek, Yragui, Bodner, & Hanson, 2009). Besides that, workplace support influences the work schedule flexibility was obtained by Sahibzada, Hammer, Neal, and Kuang (2005); Taylor, DelCampo, and Blanckero (2009); Jantzer, Anderson, and Kuehl (2017) in their study show that the form of workplace support can be either informal or informal. In their research also show that the support is known to have a positive impact to meet employee demands for balance in work and life outside of work. Looking at the four questions of workplace support was given in the questionnaire, it is known that overall support from colleagues or management was felt by employees in various matters in the workplace. The management also provides independence for employees to be able to choose between career advancement or focus on their family. At start-up companies, employees feel that they are not required to pursue careers and abandon family responsibilities. This support can increase the ease of implementation of flexibility policies in scheduling employee work at start-up companies. Based on this hypothesis, when employees feel the support from the workplace such as moral support from the management or from coworkers, the application of work scheduling flexibility can be carried out well and easily by employees.

Furthermore, after obtaining convenience in carrying out work scheduling flexibility, respondents who were working at start-up companies confirmed that they could improve work and family life balance. This is in line with the results of current research based on data collection through questionnaires, where it is known that the majority of employees in start-up companies aged 20-30 years that was 78.6% respondents, and it shows that most of them have a large concern about work-life balance. Because of that, the employers need to provide supervisors and workplace that can support employees in carrying out work schedule flexibility that has been offered (Jantzer, Anderson, & Kuehl, 2017); (Jang, 2009); and (Zhou, Martinez, Ferreira, & Rodrigues, 2016). In this study, employees who feel and can run the work schedule flexibility well, they also get a higher level of work and life balance. In addition, Jang (2009) shows that for small with low-cost companies, the policy of flexibility in work schedule can be one solution to providing benefits. For this reason, full support from supervisors are needed and the company also needs regarding the conditions and environment of the workplace which supports work-life balance programs.

6. CONCLUSIONS

The results of research at start-up companies, it is known that the majority of worker in the companies was millenials. The support provided by the supervisor and the workplace have positive and significant impact on flexibility in work schedule with employees who work at start-up companies. The result was indicating employees who perceiving supervisory and workplace support as well, would perceive higher level flexibility of work schedule. Furthermore, work-life balance would be obtained by employees when they perceived work schedule flexibility. The higher the flexibility can be felt by employees, the higher the chance of start-up employees help them self balancing between work and family responsibilities. Our
finding also complements the existing previous research on the field of work-life balance discussion.

Currently, most of the companies face an increase in the number of millennial generations in the world of work. This might require those supervisors not only carry out work-related tasks, but they should execute more complex roles. Therefore, based on this study the authors suggest some managerial implications that can be applied by start-up companies in Indonesia. Flexibility in work schedule can be executed by start-up employees when the supervisor and the workplace support them to run it well. In order to, the company management especially HRD, can provide special capacity building programs for each supervisor to serve as a bridge between employees and the company, such as knowing what employers have and matching with employees need. From the training provided, it is expected that the supervisor more caring and attentive to his employees to occupy their work-life balance.

Base on the survey, the mean value for the supervisor support variable perceived by respondents at start-up companies is 4.92 which means the answers by respondents fall into the high category. Nevertheless, workplace support variables have a mean value of 4.31 which belongs to the rather high-class category. This value indicates that the workplace at start-up companies have rather high support. Therefore, researchers suggest that companies should increase their support so that the balance of work and the lives of their employees can be more fulfilled.

Employers should create an atmosphere and work environment that can encourage employees to implement this flexibility. Due to the fact that, employees will enforce this flexibility when they perceive there is no "unwritten" rule that requires them to focus on work and omit family matters. some form the workplace support is, their colleagues will not offer a bad view when among them must choose to accomplish family matters during working hours. Including the other factors that can influence their employees to get work-life balance. The next researcher is expected to be able to conduct focus group discussions or in-depth interviews to enrich information related to the company by received on that flexibility. Whether flexibility is useful or even has a negative impact on the company itself.

REFERENCES


The Role of Leadership and Organizational Culture on Succession Planning of Family Company in the DABN Corporation

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**Abstract**

This research aimed to describe the role of leadership and organizational culture on succession planning in the DABN Corporation. The background of this research was the company needed an illustration about what kind of leadership's role and organizational culture which could be applied in succession planning. The prospect after the result was out that it would be used as a reference for the leadership in next generation (succession). This research was done by using qualitative research method interactively with in-depth interview. The result of this research proved that leadership's role had been going well. The organizational culture in the DABN corporation hadn't ran optimally yet because of the standard procedure operational and lacked of evaluation from the leader. The successor already had an ability to be a leader, but he had to learn more and needed motivation to increasing his desire to learn.

**Keywords**: leadership, family business, organizational culture, succession, founder's mentality

1. **INTRODUCTION**

In this Industrial Revolutionary 4.0, the company operates in a highly competitive global environment, interspersed with an economic crisis. The economic crisis that had an impact on the sluggish world of business climate resulted in many companies having to make other downsizing or internal consolidation efforts in an effort to save money to be able to maintain survival and achieve growth through effective and efficient performance. The challenges that arise from Indonesian society and culture as an external business environment are not enough to only be answered by Corporate Social Responsibility programs and the like. These challenges must be answered and transformed into opportunities through corporate culture, namely corporate culture that takes into account the influence of national culture or also called basic elements (Chrisman et al., 1998).

One important element in the company's management system to employees is leadership. The results of several studies indicate that leadership is needed to improve the competitiveness of companies in a sustainable manner. Leadership is a process where a
person can become a leader through continuous activity so that it can influence the people he leads in order to achieve organizational or company goals (Huang, 2001).

Organizational culture cannot be separated from leadership in organizations because organizational culture grows and develops with strong founders and organizational leaders (Wayne and Ferris, 1990). Organizational development is very dependent on the ability of the leader. However, leaders can act correctly in managing the organization, but also do not escape the possibility of making mistakes. The role of leaders is crucial, especially if changes in organizational culture are needed, especially in global developments where inter-cultural interactions occur (Collins and O’Regan, 2010). Therefore, leaders are also required to become learners of organizational culture, have the ability to manage organizational culture in accordance with the level of organizational growth and strategies developed in achieving organizational goals (Ardichvili et al., 2003).

As mentioned, highly successful companies have taken advantage of the value of developing and managing a unique organizational culture. This organizational culture can be created by the founders of an organization or company, and can also emerge from time to time as an organization's steps to face challenges and obstacles, or be developed by management to improve their company's performance (Fulmer, 2002). According to Maguta (2016), in organizations, of course there are many factors that influence a person to achieve his goals, while the course of the organization is influenced by behavior that has its own interests. Therefore, organizational culture is very important because it is the habits that exist in the organization.

These habits govern the norms of behavior that must be followed by members of the organization, so as to produce a productive culture. Family companies are one type of company that have a significant contribution to the world economy, especially in Indonesia itself. An organization is called a family company if there is at least two generations of involvement in the family and they influence company policy (Morris, Williams, Allen, and Avila, 1997). At least 2018, the Jakarta Consulting Group showed 88% of national private companies are in the hands of families. This proves that family companies play a big role in the economy. The success achieved by family companies indirectly helps to increase employment rates in a country.

Saan et al. (2013) said about 90 percent of all businesses incorporated in the United States; about 17 million operating companies are family-owned companies. As the founders who run their business, of course they want the company to be built to last long. Therefore not a few of them include family members in managing business in their company with the aim that someday they can continue the business that has been built (Sharma et al., 2003). According to Obada and Ohiorenoya (2013), there are seven family company myths, such as: (1) family companies are not professional, (2) there is no separation between corporate finance and personal finance, (3) family companies are considered unable to implement healthy systems and procedures, (4) family companies only provide opportunities for family relatives to occupy key positions, (5) performance is not important, but more important is the ability to foster close relationships with owners, (6) family companies will end up in the hands of second generation, and (7) family companies do not view HR as an important company asset.

According to Sharma et al. (2001) stated that one of the issues in family companies which has important to note is the problem of succession. Succession is the transfer of leadership and leadership from the senior generation to the younger generation. Issues that arise in succession include unclear succession plans and conflicts between potential successors. The thing that must be considered is not to let this leadership transition result in the obstruction of company activities, which ultimately disrupts the company's business performance.
The DABN Corporation is a company engaged in the underwater contractor located in Surabaya, East Java. Currently, the number of permanent employees of the DABN Corporation is as many as 5 people plus 4 people who are in the management section. Other employees are freelance employees. This company belongs to a family company, where there are 4 family members who are members of the company's management. Another reason why this succession has begun to be planned is because Founders want to concentrate on developing the business in a bigger direction, namely developing wings to the energy sector that was once pioneered so that the DABN Corporation has become more extensive in its field of work. This is reinforced by a statement from the Organization of Petroleum Exporting Countries (OPEC).

With the statement from OPEC, the future of energy, especially for oil, will be brighter so that it creates many opportunities to reap the benefits of this field. With the background of the company's founder who has been in the energy sector, he plans to develop the company into the energy sector. Later, successors will be tasked with improving company management from within, namely for the operational and administrative fields. Because it is included in a family company, then in its leadership, the leadership of the DABN Corporation still applies several family cultures in the work environment.

However, there are a number of things that are felt to be not in accordance with the conditions needed, so that leadership concepts are needed that are in accordance with leadership theory based on organizational culture. The hope, after getting the results, will be used as a reference for leadership in the next generation (succession). The purpose of this study is to describe the leadership role and organizational culture on succession planning in the DABN Corporation. The benefits of this research are to contribute in the form of thoughts, insights, and additional knowledge, especially the results of new findings that are beneficial for the development of the science of leadership and organizational culture in general.

2. LITERATURE REVIEW

Succession of Family Company

A family company is a company consisting of two or more family members, who have 15% or more shares, and family members are employed in the company, and they will continue the business in the future (Davis, 1968; Wayne and Ferris, 1990; Claver et al., 2009). In a family company there must be influence from within the family members in the management of the company, which is active, helps shape the corporate culture, as a leader, who is active as a shareholder, besides there is concern for inter-family relations (Malone, 1989; Handler, 1990; Kim, 2010). Family business is unique because of the involvement of family members in the process of making decisions, policies and regulations, shares owned, and so forth. Grezgorek (2008) said that family businesses in Indonesia dominate and spread in various fields of industry and organizations.

Kim (2010) explained that succession is the transfer of ownership and leadership from the senior generation to the younger generation. Issues that arise in succession include unclear succession plans and conflicts between potential successors. The thing that must be considered is not to let this leadership transition result in the obstruction of company activities, which ultimately disrupts the company's business performance. Succession is a very important stage and determines the family business. Davis (1968) in Collins and O'Regan (2010) stated that the thing that influences succession is family attitudes. Family attitudes that do not support the successor will adversely affect the continuation of the family business.

Succession is always related to intergenerational or multigenerational change (Malone,
1998; Habberson and Pistrui, 2002). The multigenerational issues that arise one of them is the lack of the desire of the old generation to share power with the next generation (Seymour, 1993). Succession planning is done first by determining criteria. Morris et al., (1997) in Obadan and Ohiorenoya (2013) stated that there are several criteria needed by prospective successors: 1.) Have adaptability; 2.) Having interest and participation; 3.) Having a vision in the sustainability of the company. The application of succession planning can work well if the successor selection process and preparation for successor are also running smoothly. The values that are in the process of selecting successors are as follows: 1.) Communicative; 2.) Objectives; 3.) Passion; 4.) Competence; 5.) Attitude and talent; 6.) Vision; 7.) Empathy; 8.) Rules in choosing (primogeniture) (Wayne and Ferris, 1990; Barrach And Ganitsky, 1995; Graves and Thomas, 2008).

**Leadership**

According to Akiniyi et al. (2018), leadership is a process affecting the activities of a person or group of people in an effort to achieve a goal in certain situations. Leadership is the way a person influences the behavior of subordinates, in order to cooperate and work productively to achieve organizational goals and is the ability to influence the activities of others through communication, both individually and in groups towards achieving goals (Fulmer, 2002; Ardichvili et al., 2003). Huang (2001) stated that leadership is a process of influencing and directing the behavior of others, both individuals and groups to achieve certain goals.

In line with the development of the business and management world, including leadership theories, family companies need to apply a more universal leadership concept. The concept of leadership in Quantum Leadership according to Roddy (2004) developed by The Jakarta Consulting Group is very relevant in family business. The three basic philosophies in quantum leadership according to Roddy (2004) are as follows: 1.) The Role of Leaders to View, Dream, and Implement; 2.) The Role of Leaders to Change; 3.) The Role of Leaders to Move.

**Organizational Culture**

According to Wayne and Ferris (1990), organizational culture is a system of shared meanings shared by members who differentiate the organization from other organizations. Furthermore, a shared system of meaning is formed by citizens who at the same time differentiate with other organizations. The shared meaning system is a set of key characters from organizational values. Whereas Davis (1968) suggested that organizational culture is defined as a set of values, assumptions, understandings, and norms shared by members of the organization and taught to new members. Organizational culture has been associated with employee job satisfaction, leadership behavior, and effectiveness in the organization. According to Claver (2009), organizational culture has a model that is internal and external oriented which is conflicting.

Akiniyi et al. (2018) stated that organizational culture is a system of values that are believed by all members of the organization and which are studied, applied and developed continuously, function as adhesive systems, and can be used as a reference for behaving within an organization to achieve goals predetermined company.

Understanding, that corporate culture is a value that determines the direction of behavior of members in the organization. If the value becomes a shared value, then a common perception of behavior is formed that is in accordance with the character of the organization. Thus, organizational culture guides and shapes employee attitudes and behavior.

Organizational culture is an invisible social force that can move people in an organization to carry out work activities (Arregle et al., 2012). Unconsciously, each person in an
organization learns about culture, which applies within the organization. Strong organizational culture supports corporate objectives, whereas weak or negative ones inhibit or conflict with company objectives. In a company whose organizational culture is strong, shared values are understood in depth, embraced and championed by most employees, according to Sharma (2001), an effective company is a company that cultivates the primary values needed for the interests of the company's operations. There are eight cultural values which he calls the principles, namely: 1.) Purpose; 2.) Excellence; 3.) Consensus; 4.) Unity; 5.) Performance; 6.) Empiricism; 7.) Intimacy; 8.) Integrity.

Founder’s Mentality

Most start-up companies are difficult to succeed, the biggest challenge they face for their further development is how to maintain growth in order to continue to generate profits. The challenges tend to become increasingly difficult as companies grow and can lead to economic diversification. So that to generate sales figures of $20,000,000 (20 million) seems easier than sales of $20,000,000,000 (20 billion). According to Gregorek (2008) in Maguta (2016), more than 90% of the real growth challenges are internal and become closely related to what they highlight as a central paradox, that growth decreases complexity, and complexity kills growth quietly.

There are three internal crises of growth that must be avoided by the company leaders, both companies that are still in their maize age and companies that have long been established, among others: 1.) The Overload Crisis; 2.) The Stall Out Crisis; 3.) The Free Fall Crisis (Malone, 1989; Handler, 1990; Collins and O’Regan, 2010). Companies that already have large profits and have sustainable growth in the market must always want to develop their business to become bigger and tend to be ambitious. This is one example of founder’s mentality where companies whose founders have mentality like this will continue to innovate and their employees can be directed to jointly achieve company goals (Bouguerra, Yezza, and Mzoughi, 2016).

Founder’s mentality is the key to competition for companies that are still young to be bigger. But actually it doesn't matter how big the company is, if they still have a founder's mentality, they will always be obsessed with being in the vanguard of their company, always having full responsibility for their employees, their products, their customers, and decisions about their business. Based on the research conducted by Saan et al. (2013), there are three main traits that are key to the founder's mentality, namely: 1.) An Insurgent Mission; 2.) Front-Line Obsession; 3.) Owner’s Mindset.

3. RESULT AND DISCUSSION

Method

The research approach chosen for this study is a qualitative approach with an interactive descriptive method, where this research is scientific research that aims to understand a phenomenon in a natural social context by prioritizing the process of in-depth communication between researchers and the phenomenon under study (Kim, 2010). The technique of determining the informants used in this study was using purposive sampling where subjects were determined based on objectives to improve the usefulness of the information obtained from small subjects.

Researchers choose subjects who have knowledge and information about the phenomena being examined, so that they can reveal a lot of information and the informant can be a little more, can be homogeneous in nature and characteristics can also change. The following are the specifications of the selected informants, namely: 1.) Company leaders; 2.) Corporate successor; 3.) Employees; 4.) Experts (expertise). Data collection methods used are in-depth interviews and documentation. The analytical test method used is an interactive method.
Genogram

According to Sharma, et. al. (2003), genogram is a visual representation tool of family membership and relationships that describes the main actors in the company and the relationships of each individual in a family member. As shown in the following image:

![Genogram of Founder Family](image)

**Figure 1. Genogram of Founder Family**
(Source: Primary Data, 2018)

<table>
<thead>
<tr>
<th>Information</th>
<th>Number</th>
<th>Age</th>
<th>Male</th>
<th>Female</th>
<th>Good Relationship and Communication</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st Generation</td>
<td>BH</td>
<td>59</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>AL</td>
<td>58</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2nd Generation</td>
<td>DK</td>
<td>37</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>EN</td>
<td>35</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SN</td>
<td>22</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The Role of Leadership

A leader must understand the internal and external realities of the organization, accept this situation, and make a dream "future building" based on this reality. According to Fulmer (2002), one of the principles of true leadership is when communication occurs smoothly between leaders and members. Communication within the organization is carried out with open dialogue. In organizations that thrive and are healthy, all human resources in it share information, ideas, and success. Things that need to be improved from the leadership in the DABN Corporation is the communication aspect between the leadership and employees. As happened in the DABN Corporation, leaders consider that they have done their best and provide flexibility to employees to innovate, but from employees they feel leadership is still centralized. By opening wider communication, misunderstandings can be minimized.

Small companies have several advantages on several sides. Employees at small companies can make decisions by having a mindset as an owner. (Ardichvili et al., 2003). However, the current conditions in the company show that the mindset has not yet been created. The company is considered to have an owner's mindset when the company is "empty", employees are not "empty" either. Employees can have the feeling of owning the company so they have the desire to grow the company. Whereas what happens in the company is that employees are still more often obeying what the leader says and have not
been able to innovate a lot and provide management input. While for technical matters, employees can determine the good thing to do but still have to go through the approval of the leadership.

**Organizational Culture**

Strong organizational culture supports corporate goals, whereas weak or negative ones hinder or conflict with company goals. In a company whose organizational culture is strong, shared values are understood in depth, adhered to and championed by most employees (Chrisman et al., 1998). Strong and positive culture is very influential on the behavior and effectiveness of company performance (Claver et al., 2009). In the DABN Corporation, there are operational standard procedures for companies that regulate a number of cultural issues carried out in the company, one of which is the uniform usage culture. However, on the implementation in the field, employees still rarely wear uniforms.

This is because the form of an office is like a house and there are rarely guests or people other than employees who come to the office, so the employees make up the situation and wear uniforms when there really are guests coming. Leaders say a lot about something, but do other things, do not match what they say with what they do. Even though it is a small matter, all members of the company, including leaders, should be able to do that which will be followed by big things that have a positive impact on the company (Collins and O'Regan, 2010). In addition, an organization needs to uphold excellence principle so that employees are always creative and innovative in carrying out their work. This is to support the creation of other principles that become the primary values in the company that must be cultivated into a corporate culture (Huang, 2001).

According to Akiniyi et al. (2018), there are leaders who do not see the need to coaching and train others. This slows down the growth of the organization and everyone in it. Therefore, it requires coaching and bringing in employees who are more expert in their fields so that the company has superior human resources and can advance the company. So far, there have been several trainings undertaken by employees, namely training in standard procedure operational formation and occupational health and safety training. But in reality, the application of this training is still lacking due to lack of supervision and evaluation from the leadership. In addition, there are still much training needed by employees, such as technical training such as basic sea survival, non-destructive test, etc.

**Family Succession**

According to Saan et al. (2013), one of the serious issues in family companies is "carbitan leadership", which means taking the leadership too quickly without being supported by sufficient field experience (flying hours). Therefore it is necessary to realize that regeneration requires time and must be planned. In this one year, the Chairman of the DABN Corporation has invited potential successors to get to know the situation that runs in the company. The aim is for prospective successors to have the ability to adapt and grow their participation in company activities.

However, from observations made by researchers, prospective successors are still not maximal in learning to prepare themselves as successors to the company's leadership leadership. According to the theory presented by Davis (1968), a successor must have the objective factors needed to run a business effectively. One of these factors is competence. Competence can be interpreted as the characteristics of knowledge, skills and personality needed to achieve high performance. According to Grezgorek (2008), several stages that need to be done to develop prospective successors are through training programs and transfer of knowledge from previous leaders as well as from expertise.
The facts in the field show that, of the 50 projects that have been carried out by the DABN Corporation, the new Director of Operational holds full control on the last 2 projects. During this time, the Director of Operational was still an "extension of the hand" (prospective successors) from the company's leadership. The Director of Operational in the DABN Corporation usually only takes care of operational matters in the field. But for technical problems, the Director of Operational is still not very mastered and only knows the "surface", so it needs to learn more deeply to master it. This is very necessary because as a prospective leader, he must be the person who understands the most about work, both in terms of technical and management; because all work decisions will be in his hands.

However, the Director of Operational has a dream for the future of the DABN Corporation, which is to make the company better known and better known, by equipping companies with certifications in various fields. Vision in a company is very important because it reflects that the company has a position and knows where the company will be directed. The sustainability of the family company depends on the readiness of the older generation to prepare their successors and future generations who are ready and willing to continue leadership in the family company. This will become a candidate for successor candidates to enter the company, although later after there is a succession, the company's vision will be its policy (Akiniyi et al., 2018).

**Succession Planning**

After a discussion like the one above, there are several things that need to be implemented to make this succession planning run smoothly. Following the discussion about how succession planning runs on the DABN Corporation:

**Pre-Succession**

At present, the pre-succession process in the DABN Corporation has been running for the past 1 year. The following are things that have been carried out in the pre-succession that occurred at the DABN Corporation.

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Role of Leadership</td>
<td>Successors have participated in activities at the company as operational directors. Introducing successors to the work environment and networking.</td>
</tr>
<tr>
<td>Organizational Culture</td>
<td>Gather evaluations about company culture, both for discipline, operational tools and technical standard procedures, and work environment.</td>
</tr>
</tbody>
</table>

(Source: Primary Data, 2018)

**Process of Succession**

The process of succession in the DABN Corporation is planned to take place when the current leadership reaches 60 years, or another year. Following is the planning of the succession process at the DABN Corporation.

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role of Leadership</td>
<td>Involve successors to technical work. Include successors in both management and technical.</td>
</tr>
</tbody>
</table>
Providing assistance to successors in order to increase successor awareness of the condition of the company

Evaluate standard procedures operational for company performance and discipline

Initiate the holding of a family meeting

Making family policies

(Source: Primary Data, 2018)

**Description:**

Evaluate the standard procedures operational for company performance and discipline. The purpose of the standard procedures operational is to create commitments about what is done by the work units of government agencies to realize good governance. Standard procedures operational are not only internal but also external, because besides being used to measure the performance of public organizations related to program accuracy and time, it is also used to assess the performance of public organizations in the eyes of the public (Arregle, Naldi, Nordqvist, and Hitt, 2012). To evaluate the company's rules of conduct it is very necessary, considering that there are still many regulations that are not carried out by company members, even by their own leaders.

**Family meeting:** this is very important to do regularly to discuss business continuity in the company. This is still not done in the families of the owners of the DABN Corporation, and is only talking between fathers and children, without involving all the families participating in the management.

**Making family policy** where policies are not only to guard decisions in business, but also to guard decisions about the relationship between business and family (Kim, 2010). These policies discuss the problems usually faced by family businesses and offer solutions that have been agreed before family conflict makes it impossible. Families who want to continue their business to the next generation will assume that this is important and useful for making movements, policy rules that must be obeyed, and carefully that will map the path to success for business and family.

**Post-Succession**

Post-succession in the DABN Corporation takes place when the successor has served as the head of the company, estimated to occur in 2019. The following is a post-succession planning at the DABN Corporation.

**Table 3. Post-Succession of The DABN Corporation**

<table>
<thead>
<tr>
<th>Component</th>
<th>Formation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Role of Leadership</td>
<td>Improve skills and performance of successors</td>
</tr>
<tr>
<td></td>
<td>Have a retirement plan for successors</td>
</tr>
<tr>
<td></td>
<td>Successor commitment in leading the company</td>
</tr>
<tr>
<td></td>
<td>There is a vision of the first generation and successor about the desired innovation for the future</td>
</tr>
<tr>
<td></td>
<td>Improve communication between the first generation with successors</td>
</tr>
<tr>
<td></td>
<td>There is still assistance from the first generation in order to oversee the successor in order to bring the company in the</td>
</tr>
</tbody>
</table>
Component | Information
---|---
Organizational Culture | - right direction and in accordance with the ideals of the company
- Division of job description that is clearer and in line with the field, but still helps each other (sticking to their respective limits)
- Create new standard procedure operational along with the development of the company, both for technical and administrative procedures
- Provide incentives and rewards that can increase employee loyalty and strengthen relationships between employees

(Source: Primary Data, 2018)

**Implication of Managerial: The Role of Leadership, Organizational Culture, and Succession**

Before starting this research, researchers see that the company leaders who are currently carrying out their role in having big dreams for the company and trying to make it happen by "moving it" by doing the right actions. As in the following table:

<table>
<thead>
<tr>
<th>Leadership fore Research Activity</th>
<th>Leadership later Research Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>The role of leader to see, dream and implement</td>
<td>The role of leader to see, dream and implement</td>
</tr>
<tr>
<td>The role of leader to move</td>
<td>The role of leader to move</td>
</tr>
<tr>
<td>The role of leader to change under’s Mentality</td>
<td></td>
</tr>
</tbody>
</table>

(Source: Primary Data, 2018)

In fact, there are still several roles that cannot be optimally implemented in the DABN Corporation. According to Bouguerra et al. (2016), the role of leaders are to change and guide their followers so that they are able to be leaders for themselves and good leaders will guide their men with respect, love and attention. However, from the interview results It can be concluded that the current leadership is still not maximally carrying out this role because communication is still often one-way from the leadership to the employee, which causes employees to sometimes feel confused and finally just obey orders, without understanding too deeply about the order.

Founder's mentality is the key to competition for companies that are still young to be bigger (Graves and Thomas, 2008). But actually it doesn't matter how big the company is, if they still have a founder's mentality, they will always be obsessed with being in the vanguard of their company, always having full responsibility for their employees, their products, their customers, and decisions about their business. Mental like this is still not seen by the DABN Corporation, especially in developing the owner's mindset for employees. The following are some of the things that are done by prospective successors of the DABN Corporation to achieve this: 1.) Improving communication with company members and more involving employee participation in job decision making; 2.) Always provide encouragement to employees so they are not shy in expressing their opinions and are not afraid to innovate. The effort has an impact on the organizational culture of The DABN Corporation so that the differences appear as the following table:
The eight principles of organizational culture within the company, before this research began there were still many that had not been achieved by the DABN Corporation. Even for existing principles, the application is still not maximal. The following are some of the things done by prospective DABN Corporation successors to achieve this: 1.) Motivating employees by starting to think of periodic rewarding or intensive; 2.) Coaching and comparative studies for employees to increase their knowledge and skills; 3.) Frequently conduct brainstorming agenda to improve the principle of excellence in company employees; 4.) Hold an event for internal companies in order to strengthen emotional relationships and increase familiarity between members of the company; 5.) Give examples in terms of discipline, for example: in the use of uniform, obedient administration, and so forth.

As explained earlier, the successor candidate actually has the capital to become a company leader. However, in reality, the learning process of prospective successors is still lacking and requires motivation to further increase their interest in learning. The active role of leadership and organizational culture has a significant impact on the succession of the next generation and can be seen in the following table:

**Table 6. Implication of Managerial on the Succession/Successor**

<table>
<thead>
<tr>
<th>Succession/Successor</th>
<th>Before Research Activity</th>
<th>After Research Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adaptability</td>
<td></td>
<td>Adaptability</td>
</tr>
<tr>
<td>Interest and Participation</td>
<td></td>
<td>Interest and Participation</td>
</tr>
<tr>
<td>Have a vision</td>
<td></td>
<td>Have a vision</td>
</tr>
<tr>
<td>Empathy</td>
<td></td>
<td>Empathy</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Competency</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Passion</td>
</tr>
</tbody>
</table>

(Source: Primary Data, 2018)

The following are done by prospective successors of the DABN Corporation to achieve this: 1.) More often go to expertise or people who are considered experts in a particular field that is in accordance with the company's vision and mission; 2.) Make use of time hanging out with employees while extracting technical work information from employees; 3.) Participate in various fields of work in the company (learning by doing).

4. **CONCLUSION AND RECOMMENDATION**

Based on the results of this study, there are some conclusions, including the following: 1.)
The leadership role has gone well, but there are still things that have not run optimally, namely in the field of communication, the desire of leaders to educate their employees, and improve founder's mentality in the company; 2.) Organizational culture that exists in the DABN Corporation has not run optimally because the operational standard procedures are still not running well and there is a lack of evaluation from the leadership. We suggest the coaching and rewarding activities have been maximally given to employees. A prospective successor actually has the capital to become a company leader. However, in reality, the learning process of prospective successors is still lacking and requires motivation to further increase their interest in learning.

REFERENCES


Kim, Y. (2010). Measuring the Value of Succession Planning and Management: A


The Effect of Visionary Leadership and Entrepreneurial Motivation toward Business Performance on Campus Enterpriser in the University of Jember

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Abstract

The purpose of this study was to examined the effect of visionary leadership and entrepreneurial motivation toward business performance in Campus Enterpriser at the University of Jember. This research used a quantitative approach with an explanatory method with the sampling technique used in the form of a total sampling of 120 Campus Enterprisers. The results of this study indicated that partially there was an influence of visionary leadership toward business performance and entrepreneurial motivation toward business performance. Simultaneously and significantly, visionary leadership and motivation had influence on the business performance of Campus Enterprisers at the University of Jember.

_**Keywords:** leadership, visionary leadership, enterpreneurial motivation, business performance, campus enterpriser_

1. INTRODUCTION

Indonesia is one of the most populous countries in the world. Indonesia ranks 4th most populous countries in the world after China, India and the United States. In addition to having abundant natural resources, Indonesia is also one of the countries with the most contributors to human resources in the world. Population growth in Indonesia from year to year is increasing. According to Singgih and Oetomo (2016), currently the population of Indonesia reaches 252 million people as of January 2016. Every year population growth in Indonesia rises by 1.3%, which means that every year there are an additional 3 million people.

If averaged, in Indonesia 1 woman can give birth to 2-3 children. Widodo predicts the next 15 years; Indonesia has a population with a very productive age. Along with the increase in population and the changing era in the Industrial 4.0 Revolution this raises new problems also in it. These problems include the depletion of employment, the number of job seekers,
the majority of whom are undergraduate graduates, while the existing jobs are running low which results in unemployment.

Unemployment is a major problem currently being faced by Indonesian society. Especially with the era of the ASEAN Economic Community (MEA), it increases the urgency of the Indonesian people, displaced by foreign workers who work in Indonesia. Unemployment occurs because the comparison of too many job seekers at all levels of education ranging from junior high to tertiary level is not comparable to the available jobs, it occurs not only in Indonesia, but also throughout the world and in various sectors including industry, mining, transportation and others (Priyanto, 2006).

Statistical data showed that the unemployment rate in Indonesia is still quite high, this can be proven by a survey conducted by the Central Bureau of Statistics in August 2015, namely the number of open unemployment rates of 7.56 million people which increased from the previous year of 320,000 from 7, 24 million or increased from August 2015 by 6.18% compared to February 2015 (5.81%) and in August 2014 (5.94%), while for the latest data obtained from the Satatistics Central Board in February 2016 shows unemployment of college graduates increased in percentage from 5.34% to 6.22% (Singgih and Oetomo, 2016). This still shows that the unemployment rate in Indonesia is still quite high. According to experts, a country can be declared a developed country, one of the indicators is that at least 2% of the population conducts entrepreneurship.

One way to reduce unemployment is entrepreneurship. According to Matsuno and Ozsomer (2012), entrepreneurship is an ability to manage something within oneself to be improved to be more optimal so that it can improve living standards in the future. According to Hua, Kabia, and Arkady (2015), entrepreneurship is an effort in creating business activities on the basis of the willingness and desires of oneself. Effendi, Hadiwidjojo, and Noermijati (2013) also added that entrepreneurs are people who have entrepreneurial traits such as being brave enough to take risks, never giving up and having a strong will to succeed in managing their business based on their own abilities and willingness.

The business owned by the Enterpriser Campus is also diverse, ranging from culinary business, contracting business, convection business, franchise business, frozen food business, boutique business, accessories business, home appliances business, and various other businesses. The business that is occupied depends on the interests and motivation that they have. Interest can be interpreted as feeling happy or interested in something. Then, according to Covin and Wales (2011) interest in entrepreneurship is an interest, desire and availability of someone through the ideas and innovations they have to work hard to meet their needs without fear of the risks that will occur, can accept challenges, be confident, creative and innovative, as well as having the ability to meet their needs. With strong student motivation from students, they can certainly increase the number of young entrepreneurs such as Campus Enterprisers in the Jember University.

Most of the Campus Enterprisers in the University of Jember have a strong motivation that drives their actions accompanied by their visionary leadership style. The visionary leadership spirit is also a driver of increasing motivation for someone in the business (Taylor, Cornelius, and Colvin, 2014). The success rate of the business that is undertaken also depends on how big the student's performance is. The pre-research observations that have been carried out are related to the visionary style of leadership towards business performance through entrepreneurial motivation on Campus Enterprisers in the University of Jember as measured by a number of students who have opened their own businesses.

Based on pre-observation data, there are only 120 students who have opened and run their own business, while 27 students have not started yet, and 12 students do not know how to start. The purpose of this study is to examine the influence of visionary leadership and entrepreneurial motivation toward business performance on Campus Enterprisers in the
University of Jember both separately and simultaneously. The benefits of this research are as a form of contribution to the development of human resource management science related to visionary leadership, business performance, and entrepreneurial motivation.

2. LITERATURE REVIEW

Visionary Leadership

Ansar (2017) explained that visionary leadership involves extraordinary ability, ability, expertise to offer success and glory in the future. A visionary leader is able to anticipate any event that might arise, manage the future and encourage others to do it in the right ways. That means, visionary leaders are able to see challenges and opportunities before they occur while then positioning the organization to achieve its best goals (Avery and Bergsteiner, 2011). Dhamika (2014) stated that leadership faces an era of rapid change or "accelerating" change. Therefore, time is an important factor for making a visionary leader. To deal with this rapid change well, leaders must have a set of basic competencies such as the ability to anticipate, speed, agility, and perception. According to Kantabutra and Avery (2011), visionary leadership is a leadership pattern that is intended to give meaning to the work and effort that needs to be carried out jointly by the members of the organization by giving direction and meaning to work, and efforts made based on clear vision.

Visionary leadership requires certain competencies. Visionary leaders must at least have 4 competencies as stated by Nwachukwu, Chladkova, Zufan, and Olatunji (2017), namely: 1.) A visionary leader must have the ability to communicate effectively with managers and other employees in the organization; 2.) A visionary leader must understand the outside environment and have the ability to react appropriately to all threats and opportunities; 3.) A visionary leader must play an important role in shaping and influencing organizational practices, procedures, products and services in line with preparing and guiding the organization's path to the future; 4.) A visionary leader must have or develop an imaginative form, based on the ability of data to access the future needs of consumers and technology including the ability to organize organizational resources to prepare themselves for the emergence of needs and change.

Whereas according to Raghuvanshi (2016) proposed 10 competencies that must be owned by a visionary leader, namely: 1.) Visualizing, visionary leaders have a clear picture of what they want to achieve and have a clear picture of when it will be achieved; 2.) Futuristic Thinking, visionary leaders not only think about where the business is at the moment, but rather think about where the desired position is in the future; 3.) Showing Foresight, visionary leaders are planners who not only consider what they want to do, but consider technology, procedures, organizations and other factors that might affect the plan; 4.) Proactive Planning, visionary leaders set specific goals and strategies to achieve these goals; 5.) Creative Thinking, in facing the challenges of visionary leaders trying to find alternative new solutions by paying attention to issues, opportunities, and problems; 6.) Taking Risks, visionary leaders dare to take risks and regard failure as an opportunity rather than a setback; 7.) Process Alignment, visionary leaders know how to connect themselves to the goals of the organization as a whole; 8.) Coalition Building, the ability to find opportunities to collaborate with various types of individuals, departments and groups; 9.) Continuous Learning, the ability to test any negative or positive interaction, so as to be able to learn the situation and be able to pursue opportunities to cooperate in taking part in projects that can expand knowledge, provide challenges to think and develop imagination; 10.) Embracing Change, the ability to understand change in an important part of growth and development.
**Business Performance**

Performance is a comparison of the results of work achieved by employees with predetermined standards (Hua, Kabia, and Arkady, 2015). According to Matsuno and Ozsomer (2012), the notion of performance is the willingness of a person or group of people to do an activity and perfect it according to responsibility with the results as expected. This is also stated by Avery and Bergsteiner (2011) performance is a comparison of the results of work achieved by employees with predetermined standards. Whereas according to Priyanto (2006) defined performance as work results achieved by individuals that are adjusted to the role or task of the individual in a company for a certain period of time, which is associated with a measure of value or a certain standard of the company where the individual works.

Business performance is a series of activities that start from performance planning, monitoring/reviewing performance, evaluating performance and following up in the form of rewards and punishments (Kantabutra & Avery, 2002). The performance of a business is everything that is desired by consumers in a product or service by maximizing the quality of the results that consumers will later receive (Effendi et al., 2013). Based on the above analysis, it can be concluded also that basically the performance of a business is very necessary and important in business competition. With the existence of good business performance offered it will certainly be a distinct advantage for a business to develop its business (Cheema et al., 2015).

**Entrepreneurial Motivation**

The interest in starting entrepreneurship in students is actually quite high, but the shadow of failure, not having enough capital and not having the time to focus on developing its business is a risk that prevents students from starting their own business. Vijaya and Kamalanabhan (2009) stated that the motivation of someone to become an entrepreneur is divided into four groups, namely: 1.) Interest in starting an entrepreneur in the near term; 2.) Interest in starting an entrepreneur in the next two years; 3.) Interest to start entrepreneurship for the long term; 4.) Do not have an interest in entrepreneurship. Interest basically cannot be forced on someone, because interest is a right for every human being.

Factors that influenced entrepreneurial motivation, according to Bolton and Lane (2012) include were personal, environment and sociological. According to Covin and Wales (2011) stated that motivation is a psychological process that is fundamental and can explain a person's behavior. Motivation is an encouragement from someone to do something, including being a young entrepreneur (Lee and Tsang, 2001). According to Aisyah et al. (2017), motivation is a physical and mental activity. Physical activity can be in the form of persistence in doing a business and other activities that others can observe. Mental activity can be cognitive actions in the form of planning a business, organizing, monitoring, decision making and problem solving. According to Lee and Tsang (2001), the factors that influence entrepreneurial motivation include: 1.) Self-confidence; 2.) Innovative; 3.) Having a leadership spirit; 4.) Effective and efficient; 5.) Future-oriented (visionary).

3. **RESULT AND DISCUSSION**

**Method**

This study uses a quantitative approach with explanatory methods. This study aims to examine a theory / hypothesis to strengthen or even reject theories / hypotheses from the results of existing research. The population of this study is Campus Enterprisers who have succeeded in developing a business of 120 people. The sampling technique used is total sampling. Variables in this study include: Visionary leadership (X₁), Entrepreneurial
motivation ($X_2$), Business performance ($Y$). The research hypotheses proposed include the following:
- $H_1$: There is an influence about visionary leadership ($X_1$) toward business performance ($Y$) on Campus Enterpriser in the University of Jember
- $H_2$: There is an influence about entrepreneurial motivation ($X_2$) toward business performance ($Z$) on Campus Enterpriser in the University of Jember
- $H_3$: There are influences between visionary leadership ($X_1$) and entrepreneurial motivation ($X_2$) toward business performance ($Z$) on Campus Enterpriser in the University of Jember simultaneously

![Figure 1: Hypothetical Model](Source: Primary Data, 2018)

Data collection techniques in this study used questionnaires and processed using statistical tests on SPSS 24 For Windows using descriptive analysis tests, validity and reliability tests, classic assumption tests, regression tests, coefficient of determination and hypothesis testing.

Validity and Reliability
Validity test is carried out on each question indicator that forms the research variable. To measure validity, Pearson correlation is used between indicator scores and total variable scores. If the Pearson correlation value ($r_{count}$) is greater than $r_{table}$ ($\alpha = 5\%$), then the indicator of the question can be said to be valid. Validity testing is done with the help of the SPSS 24 For Windows program. The following is the result of testing the validity of each indicator in the research questionnaire using data from 120 respondents ($r_{table} = 0.179$). The result is known that each question indicator produces Pearson correlation value ($r_{count}$) whose value is greater than $r_{table}$, thus it can be said that the indicator indicator in this questionnaire can be declared valid.

Reliability testing is done to determine the extent to which the questionnaire is reliable or reliable. To measure reliability, the cronbach's alpha value is used. The calculation results of the cronbach's alpha value are greater than 0.6 so that it can be concluded that the questionnaire in this study has fulfilled the reliability requirements of the questionnaire, or in other words can be said to be reliable.

Normality Data Test
The residual data normality test procedure was carried out by testing kolmogorov smirnov. If the significance value generated from the Kolmogorov Smirnov test $> 0.05$ ($\alpha = 5\%$), then the residual regression model is normally distributed. From the calculation results obtained the significance value of the Kolmogorov Smirnov residual test is as follows:
Table 1. Result of Normality Data Test

<table>
<thead>
<tr>
<th>Kolmogorov Smirnov-Z</th>
<th>Significance</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.656</td>
<td>0.518</td>
<td>Normal</td>
</tr>
</tbody>
</table>

(Source: Primary Data, 2018)

Based on table 1 above It is known that the Kolmogorov Smirnov residual test produces a significance value of 0.518 > 0.05, so it can be concluded that the residual regression model is normally distributed, thus the assumption of residual normality has been fulfilled. This situation can also be strengthened by using the Normal Probability Plot. If the points on the chart spread around the diagonal line, It is concluded that the assumption of normality is fulfilled. The following is presented by Normal Probability The regression plot in this study:

![Normal Probability Plot](source: Primary Data, 2018)

Figure 2: Normal Probability Plot

Based on figure 2 above It can be seen that the points on the graph spread around the diagonal line, so it can be concluded that the residual regression model has spread normally or in other words the assumption of normality has been fulfilled.

Multicollinearity Test

Multicollinearity test shows that there is a strong correlation between independent variables in the regression model. Detecting the presence or absence of multicollinearity is done by looking at the tolerance value and the Variance Inflation Factor (VIF) value. If the VIF value < 10 and tolerance value > 0.1 then the regression model is free from multicollinearity. Next is the VIF value generated by the regression model:

Table 2. Result of Multicollinearity Test

<table>
<thead>
<tr>
<th>Variable</th>
<th>Tolerance</th>
<th>VIF</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visionary leadership ($X_1$)</td>
<td>0.552</td>
<td>2.014</td>
<td>Non-Multicollinearity</td>
</tr>
<tr>
<td>Entrepreneurial motivation ($X_2$)</td>
<td>0.449</td>
<td>2.021</td>
<td>Non-Multicollinearity</td>
</tr>
</tbody>
</table>
Based on Table 2 above, it is known that all VIF values in the two independent variables in the regression model are less than 10 and tolerance value > 0.1, so it can be concluded that the regression model is free from multicollinearity so the assumption of non-multicollinearity has been fulfilled.

**Heteroscedasticity Test**

Heteroscedasticity test is used to test whether or not the variant between the residual observations with one another. If the residual variant is not homogeneous, heteroscedasticity occurs. A good regression model does not contain heteroscedasticity, in other words the residual variant must be homogeneous. Testing for the presence or absence of heteroscedasticity is done by using a scatterplot between the predicted value of the dependent variable (ZPRED) and the residual (SRESID). If the scatterplot produces points that do not form a particular pattern, it means there are not occur the heteroscedasticity.

![Figure 3: Scatter Plot of Heteroscedasticity Test](Source: Primary Data, 2018)

From Figure 3 above, it is known that the dots do not form a specific pattern, which is marked by points spread above and below the zero axis Y. The results show non-heteroscedasticity. In addition to using charts, heteroscedasticity testing is also done with spearman rank correlation. The following are the results of the Spearman rank correlation on heteroscedasticity model testing:

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient of Rank Spearman</th>
<th>Significance</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visionary leadership (X₁)</td>
<td>0.882</td>
<td>0.683</td>
<td>Non-Heteroscedasticity</td>
</tr>
<tr>
<td>Entrepreneural motivation (X₂)</td>
<td>0.427</td>
<td>0.719</td>
<td>Non-Heteroscedasticity</td>
</tr>
</tbody>
</table>

(Source: Primary Data, 2018)

Based on Table 3 above, it can be seen that the significance value of the Spearman rank correlation independent variables on the model is more than 0.05, so it is concluded that heteroscedasticity does not occur in the regression model, thus the assumption of non-heteroscedasticity has been fulfilled.

**Autocorrelation Test**

Autocorrelation shows in a linear regression model there is a confounding error in the time period with an error in the previous time period. A good regression model is free from autocorrelation. Detection of the presence or absence of autocorrelation can be done using the Durbin Watson test (DW-test). An observation is said that there is no autocorrelation if the
value of Durbin Watson is \( d_U < d_{ew} < 4-d_U \). Following is the Durbin Watson value generated from the regression model:

<table>
<thead>
<tr>
<th>Table 4. Result Value of Durbin-Watson Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>( d_U )</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>1.13</td>
</tr>
</tbody>
</table>

(Source: Primary Data, 2018)

Based on table 4 above, it is known that the Durbin-Watson (DW) regression model is in the interval between \( d_U \) and \( 4-d_U \). So that from these results indicate there is non-autocorrelation in the regression model, or the assumption of free autocorrelation in the regression model has fulfilled.

**Regression Test**

The following is explained the regression results of the influence of visionary leadership and entrepreneurial motivation toward business performance on Campus Enterprisers in the University of Jember. From the results of regression analysis the regression equation is obtained as follows:

\[
Y = 1.467 + 0.284 X_1 + 0.477 X_2
\]

The explanation of the regression equation above is:

- \( a = \text{constant} = 1.467 \)
- This means that if the independent variables \( X_1 \) and \( X_2 = 0 \), then the value of the dependent variable (\( Y \)) is 1.467. In other words, if the visionary leadership (\( X_1 \)) and architectural motivation (\( X_2 \)) do not have an effect toward business performance (\( Y \)) on Campus Enterpriser in the University of Jember, the it still has a value of 1,467.
- \( b_1 = \text{regression coefficient of visionary leadership (} X_1 \text{)} = 0.284 \)
  - This means that if \( X_1 \) changes one unit, then \( Y \) will change by 0.284 assuming the variable \( X_2 \) is fixed. A positive sign on the regression coefficient symbolizes a unidirectional relationship between \( X_1 \) and \( Y \), meaning that if the visionary leadership gets better, then the business performance on the Campus Enterpriser in the University of Jember will increase by 0.284.
  - \( b_2 = \text{regression coefficient of entrepreneurial motivation (} X_2 \text{)} = 0.477 \)
  - This means that if \( X_2 \) changes one unit, then \( Y \) will change by 0.477 assuming variable \( X_1 \) remains. A positive sign on the regression coefficient symbolizes a unidirectional relationship between \( X_2 \) and \( Y \), meaning that if the entrepreneurial motivation gets higher, then the business performance on Campus Enterpriser in the University of Jember will increase by 0.477.

**Coefficient of Determinant (\( R^2 \))**

Testing the influence of visionary leadership and infrastructure motivation toward business performance on Campus Enterprisers in the University of Jember produces \( R \) values (multiple correlation) and \( R^2 \) values (coefficient of multiple determination) as follows:

<table>
<thead>
<tr>
<th>Table 5. Result Value of ( R ) and ( R^2 )</th>
</tr>
</thead>
<tbody>
<tr>
<td>( R )</td>
</tr>
<tr>
<td>0.603</td>
</tr>
</tbody>
</table>

(Source: Primary Data, 2018)
Based on table 5 above, it is known that the R value obtained is 0.518, indicating that the visionary influence of leadership and entrepreneurial motivation toward business performance on Campus Enterprisers in the University of Jember is quite strong. The value of $R^2$ obtained is 0.399, meaning that the visionary leadership and entrepreneurial motivation provide changes to the business performance of Campus Enterprisers at the University of Jember at 39.9% and the remaining 61.1% influenced by other than factors/indicators of visionary leadership and entrepreneurial motivation.

**Hypothetical Test: F-Test and t-test**

To find out the influence simultaneously of independent variables on the dependent variable, the F test is used. With the provision that $F_{\text{count}} > F_{\text{table}}$ and significance value $<0.05$ ($\alpha = 5\%$), the independent variables have a significant effect on the dependent variable simultaneously. The results of the F-test of the influence of visionary leadership and entrepreneurial motivation toward business performance on Campus Enterpriser in the University of Jember, as follows:

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>$F_{\text{hitung}}$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>3.514</td>
<td>2</td>
<td>1.819</td>
<td>13.772</td>
<td>0.014</td>
</tr>
<tr>
<td>Residual</td>
<td>8.854</td>
<td>116</td>
<td>0.091</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>12.368</td>
<td>118</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(Source: Primary Data, 2018)

Based on table 6 above, the results of the F-test obtained $F_{\text{count}} = 13.772 > F_{\text{table}} 3.073$ ($df_1 = 2$, $df_2 = 116$, $\alpha = 0.05$) and significance value $= 0.014 < 0.05$, it is concluded that visionary leadership and motivation have a significant influence toward business performance on Campus Enterpriser in the University of Jember simultaneously. Based on these results, the $3^{rd}$ hypothesis of the study (H$_3$), which suspected that there is an influence of visionary leadership and entrepreneurial motivation toward business performance on Campus Enterpriser in the University of Jember simultaneously, could be proven to be true.

To find out the partial effect of the independent variable on the dependent variable, the t-test is used. With the provisions if $t_{\text{count}} > t_{\text{table}}$ and significance value $<0.05$ ($\alpha = 5\%$), then the independent variable has a significant effect on the dependent variable partially. The results of the t-test of the influence of visionary leadership and entrepreneurial motivation toward business performance on Campus Enterpriser in the University of Jember, as follows:

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>B</th>
<th>Beta</th>
<th>$t_{\text{count}}$</th>
<th>Sig.</th>
<th>Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visionary leadership (X$_1$)</td>
<td>0.284</td>
<td>0.281</td>
<td>2.426</td>
<td>0.029</td>
<td>Significant</td>
</tr>
<tr>
<td>Entrepreneurial motivation (X$_2$)</td>
<td>0.477</td>
<td>0.625</td>
<td>5.117</td>
<td>0.013</td>
<td>Significant</td>
</tr>
</tbody>
</table>

(Source: Primary Data, 2018)

From table 7 above, it can be seen, among others:

The results of the t-test about the influence of visionary leadership toward business performance, resulting in a $t_{\text{count}} = 2.426 > t_{\text{table}} 1.980$ ($df = 118$, $\alpha/2 = 0.025$) and a significance value $= 0.029 < 0.05$. Based on these results, it can be concluded that visionary leadership has a significant effect toward business performance on Campus Enterpriser in the
University of Jember. The regression coefficient of visionary leadership is 0.284 shows that visionary leadership has a positive effect toward business performance, this means that if the visionary leadership gets better, it will improve business performance. Based on these results, the 1st hypothesis of the study (H1) which suspected that there is an influence of visionary leadership toward business performance on Campus Enterpriser in the University of Jember significantly acceptable and proven true.

The result of the t-test about the influence of entrepreneurial motivation toward business performance, resulting in a $t_{count} = 5.117 > t_{table}$ 1.980 (df = 118, $\alpha/2 = 0.025$) and a significancy value = 0.013 < 0.05. Based on these results It can be concluded that entrepreneurial motivation has a significant effect toward business performance on Campus Enterpriser in the University of Jember. The regression coefficient of entrepreneurial motivation is 0.477 shows that entrepreneurial motivation has a positive effect on business performance, this means that if entrepreneurship motivation gets better, It will improve business performance. Based on these results, the 2nd hypothesis of the study (H2) which suspected that there is an influence of entrepreneurial motivation toward business performance on Campus Enterpriser in the University of Jember is supported.

4. CONCLUSION AND RECOMMENDATION

The results of the research on the visionary influence of leadership and the entrepreneurial motivation for business performance at the Campus Enterpriser at the University of Jember include the following conclusion and recommendation:

On the results of the t-test about the influence of visionary leadership toward business performance, resulting in a $t_{count} = 2.426$, significancy value = 0.029, the regression coefficient = 0.284. Based on these results, the 1st hypothesis of the study (H1) which is supported, and there is an influence of visionary leadership toward business performance on Campus Enterpriser in the University of Jember significantly acceptable and proven true.

The results of the t-test about the influence of entrepreneurial motivation toward business performance, resulting in a $t_{count} = 5.117$, significancy value = 0.013, regression coefficient = 0.477. Based on these results, the 2nd hypothesis of the study (H2) which suspected that there is an influence of entrepreneurial motivation toward business performance on Campus Enterpriser in the University of Jember is supported.

The F-test results obtained $F_{count} = 13.772 > F_{table}$ 3.073 (df1 = 2, df2 = 116, $\alpha = 0.05$) and significance value = 0.014 < 0.05, then It is concluded that visionary leadership and entrepreneurial motivation have a significant effect toward business performance on Campus Enterpriser in the University of Jember simultaneously. Based on these results, the 3rd hypothesis of the study (H3), which suspected that there is an influence of visionary leadership and entrepreneurial motivation toward business performance on Campus Enterpriser in the University of Jember, could be proven to be true.

The Campus Enterpriser is an association of students who share the same vision and mission in entrepreneurship. The use of Campus Enterprisers can be felt by the students who are members of It. They should able to be independent, establish networks, and exchange opinions for the progress of their own business program sustainly.

REFERENCES


How Do Family Businesses Create Happiness? A Conceptual Model for an Indonesian Context

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**Abstract**

Recent development in family business research has tipped toward a couple of important directions. First is the attention to how the business system may enhance the well-being of the family system. Second is the emphasis on how the cultural embeddedness of the family businesses serve as micro-foundations for the continuity (and change) of the organizational lives. Drawing from the literature in positive psychology, economics of happiness, and social entrepreneurship, this paper connects these two directions of research and offers a conceptual model for how Indonesian family businesses may create happiness. The paper reviews extant studies on Indonesian context and highlights several cultural practices which are attributed to reaching the balance between the sustainability of the family system and the sustainability of the business system. As a conclusion, this paper calls for future research agenda that attends to the multi-level complexity to understand family business well-being.

**Keywords:** cultural embeddedness, positive psychology, economics of happiness, social entrepreneurship, Indonesian family businesses

1. **INTRODUCTION**

According to the 2018 World Happiness Report, Indonesia is ranked 96th out of the 156 surveyed countries (Helliwell, Layard, & Sachs, 2018). Other neighbouring countries such as Singapore and Malaysia are positioned respectively at 34th and 35th; Thailand is 46th; and Vietnam, at 95th, precedes Indonesia only by a slight margin. These findings, particularly in the case of Indonesia, are in contrast to the 2018 Global Competitiveness Report which positions Indonesia in the 45th out of 140 economies (Schwab, 2018). This index measures, among others, “levers that drive productivity” (Schwab, 2018, p. v) such as “entrepreneurial culture, companies adopting disruptive ideas, multistakeholder collaboration, critical thinking, meritocracy, and social trust” (p. vii). Interestingly, psychologists found that well-being and happiness result in productivity (Johnson, Robertson, & Cooper, 2018; Oswald, Proto, & Sgroi, 2015) whilst economists have long assumed that money is instrumental to happiness (Anielski, 2007; Easterlin, 2004). However, it remains a puzzling question why a relatively
competitive—hence productive—economy such as Indonesia remains lagging in terms of happiness. Inspired by the literature in the economics of happiness, in this paper we take family business as a point of departure in addressing the issue of happiness and well-being. By acknowledging the heterogeneity of family businesses across countries, we take into account the cultural specificities of Indonesia and establish a preliminary framework to understand how family businesses may create happiness through their activities.

This paper addresses a gap in family business literature by contrasting two research streams in family business. First, family businesses are known for their distinctiveness in non-financial goals which benefit the sustainability of the business (Danes, Lee, Stafford, & Heck, 2008; DeTienne & Chirico, 2013). Moreover, recent research found that not only the well-being of the family systems help the sustainability of the business but the business systems may enhance the well-being of the family systems as well (Nordstrom & Jennings, 2018). Second, in order to understand the sustainability of family businesses, more attention is given to the cultural and social embeddedness (Bråten, 2013; Hamilton, 2013) and the micro-foundations of the family businesses (De Massis & Foss, 2018). These give rise to the importance of context and contextualizing. To the context of Indonesia, there are studies which examine Indonesian family businesses. However, little studies are found which address specifically the contextual specificities of Indonesia. To this end, we ask the question: how family businesses in Indonesia—with its cultural and social specificities—achieve happiness in the enactment of the family and the business lives?

To answer the question above, this paper reviews extant research which study Indonesian family businesses. The paper is organised into three sections. In the first section, we review and discuss key themes such as ‘family’, family business in Indonesia, happiness, and non-financial wealth. In the second section, we summarise these themes into a framework and discuss how they are interconnected. Finally, we conclude the paper by providing several research agenda to expand this study.

2. LITERATURE REVIEW

Families in Indonesia

The discussion on family business across different countries often jumps too quickly towards the business without giving much attention on how ‘family’ is defined in a particular context. As a result, ‘family’ tends to be taken as a self-evident fact and the meaningfulness of the term is lost. This can be problematic in the case of Indonesia with a population of 237,641,326 people (Badan Pusat Statistik, 2010) and 65,588,000 households (Badan Pusat Statistik, 2015). We overcome this limitation by outlining some key observations on the term ‘family’ in Indonesia in order to spell out its meaning.

Keluarga is an Indonesian term of family. To this term, Shiraishi (1997) is one of the most vivid scholars in expounding ethnographically how keluarga is historically constructed and is a container of subtle relationships, roles, and expectations in Indonesia. Ki Hadjar Dewantara, a national hero and one of the most prominent Indonesian philosophers, once reflects that the term keluarga is derived from the words kawula and warga. As quoted in McVey (1967, p. 136), Ki Hadjar Dewantara defines “Kawula [as] a ‘servant’, whose duty is to subordinate himself and devote all his strength to the one he views as his ‘Master’. Warga, on the other hand, means ‘member’, who bears responsibility and who has the authority to take part in management, and to guide and oversee performance.” Keluarga, therefore, can be understood as a system of authority, duty, and responsibility among its members.
From *keluarga* there is a concept called *kekeluargaan* which, as Shiraishi (1997, p. 81) points out, is “an abstract form of *keluarga* or family”. Along with this abstraction is a set of underlying values which are expected to present in family such as ‘sacrifices’, ‘duties’ and ‘responsibilities’. Through the term *kekeluargaan*, there is an expansion of what is consisted in a family. No longer family is related to blood ties. Instead, with *kekeluargaan*, family is more about the roles and duties that people play in their interactions with others. Anyone can be part of a family and people are expected to resolve conflicts through the principles of *kekeluargaan*. Although this paper does not address family in this larger term, it is important to acknowledge that family is a pervasive term in the daily lives of Indonesian society. Having discussed the meaning and scope of family in Indonesian context, we now move to discuss the studies that incorporate Indonesia as a context.

**Indonesia and the family businesses**

Researches on family businesses in Indonesia have explored several interesting themes and firms. For instance, Indonesia is argued to be related heavily with the Chinese family business (Weidenbaum, 1996). In a study on the *jumu* industry (Indonesian herbal medicine), many similarities are found between Indonesian and Chinese family businesses although a distinct Javanese characteristic is also found (Rademakers, 1998). Insightful in this study is the distinction between *pribumi*- (indigenous Indonesian such as the Javanese) owned and *peranakan*- (Indonesian-speaking Chinese of mixed parentage) owned *jumu* producing companies. Inter-firm behaviour in this industry is found to be based on the notion of ‘*bapakism*’ or the Javanese paternalistic ideals of “social unity that, in turn, form the basis of high levels of collectivism within micro-societies in Indonesia” (Rademakers, 1998, p. 1022).

A study of micro family firms in Java by Bråten (2013) is insightful in taking into account that family firms are embedded in their surrounding neighbourhood where social obligations (in cultural practices such as *arisan* or *rewang*) represent a major part of the daily routine and are often more important than ‘work’ itself. These obligations are costly, in time and financial terms, and these may affect the financial conditions of the affected family firms in return for a social ‘gain’ that, someday, one may help each other in case of misfortune. In addition, a study by Efferin and Hartono (2015) shed light into the management control system practices of a family business in Surabaya. By highlighting subtle cultural notions in Java such as “*rakun* (collective decision-making, unanimous decisions and co-operation) and *ewuh pake-wuh* (reluctance among non-family superiors to punish subordinates with ties to the family)” (Efferin & Hartono, 2015, p. 134), they found that leadership and management control system of family business are embedded in its wider societal culture.

Other studies examine the impact of family ownership on firm performance (Lukviarman, 2004; Singapurwoko, 2013); succession (Tirdasari & Dhewanto, 2012; Utami, Bernardus, & Shinta, 2017), demise of the business (Karsono & Suprapto, 2014), gender (Anggadwita, Ayuningtias, Alamanda, & Otapiani, 2017), and business elites (Johansson, 2014).

**Non-economic goals, well-being, and happiness in family business**

A stream of research in family business which correlates to happiness and well-being is socio-emotional wealth and its sibling term family-centred non-economic goals. Socio-emotional wealth refers to “non-financial aspects of the firm that meet the family’s affective needs” (Gomez-Mejia, Haynes, Núñez-Nickel, Jacobson, & Moyano-Fuentes, 2007, p. 106). Berrone, Cruz, and Gomez-Mejia (2010, p. 87) elaborate that “the value of SEW [socio-emotional wealth] to the family is more intrinsic, its preservation becomes an end in itself, and it is anchored at a deep psychological level among family owners whose identity is inextricably tied to the organization.” As such, socio-emotional wealth may is occasionally equated with a diverse range of value-related aspects held by the family such as family reputation,
wealth preservation, transgenerational sustainability, as well as community involvement (Chrisman, Chua, & Litz, 2004; Chua, Chrisman, & Sharma, 1999; Miller, Steier, & Le Breton Miller, 2003; Sharma & Manikutty, 2005). Socio-emotional wealth is also parallel to the concept of ‘family-centred non-economic goals’ (Chrisman, Chua, Pearson, & Barnett, 2010). The essence, however, is similar. Both encompasses the motivation to strive for, preserve, or enhance such non-economic goals (Jennings, Eddleston, Jennings, & Sarathy, 2015). In other words, socio-emotional wealth is appropriate to be seen as a framework that underlies family firms’ behaviour in decision making.

While the above stream of research suggest that families which seek to fulfil the socio-emotional wealth or family-centred non-economic goals will affect the sustainability of the business, a recent study by Nordstrom and Jennings (2018) found that the operations of family business may as well enhance the well-being of the owning families and their members. Taking the context of the multigenerational Hutterite colonies in Western Canada, one of the authors observed and were involved in the daily practices of the family business members such as:

butchering chickens, gardening, canning, washing dishes, collecting eggs, working in the greenhouse, and caring for the children and elders. She took part in morning and financial meetings, meals and their preparation, prayers, and various social events such as weddings. She drank many cups of coffee and ate many delicious pieces of pie. (Nordstrom & Jennings, 2018, pp. 321-322)

These practices are observed in situ and are found to be foundational to the synergy between business and familial well-being.

With respect to happiness in family business, important findings are provided in a classic article by Tagiuri and Davis (1992) and, more recently, a piece by Sund and Smyrnios (2005). Based on a study of 524 participants from family-owned businesses, Tagiuri and Davis (1992) explore the range of goals of family-owned and -managed businesses. The result is a set of goals of successful family businesses which include “have a company where employees can be happy and productive, a company whose image and commitment to excellence in its field makes its employees proud” (p. 55). Sund and Smyrnios (2005) takes a different approach in discussing happiness by taking an Aristotelian concept of happiness and its association with family stability. Among the key findings is the suggestion that “family instability is related predominantly to an unwillingness to share each other’s paths to happiness, which in part is associated with the self-interests of individuals” (p. 167).

In contrast to the previous sections on Indonesian context, there is a scarcity of research which explores how well-being and happiness are enacted and negotiated in family business settings in Indonesia. To move forward, we propose a research framework in the following section.

3. CONCEPTUAL FRAMEWORK: HAPPINESS AS LIVED EXPERIENCE

Based on the review of the literature above, we identify that there is a gap between research which take an Indonesian context and research on family business well-being which appreciate the contextuality of various cultures. This gap requires a framework to guide future research avenues and to invite family business scholars, particularly in Indonesia, to contribute to enrich the literature in family well-being and happiness. In Figure 1, we propose a conceptual model.
4. CONCLUDING REMARKS AND FUTURE RESEARCH AGENDA

In conclusion, family businesses in Indonesian context may construct happiness through their embeddedness in the culture and contribution to the society. In congruence with the literature in the economics of happiness, this embeddedness—which relates to the everyday practices—is enacted with the aim to preserve the continuity and well-being of the family.

To move forward, we propose three research agenda. First, noting the multiculturality of Indonesia, future studies may perform cross-cultural studies between various ethnics in Indonesia. Second, future studies may focus on a particular region/culture and perform an ethnographic research to explore the process through which family businesses enact and negotiate happiness in their day-to-day activities. Third, aspiring scholars may carry out a nation-wide survey in order to examine the level of happiness of business-owning families in Indonesia.

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A Conceptual Model on the Impact of Organizational Structure and IT Capabilities on Corporate Entrepreneurship in Relation to Business Model Innovation Adoption and Business Model Performance in the Hospitality Sector

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Abstract

Before digitization, people use a travel agent to book the hotel, but now the internet allowed people to seek information and do their own booking, and transform the hospitality industry. Many hotels respond to the emergence of this new business model (BM) by adding this new disruptive BM into their existing ones, but not all perform better after they adopt this new BM, that raises the question on how organizational structure and IT capabilities affect corporate entrepreneurship (CE) relation on business model innovation adoption (BMIA); and how this adoption impacts business model performance (BMP). This study develops a theoretical viewpoint. Focusing on the links among CE attributes, organization structure; IT capabilities, BMIA, and BMP in an aim to clarify the interrelatedness among these constructs. The proposed thesis states, prominent CE attributes affected by organizational structure and IT capabilities in CE unique contributions to BMIA, and impact of BMIA to BMP.

Keywords: digital disruption; corporate entrepreneurship attributes; organizational structure; IT capabilities; business model innovation adoption.

1. INTRODUCTION

Innovation in digital internet is now a popular issue. The internet enables businesses to improve the accuracy and efficiency of transaction processing and also offers interactive functions with their customers (Applegate et al. 2002). Internet innovation also opens a route to new ways of doing business (Fitzgerald, et.al 2013). Today business and society are being shaped by this technological advancement (Khaskeli, et al, 2017).

An economy based on digital internet technology is happening; Google and Temasek in the E-Conomy report of SEA 2018 expose the internet-based economy in Southeast Asia to
reach $72 billion in 2018 and estimated to reach $240 billion by 2025. In the Southeast Asia region, percentage growth Gross merchandise value compared to GDP more than doubled from 1.3% in 2015 to 2.8% in 2018.

Quoting Google and Temasek 2018 reports, there are four growing sectors of the internet economy, namely the e-commerce sector; online media; ride-hailing; and online travel. Currently, in Southeast Asia, online travel is the largest internet economy sector among the four sectors of the internet economy, namely $30 billion, with the proportion of online vacation rentals contributing $0.6 billion; online hotels are at $10.7 billion, and online flights are $18.4 billion. Indonesia itself has great potential. The internet user base in Indonesia is the largest in the Southeast Asia region (150 million internet users in 2018) and has the highest gross merchandise value of $27 billion. The projected value of digital economy business transactions is predicted to reach Rp 1.759 trillion in 2020 (OPUS 2019, Creative Economy Outlook 2019, Badan Ekonomi Kreatif). And specifically in the online travel sector, Indonesia has the largest market size in the Southeast Asia region with $8.6 billion in 2018 (SEA 2018, Google & Temasek e-Conomy Report).

For the hospitality industry, in particular, the internet has become the most important communication media, as well as a challenge for companies in the hospitality sector. In the past, consumers made hotel reservations by contacting travel agents by telephone or even visiting their hotels directly. But with the development of the internet, now consumers can directly compare prices and features simply by using online travel aggregator (OTA) websites/applications such as Tiket.com or Traveloka. In addition, the industry also faces challenges with the proliferation of websites/applications that offer private properties rental. With online vacation rental applications such as Airbnb, property owners can rent out their property, and for consumers, Airbnb offers a much cheaper lodging price option and more diverse lodging options. Even though there are still regulatory uncertainties in the OVR vacation Google and Temasek noted, transactions of $600 million occurred in this sector of the internet economy, and the transaction numbers have the potential to grow up to $2 billion by 2025. Technological innovations have streamlining market entry processes for suppliers, facilitating searchable lists for consumers, and keeping transaction costs low (Zervas, et al, 2017).

Inevitably, changes in digital internet technology are happening and seeing the economic potential that can be generated; each company wants the technology to be transformed into its business. Executives see the potential of digital internet technology to achieve transformation, but unfortunately few know how to achieve that goal (Fitzgerald et al. 2013). According to Bower and Christensen (1995), one of the most consistent patterns in the business world is the failure of leading company to continue to dominate the industry when there are changes in technology and markets.

One of these failures occurs because the incumbent firm is negligent due to overly focusing on the mainstream customer and ignoring technological changes that occur. As new technology continues to grow; the business environment changes, and customer preferences evolve, companies need to continuously adapt to the design of their business models (Zott & Amit, 2016). The fundamental challenge of the occurrence of disruptive technology lies not in the technologies itself, but rather the problem of business models because the economic value of a technology does not lie in the technology itself, but rather how it can be commercialized through a business model (Chesbrough, 2010). The incumbent firm needs to adapt continuously to the business model it has. Thus, innovation in the business model serves to mediate the relationship between technological innovation and company performance (Fuller and Haeflinger, 2013).

In the last 15 years of studies on business models (BM), and more recently, business model innovation (BMI), has become a concern in management research and also attracted
the attention of practitioners (Foss and Saebi, 2016). However, BM is still a "strange entity" and there is still no agreement on how to define BM (Spieth & Schneider, 2015). And currently much of the literature on BM only focuses on entrepreneurial firms and their creations in shaping new BM, but there is still little research that pays attention to incumbent firms that have established business models (Kim and Min, 2015; Foss and Saebi, 2016).

At the incumbent firm, this innovation is reflected in the existence of corporate entrepreneurship activities, which aim to maintain regeneration, organizational rejuvenation, strategy renewal, and organizational redefinition (Covin & Miles, 1999). Ozdemirci (2011) mentions corporate entrepreneurship refers to a process within the existing firm that is related to new business venturing, in which there are innovation activities and product development, services, technology, technical administration, strategy, and company posture. The study of BM itself relates to research on entrepreneurship because studies on entrepreneurship tend to examine new businesses or industries that are driven by innovation (George and Bock, 2011). Karimi (2016) shows that the attributes of corporate entrepreneurship (CE) have a unique contribution to the level of business model innovation adoption and the performance of business model innovation (BMI). In the relationship between CE and BMI, Karimi also added that the organization's resources and capabilities are benefits for companies to adopt the innovative business model. Companies that have small scale do have advantages in terms of opportunities and renewable innovation, but large companies have resources advantages over small companies in terms of adopting BMI.

However, although studies have investigated the effects of CE on the performance of business models, further studies are still needed to determine the conditions under which CE can influence company performance (Karimi & Walter, 2016). Ha and Kankanhali (2017) mention corporate entrepreneurship within the company is also determined by how much the level of IT implementation is carried out by the company. IT deployment is positively associated with entrepreneurial action in creating a new business, and IT capabilities contained within the company also positively influence corporate entrepreneurship within the company (Wang et al. 2015).

Furthermore, in relation to corporate entrepreneurship, Foss (2014) also shows that discovery opportunity generated from corporate entrepreneurship is different from the realization of opportunity itself. Opportunity realization requires the mobilization of complementary activities and assets, such as production, marketing, sales, and distribution (Teece, 1986). In this case, formalization has a central role in the organization, with formalization, procedures that are acceptable and unacceptable in relationships between functions within the organization can be clarified explicitly by clarifying the degree of freedom in the attributes of corporate entrepreneurship (Walsh & Dewar, 1987). Leih, Linden, and Teece (2015) also mentioned the need for an organizational structure where the value in the business model was created, delivered, and captured.

Foss argued that BMI should also be influenced by many other factors at various levels within the company, especially the values contained in the organization; organizational culture; and organizational design. Citing a study conducted by Foss (2016) on developing literacy regarding the factors that become moderating variables for the realization of BMI, the contribution of literacy is generally about the capability of the organization; leadership actions; and the learning process in realizing BMI, but other organizational variables are not included in literacy. In general, further research is needed to understand aspects of the influence of organizational structure and design on BMI (Foss, 2016).

Referring to the research conducted by Karimi and Walter (2016), there are four attributes of corporate entrepreneurship that stand out and influence the adoption of business model innovation in relation to the performance of business models, namely autonomy; innovativeness; risk-taking; and pro-activeness. Moreover, quoting Chen (2015), it was also
found out that corporate entrepreneurship was positively influenced by IT capabilities to further influence better performance in terms of product innovation. However, Foss (2016) also reminded that the adoption of innovation BM must also look at the context of the structure and design of the organization in it and whether the scale of the corporate organization also influences the adoption of business model innovation (Doz and Kosonen, 2010). Hence by looking at IT capabilities; organizational structure and scale of the organization, companies can develop the level attribute of optimal corporate entrepreneurship to adopt business model innovations with the aim of improving the performance of business models.

2. LITERATURE REVIEW

**Business Model**

Business models refer to how companies can generate income by clearly placing themselves in a value chain (Rappa, 2000). Unlike the strategy that talks about a vision or idea about how the company will go in the future, a business model can be understood as a link between future planning (strategy) and operative implementation (process management) (Wirtz, et al, 2016).

Amit and Zott (2001) describe business models as transaction content, structure, and governance designed to create value through the exploitation of business opportunities. Whereas Chesbrough and Rosenbloom (2002) provide a definition of a business model seen from its functions, namely: to articulate a value proposition; identify a market segment; determine the company's position in the value chain structure and determine the assets needed to support the company in its position; estimate the cost structure and profit potential; provide a description of the company's position including identification of potential complementary & competitors; and formulating competitive strategies.

The business model consists of four key elements, namely customer value proposition; profit formulas, resources, and processes, which when linked together can simultaneously create and deliver value (Johnson, Christensen, and Kagermann, 2008). While Teece (2010) defines BM as a design or architecture regarding the mechanism of value creation, delivery and capture mechanism of a company. In short, the business model is simplified and aggregated representation of the relevant activities of the company. The business model explains how information that can be marketed, products and/or services are generated through the company's value-added components (Wirtz, et al, 2016).

Judging from the definitions above, business models are related to value creation. Chesbrough and Rosenbloom (2002) interpret business models as a construct that mediates the process of value creation. Business models have a role in ensuring the core innovation of technology can be translated into value for consumers. In other words, the business model explains the mechanism for transforming ideas into revenue through affordable costs (Zubaedah & Fontana, 2012). The creation of its own value is one aspect that is much discussed from studies on business models (Zott, Amit, and Massa, 2011).

In the midst of changes in the business environment, companies in creating new products must provide more or different solutions from competitors' products, and also create products that can provide more value or benefits to consumers (Fontana, 2017), especially as the business environment is increasingly disrupted by the development of digitalization technology. business is mostly done through the internet and this is actually a new channel for creating wealth (Zott & Amit, 2001).

Value creation can be done by making changes to the business model. Referring to Hamel (2000), to be able to face the technological revolution, companies must develop their model
business to be able to carry out value creation and value capture in their value chains, which include suppliers, partners, distribution channels, and coalitions that are able to develop resources owned by the company.

**Business Model Innovation**

Amit and Zott (2001) emphasize Schumpeter's theory, that innovation is a source of value creation. Schumpeter also identifies that innovation (which leads to value creation) can come from a variety of sources, including the introduction of new products and new production methods; new market creation; discovery of new resources, and reorganization in the industry. Assessing that value creation can arise from existing innovations from various sources, Zott and Amit position the business model as a unitary construct of unit analysis that can be used to capture value creation from various sources. Zott and Amit (2011) assess business models have a major role to unlock the potential of new technology and translate it into a value for consumers (Zott & Amit, 2011).

The business model's own literacy mostly discusses the domain of innovation and technology management. There were 26% of research on innovation in studies of business models (Wirtz et al, 2015). Wirtz et al (2015) emphasized the importance of companies to always be innovative in the midst of increasing global competition and technological change, and as there are changes in the company's internal and external sides, the company's current business model must always be criticized and viewed from a dynamic perspective. There is always an awareness of the need for evolution or innovation in business models. Superior capacity to reinvent business models is considered increasingly a source of important competitive advantage in the midst of the turbulence of the business environment (Schneider and Spieth, 2013).

At present, there is high attention to business model innovation (BMI), however, as is the case with business models, the definition of BMI is still diverse and growing. The concept of business model innovation itself is different from the concept of business models, innovation in business models as if it is a source of new innovations that complement traditional subjects regarding organizational processes, products, and innovation (Foss, 2016).

Markides (2006) defines BMI as a business discovery model that is fundamentally different from existing business. There is also a definition of BMI as a new business model that is integrated within the framework of its current business model (BM) with the aim of generating income and profit by creating; communicate; and bring values to customers (Chesbrough and Rosenbloom, 2002; Zott, Massa, and Amit, 2011). Nicolai J. Foss (2016) defines BMI as a change that has novelty and is designed on the main elements in the company's business model or architecture related to these elements, BMI represents a new and more comprehensive form of innovation in organizations, and allows for the development of theory; operationalization; and testing.

However, even though it is considered a crucial organizational competence for companies in the face of uncertainty in the business environment, there is currently no accurate definition of BMI, besides that existing BMI literacy is increasingly widespread and confusing (Schneider and Spieth, 2013). Schneider and Spieth (2013) categorize existing studies into three research flows, namely:

**Prerequisites to do BMI**

The current of this study discusses BMI seen from the drivers needed to carry out BMI. Bjork J (2012); Eppler et al (2011) mention the need for idea generation as a crucial challenge faced by an incumbent firm. Whereas Chesbrough (2012) mentions the need for experimentation & effectuation. Others, Doz and Kosenen (2010) emphasize the need for leadership unity, besides that it requires the role of inter-organizational cognition at the
corporate level of BMI (Aspara et al, 2012). The Aspara argument is at the top management level, the consensus is very difficult to achieve, therefore the role of top management is needed to carry out the transformation process. Achtenhagen (2013) believes that crucial capabilities are needed to support the process of value creation, which includes orientation to experiments, balance in the use of resources; clear leadership; strong organizational culture; and commitment from all employees.

Foss (2016) argues that current literacy emphasizes the importance of organizational capabilities; leadership actions; and the learning process within the organization as a trigger for BMI. However, there are still gaps in the current research, specifically Foss said that the design structure of organizational structures in BMI is still poorly understood, the level of organizational design and control mechanisms must be changed to support the BMI and the degree to which a BMI requires a new organizational design, it is still one of the issues that require further research.

Elements and processes in BMI

Research that discusses the elements and processes in BMI shows BMI as a continuous reaction process that is carried out to deal with changes in the environment; as a process of evolution and learning; and as a process of trial and error (Schneider and Spieth, 2013). Regarding the elements in BMI as a process, there is no proper understanding of the elements of BMI, but Wirtz (2016) regulates material and immaterial resources which are often seen as important components in the literature on BMI.

Effects achieved through the presence of BMI

Schneider and Spieth (2013) state that literacy discussing the effects of BMI can be categorized into 3 categories: (1) the effect of BMI on industry and market structure; (2) the effect of BMI on the performance of individual companies; (3) the effect of BMI on organizational capabilities. The first category focuses on research that examines the effect of BMI on industry logic. The second category analyzes the impact of BMI on company performance. While the third category concerns the capability of the company, the third category generally focuses on the company's strategic flexibility, as shown by the research of Bock et al (2010) and Bock et al (2012) which examine the effect of BMI on corporate strategy flexibility.

In relation to the influence of BMI on company performance and company capability, there are indeed several studies that have linked BMI to company performance, for example in terms of corporate financial performance, Aspara et al (2010) identified the influence of BMI which correlated with higher financial performance. In addition to the influence on financial performance, Hall and Wagner (2012) also mention the influence of BMI on sustainable management. Other empirical studies regarding the relationship between business models and performance were carried out by Patzelt et al (2008) who introduced business models as moderating variables between the composition of top management teams and organizational performance.

However, Schneider and Spieth emphasize the need for a deeper and more reliable understanding. Foss and Saebi (2016) also see that there are still few studies that link BMI with performance. One reason for the low number of studies may lie in the complexity that connects BMI and performance (Foss & Saebi, 2016) and given the development of the BMI field itself, it is not realistic to expect BMI research empirically to explain all these complicated mechanisms.
Business Model Innovation Adoption & Business Model Performance

The definition of adoption refers to the decisions of individuals and organizations to utilize an innovation through an adoption process, where a decision is made to fully utilize innovation as the best available action (Frambach & Schillewaert, 2002). Regarding the disruption of innovation, it has provided affordability and convenience to many consumers across industries (Hwang and Christensen, 2008). Faced with technological disruption and changes in the business environment, it is important for the incumbent firm to adopt BMI, namely by developing and implementing a new business model that is appropriate to respond to the disruption of innovation (Karimi & Zhipping, 2016).

In their study, Karimi and Zhipping (2016) show that BMI adoption can be done by replacing obsolete business models with new business models, by offering products or services that were not there before. With reference to Zott and Amit (2010), who see business models from the perspective of activity systems within companies, business models are defined as a template about how companies do business; giving value to stakeholders and linking the factors and markets of the company's products. This perspective explains how activities are carried out; by whom; and how these activities are connected together with actors in the business model, it is concluded that the performance of the company's business model not only covers financial performance but also includes other social aspects in the business model.

Taking the example of companies such as Apple and IBM that have successfully changed their business models to be able to compete and benefit from existing disruptions, the adoption of BMI disruption by making unique pricing and good distribution strategies can generate attractive profits through the existence of a cost structure the new one; process; and new relationships with suppliers and partners. Therefore it can be assumed that the higher the level of disruption of BMI adoption positively affects the performance of business models.

Corporate Entrepreneurship

In the organizational context, corporate entrepreneurship is defined as a vision where organizations are broadly dependent on entrepreneurial activities with the aim of continuously carrying out organizational youth and the operational scope of the organization, through exploration and exploitation of entrepreneurial opportunities. (Wang, et al. 2015). Corporate entrepreneurship is also a process where companies seek ways to innovate, create new transformations and lines of business, by changing business domains or changing strategic processes with the aim of improving organizational performance (Simset, et al. 2009).

Referring to Covin and Miles (1999), CE activities usually aim to maintain regeneration, organizational rejuvenation, strategy renewal, and organizational redefinition. The similarity of all entrepreneurial organizations lies in the existence of innovation. And innovation requires the presence of entrepreneurial orientation and EO characteristics to be able to present corporate entrepreneurship within the organization. Kahrimi et.at (2016) conceptualizes four attributes used to measure the level of corporate entrepreneurship within the organization. The four attributes are:

- Autonomy. Autonomous attributes refer to the level of freedom of action and make decisions that are often needed for members of the organization to create novelty in the business concept (Lumpkin et.al, 2009).
- Risk-taking which is defined as decision making and action taking in conditions of uncertainty in the results of actions taken (Rauch, et.al, 2009).
- Pro-activeness which is an active opportunity seeking behavior by carrying out product development; services; and new capabilities to anticipate future demand (Lumpkin & Dess, 1996).
Innovativeness, defined as the tendency and desire to participate in creative behavior and conduct experiments on products or services, or process development through technology and R & D (Lumpkin & Dess, 2005).

McGrath (2010) also mentions that one of the antecedents of BM is discovery-driven experimentation, strategies that aim to find and plot BM must be significantly involved in experiments and learning, rather than analytic approaches. Most studies have investigated the direct effects of CE on business model performance, but further studies are needed to determine the conditions under which CE can influence the performance of the company's business model (Karimi & Walter, 2016).

Formalization

The formal organizational structure reflects the level of expertise and the degree of dissemination of expertise throughout the organization. Previous research has shown that organizational design with high levels of decentralization and autonomy characteristics are suitable for exploration activities (Foss, et.al, 2014). And there are also many studies that show formalization impedes innovation in organizations (Ohly et.al, 2006). Formalization is said to have contradictory implications by limiting the entrepreneurial ability possessed and limiting the experimentation of the company. But there are inconsistencies in empirical findings that show a negative relationship between the level of formalization and innovation. Damanpour (1991) found an insignificant association between innovation and formalization.

Decentralization does provide freedom and autonomy managers to recognize and realize the opportunities that exist, but the formalization allows for standardization and codification of action & processes. Regarding the characteristics of decentralization, Garret & Covin (2013) states that the separation of structures between a corporate parent and new internal ventures is not always a good idea. The argument is that the separation of structures can be a serious obstacle to knowledge flow between corporate parents and new ventures.

In relation to corporate entrepreneurship, Foss (2014) also shows that discovery opportunity generated from corporate entrepreneurship is different from the realization of opportunity itself. Opportunity realization requires the mobilization of complementary activities and assets, such as production, marketing, sales, and distribution (Teece, 1986). In this case, formalization has a central role in the organization, with formalization, procedures that are acceptable and unacceptable in relationships between functions within the organization can be clarified explicitly by clarifying the degree of freedom in the attributes of corporate entrepreneurship (Walsh & Dewar, 1987).

Foss (2001) considers formalization can provide a clear roadmap for organizational members regarding the tasks needed to be able to successfully realize the opportunity. Foss found that the ability of a company to be able to realize opportunities depends on several elements in the organization's design. In particular, the positive association between opportunity realization and decentralization was strengthened by the formalization carried out by the company. The formalized process can reduce resource requirements and accelerate opportunity realization by facilitating coordination between complementary assets, investments, and actions needed to change the discovered opportunity into a marketable product.

Company Size

The size of the company is the organizational factor that is the most concern in literacy regarding innovation (Zhu, et al. 2006). Company size represents several important aspects in an organization such as the availability of resources within the company; organizational structure; and flexibility in decision making, where these aspects are organizational factors that critically influence IT adoption (Rogers, 1995).
Some literacy shows that company size is significantly related to technology adoption (Fichman, 2000), because large-scale companies have flexibility in terms of resources, where resources are important for technology adoption. Teo et al (2009) found that the size of the company was positively associated with the adoption of technology-procurement. Pan and Zhang (2008) also found that organizational size is a positive determinant of company adoption in implementing resource planning systems for companies in the telecommunications industry. With the flexibility in resources, large companies are able to bear the risk of investment and tend to be easier to achieve economies of scale from technology adoption, therefore e-business implementation is more commonly embraced in organizations of large scale (Zhang, et al, 2003).

However, there are also studies that state that large scale companies can also lead to inertia on technology adoption, large companies tend to be less fast and flexible than companies with small scale (Zhu & Kraemer, 2005). Conversely, companies with small organizations need fewer coordination and communication channels, so that it can be easier to adopt new technologies.

**IT Capabilities**

Nowadays, more publications are highlighting the value of information technology (IT) in affecting business processes. Many studies have attempted to understand the role of IT in organizational performance, and more researchers are paying attention to the notion of IT capabilities, including their potential to transform IT resources into business value (Kim, et al, 2016). Doz and Kosonen (2010) also emphasize the need for strategic agility, including the ability to reallocate resources & increase capabilities to support new business models. These include IT’s roles to support the business model. But, there very little understanding as to what constitutes a firm’s IT capability and how it could be measured.

Chen et al (2015) conceptualized IT capabilities attributes into four dimensions, namely:

- IT infrastructure flexibility, refers to the extent to which a firm’s IT infrastructure is scalable, modular, compatible with legacy systems and able to address multiple business applications
- IT integration, refers to the extent to which a firm links its IT to those of business partners, helping the partners to exchange information, communicate, and establish collaborative relationships
- IT business alignment, refers to the extent to which IT and business operations share congruent goals and maintain a harmonious relationship
- IT management, refers to the firm’s ability to effectively implement IT-related activities such as IT project management, system development and IT evaluation and control

Related to corporate entrepreneurship, effective CE activities generally depend on strong IT capabilities (Chen, et al, 2015). Their study result suggests that encouraging and supporting CE activities is an important mechanism through which firms can leverage IT capabilities to enhance product innovation performance, through provide relevant information and build a supporting technological environment inside the firm; facilitate communication and interaction within firm; and increase speed and effectiveness to support transformation within firms.

3. **CONCEPTUAL FRAMEWORKS**

The focus of the study is to investigate on how organizational structure and IT capabilities affect corporate entrepreneurship relation on business model innovation adoption; and how this adoption impacts business model performance. Jahingir and Zhipping (2016) have
provided a new conceptual from the CE perspective, regarding CE attributes related to BMI adoption.

However, Foss (2014) shows that opportunity exploration is not the only thing, to transform opportunity exploration into opportunity realization company need to organize procedures that are acceptable and unacceptable in relationships between functions within the organization can be clarified explicitly by clarifying the degree of freedom in the attributes of corporate entrepreneurship, formalization has a central role in the organization.

Furthermore, in the digitization era, IT capabilities is becoming more important, IT capabilities are expected to form a firm-wide technological foundation that can facilitate flexible processes and operations and are necessary for launching and implementing new ventures, developing new products, and renewing business processes and business models (Chen, et al 2015).

Further, from a managerial perspective, entrepreneurs or technology managers need to learn how to adjust their CE activities in order to succeed in adopting disruptive BMI (Jahingir & Karimi). Through the description above, the conceptual model (Figure 1) is try to depict on how formalization and IT capabilities affect CE on it’s relation with disruptive BMI adoption in response to digital disruption and the impact of disruptive BMI adoption on business model performance.

![Conceptual Model](image)

**Figure 1:** Conceptual Model

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The Impact of Entrepreneurial Orientation and Market on SMEs Performance Orientation that Influenced by External Environment and Networking Capabilities.

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**Abstract**

Entrepreneurial and market orientation can positively affect the performance of SMEs (Small and Medium Enterprises), yet these two orientations are not enough to enable SMEs to perform well in a dynamic and uncertain business environment. SMEs in Indonesia are both facing challenges and opportunities from changes in the existing external environment. SMEs must have networking capacities to access external resources. The networks are expected to impact entrepreneurial orientation and market orientation to enable SMEs to perform better. This study aims to empirically examine the effect of entrepreneurial and market orientations on the performance of SMEs, influenced by external environment and networking capabilities. This study proposes a conceptual framework that integrates external environment, the network capabilities, entrepreneurial orientation, marketing orientation, and the performance of SMEs in an uncertain external environment.

**Keywords:** entrepreneurship, networking, entrepreneurial orientation, market orientation, external environment, performance, SMEs

1. **INTRODUCTION**

Strategic management literature generally argues that the selection of firm’s strategies including SME (Small Medium Enterprise) depends on how closely a firm is aligned with external environment changes and requires quick respond to enable them to survive and compete with others (Desarbo et al., 2005) as uncertainties in environment can be a challenge or an opportunity for SMEs (Adeola, 2016). To respond to the uncertainties in the external environment, SMEs will build various types of collaboration with other organizations. Van Hemert et al. (2013) explained that companies in the current global economy prefer their action based on collaboration and Walter et al. (2006) showed that companies choose networking with other partners as an effective strategy in reducing costs and sharing resources.
The research of Atuahene-Gima & Ko (2001), Mirzaei et al. (2016), and Octavia & Ali (2017) showed that there is a strong relationship between entrepreneurial orientation, market orientation and/or a combination of entrepreneurial and market orientation with firm growth and performance. Jaworski & Kohli (1993) suggested that market-oriented companies can satisfy customers and achieve optimal organizational performance by identifying and responding to customer needs and preferences. To improve market orientation, companies must concentrate on providing good quality services, engage in formal market planning and must have inter-functional coordination within a strong company because it can help companies focus more on decision making, organizational learning within the company and understanding change that occurs in the external environment (Chahal et al., 2016). In general, the results of research to examine the causal relationship between market orientation and organizational performance provide the conclusion that market orientation has an impact on organizational performance (Jaworski & Kohli, 1990). On the other hand, Shirokova et al. (2016) stated that the inconsistency of the influence of entrepreneurial orientation on company performance can be justified from the point of view of contingency theory and strategic fit concepts where companies have better performance when they can manage and match the environmental conditions where the company operates.

Jutla et al. (2002) said that SMEs can be considered as the backbone of economic growth in all countries because they are responsible for 80% of global economic growth (as cited in Pongwiritthon & Awirothananon, 2015), and SMEs play important roles in reducing poverty, creating employment, and contributing to economic growth especially those that are directly related to employment issues (Munoz et al., 2015). Yet, SMEs are more vulnerable compared to larger companies in an uncertain environment as they have limited resources and difficulties to raise fund. Scozzi et al. (2005) with reference to Buijs (1987), Freel (2000), and Rothwell (1994) highlighted that lack of financial resources, poor management and marketing skills, lack of skilled workers, weakness in business networks and in accessing external information, and difficulties in implementing government regulations are factors that limit the competitiveness of SMEs. In addition, despite its large role in the economy, SMEs in Indonesia also face problems such as low working capital, lack of access to resources, capabilities, supply chains, and lack of use of technology, unclear business prospects and unstable planning, vision and mission (Ratnawat et al., 2018) and limited access to markets and innovation which resulting in a smaller market demand (Ginting, 2014; Octavia & Ali, 2017).

Problems and research questions

Research problems that can be identified from explanation above are as follow: firstly, external environmental factors such as globalization, technological and scientific developments, economic growth and increase social welfare, changes in access to information, and the environment have changed competition’s landscape between companies or industries including SMEs. External environment also has long been regarded as one of the important contingencies and the existence of entrepreneurial orientation in SMEs show that companies try to exploit and explore it (Mirzaei et al., 2016). At the same time, entrepreneurs and SMEs also need market orientation to exploit challenges and opportunities that exist in external environment such as market dynamism and heterogenism where needs and preferences of the customers are changing. The dynamics and complexity of external business environment also affect the capabilities such as networking and also performance of the SMEs where this must be studied to learn and to recommend how SMEs adapt with external environment and to enrich strategic and entrepreneurship literatures (Arshad et al., 2014). Therefore, studies relating to the external environment, capabilities, orientations and performance of SMEs along
with the factors that influence the success and failure of SMEs are still relevant and important including in Indonesia.

Secondly, Bowen et al. (2009) as cited in Kimatu & Bichanga (2015) found that there is still limited research related to SMEs in developing countries. Apart from the contribution of SMEs in Indonesia, as a developing country, SMEs still face some problems. However, SMEs can use their networks to access available resources and opportunities in external environment to help them perform better. Networks also increase the impact of entrepreneurship and market orientation on the performance of companies in the developing country (Boso et al., 2013). In addition, the phenomenon of open strategies for collaboration and networking has been carried out in strategies of business and has an influence on entrepreneurial and market orientation. Therefore, research on relationship of networking and market orientation and entrepreneurial orientation to help SMEs to cope with their problems is relevant and important.

Thirdly, previous researches have largely examined marketing activities and the entrepreneurial process separately (Webb et al., 2011). Yet, Boso et al. (2013) with reference to Morgan et al. (2009) and Stam & Elfring (2008) mentioned that researches related to integrated marketing and entrepreneurship such as market orientation and entrepreneurial orientation and their impact to company performance are needed as both of them are internal capabilities of the firm, and the impact of these two orientations are still questionable. It is also still unclear whether investments in entrepreneurial and market orientation are appropriate for all type of businesses and institutional frameworks where their effectiveness is also still poorly understood (Boso et al., 2013). At the same time, according to Kraus et al. (2012), the result of previous studies shows inconsistency in influence of entrepreneurial orientation towards the performance of SMEs. In addition, previous studies also recommended conducting research related to market orientation because understanding of market orientation is still unclear (Chahal et al., 2016). Therefore, a study on integration of both market and entrepreneurial orientation and their impacts on performance of SME are still important. Moreover, research on the relationship and influence of the external environment, networking capabilities, entrepreneurial orientation and market orientation on the performance of SMEs, especially in the Indonesian context as developing country which is carried out comprehensively and integratively are still needed.

This study will comprehensively analyse the influence of the external environment, networking capabilities, entrepreneurial and market orientation with the performance of SMEs in Indonesia, especially in the city of Tangerang. The research focuses on the city of Tangerang given the external environment on the outskirts of the capital city of DKI Jakarta which is very dynamic, hostile, and heterogeneous. The key research question that will be answered by this study: Is there any impact of entrepreneurial orientation and market orientation that influenced by external environment and networking capabilities on the performance of SMEs? Therefore, this study generally aims to examine empirically the impact of entrepreneurial orientation and market orientation simultaneously that are influenced by the ability to manage networks and external environments on the performance of SMEs in the City of Tangerang in Indonesia.

2. LITERATUR REVIEW

External environment

Technological innovation, resources scarcity, rapid inflation, major changes in the business cycle and social values, and many other dynamic forces rapidly change the environment of various industries (Ward & Lewandowska, 2005) and they are the main drivers of a highly
competitive environment (Hitt, Ireland, & Hoskisson, 2009). Change in external environment is usually seen in terms of favorable and unfavorable situation because the external environment provides both opportunities and risks for the SMEs (Wiklund & Shepherd, 2003).

Miller & Friesen (1983) divided the external environment into three aspects, namely environment dynamism, environment hostility, and environment heterogeneity, while Gathungu, Aiko, and Machuki (2014) divided the external environment into the dynamics and complexity of the environment which has the potential to create environmental and market turbulence towards companies including SMEs. Neill & York (2012) divided the external environmental characteristics based on the community's perception on the market which consist of munificence, turbulence and complexity. Neill & York (2012) with reference to Castrogiovanni (1991) described munificence captures market capacity that supports sustainable growth, turbulence measures the level of market instability in the customer's environment, competitors, and technology (Jaworski & Kohli, 1993), while Neill & York (2012) with reference to Huber & Daft (1987) defined complexity is the level at which there are many diverse and interdependent elements in the environment.

In detail, environmental characteristics based on Miller & Friesen (1983) with similar definition from some other studies are explained as follows:

**Environment dynamism**

Environment dynamism is a situation where the product has a short life cycle, a high level of innovation, change of customer tastes, and actions from competitors are unpredictable (Kraus et al., 2012; Wiklund & Shepherd, 2005). Miller & Friesen (1983) as cited by Shirokova, Bogatyreva, and Beliaeva (2015) explained that the characteristics of a dynamic external environment reflect the degree of uncertainty and speed of change in an industry. Ward et al. (1995) as cited in Ginting (2005) stated that a dynamic environment is a condition of unpredictable environmental changes characterized by rapid change, discontinuity in terms of demand, competitors, technology and regulations such as inaccurate, unavailable and outdated information and uncertainty.

**Environment hostility**

Environment hostility refers to the extent to which a business environment create a threat to the survival of a company (Miller & Friesen, 1982) that includes challenges such as decreased of markets, barriers to access to necessary resources, scarcity of labour and material, restrictions by strict regulations, changing prices, products, technology and distribution competition in industry, and unfavourable demographic trends. In contrast to dynamism, hostility causes scarce resources, an increase of competition, smaller profit margins, and, generally reduces the manoeuvrability of the company, therefore, during the most threatening period; attention is needed more on resource conservation and strategy selection related to economic competitiveness (Miller & Friesen, 1983).

**Environment heterogeneity**

Environment heterogeneity describes the level of diversification of companies that offer different products and services to serve customer needs and behaviour (Miller & Friesen, 1982). Highly heterogeneous external environments have very significant differences in consumer preferences, competitor behaviour, and business model (Shirokova et al., 2015) which affect business operations and adoption by the company (Rosenbusch et al., 2013).

Mthanti (2012) stated that SMEs which compete in a dynamic environment must have the flexibility to adapt to the changing environments to ensure the survival of the organization (as cited in Gathungu et al., 2014). SME needs to react to dynamism, hostility and heterogeneity of the environment and selection of strategies must be appropriate and in harmony with po-
Potential opportunities and business risks that can be explored and exploited (Shirokova et al., 2016). Adaptability can be in the form of ability in innovation, ability to collaborate (networking) with other stakeholders, and knowledge management for effectiveness and efficiency to perform well (Shirokova et al., 2015).

**Networking capabilities**

In a competitive environment, small and large companies deal with the same situation, but the pressures and challenges exist are heavier for SMEs because they have limited resources. To cover up the shortcomings, anticipate pressure from rivals, and to obtain alternative resources, the strategy undertaken by SMEs is to access resources outside by collaborating or building networks outside the environment. Kale et al. (2000) explained that strategy, cost, and learning are the three main reasons for the motivation of companies to form networks.

Martins (2016) with reference to Aldrich & Zimmer (1986) and Gulati (1998) defined that entrepreneurs are inherent in social networks and exchange relationships with other individuals who play an important role in the entrepreneurial process and entrepreneurs often use personal and professional relationships to obtain relevant information and advice in solving problems which affect company performance and understand the behaviour of employers and companies. Chetty & Patterson (2002) suggested that research on business networks can be divided into two streams (as cited in Schweizer, 2013). The first stream highlighted that social networks have influences on business networks and the second stream explained business networks is related to resources-based view (Barney, 1991). To support the first stream, business networks connect companies with customers, distributors, suppliers, and competitors who do business with each other and based on mutual trust and the existence of shared interests (Schweizer, 2013). The second perspective defined that companies participate in network in order to exchange resources and to reduce the threat of other actors in the industry. Ahuja (2000) defined that this perspective is based on that lack of resources encouraging companies to form relationships with other companies and Chetty & Patterson (2002) highlighted that an important implication of resource-based theory is involvement in relationships or networks is voluntary and companies intentionally decide to participate with the aim of benefiting from transactions that exist in the network (as cited in Schweizer, 2013).

Several benefits of networking are to provide additional and complementary resources and to gain access to resources (Buctowar et al., 2015), to give access to information, resources, markets and technology, and to support companies to achieve strategic goals, such as sharing risk and outsourcing stages or processes from value chains, organizational functions, and corporate behaviour. Performance can be better understood by examining the network of relationships where the company is attached. Gulati et al. (2000) and Saleh & Nububisi (2006) (as cited in Milovanović et al., 2016) stated that through business networks, companies can predict, prevent, and absorb uncertainties of external environment that affect their operations better and can jointly access markets through established business networks.

The dimensions of network capabilities are developed by Walter et al. (2006) originating from Keller & Holland (1975) and Mohr & Spekman (1994) which consist of coordination and resource activities, relational skills, partner knowledge, and internal communication. Coordination activities and resources can exceed company boundaries that connect each company with other companies and different individuals into mutually supportive networks of interactions (Walter et al., 2006). Good relational skills are important for building trust and confidence in network partners so that they are willing to share important resources (Hitt et al., 2009; Walter et al., 2006). Marshall et al. (2003) argued that relational skills include aspects such as communication skills, problem-solving skills, conflict management skills, empathy, emotional stability, self-reflection, a sense of justice and cooperation (as cited in Bengesi &
Roux, 2014). Knowledge of partners organizes and structures information about partners where it helps to utilize potential resources and constraints that exist in each potential partner. High partner knowledge indicates that the company have a lot of relevant information about their main partners, which allows them to avoid unnecessary transaction costs and to increase venture effectiveness (Walter et al., 2006). Internal communication is an important part of collaborative competence (Kale et al., 2000) which includes sharing strategic information, resources and agreements with all employees in the company to improve detection of synergy between partners and focus their efforts in areas that are more profitable for their company.

**Entrepreneurial Orientation**

Entrepreneurial orientation is the extent to which company owners or managers are willing to take business risks, to support changes, to innovate and proactively pursue new opportunities (Covin & Slevin, 1989) while Lumpkin & Dess (1996) commented on the extent to which employees are involved in the use of entrepreneurial activities that are supported (or vice versa) by the culture and structure of the company. Lumpkin & Dess (1996) highlighted that entrepreneurial orientation is related to behaviour, managerial philosophy, the practice of entrepreneurial strategic decision making, and it directs companies to enter into new or established markets with new or existing goods or services (as cited in Kraus et al., 2012). Slater & Narver (1995) stated that as a resource, entrepreneurial orientation has emerged as an important resource that can be widely exploited in the corporate entrepreneurship (as cited in Martins & Rialp, 2013).

Entrepreneurial oriented companies exploit and explore opportunities that exist or are created to build competitive advantage, which leads to company performance (Schindehutte et al., 2008). Proactive SMEs can be a pioneer by anticipating and pursuing new opportunities, participating in new markets, and can lead to innovations directed at marketing activities or producing new products that enable companies to keep pace with market changes and both react to and proactively address changes (Webb et al., 2011).

There are two opinions about dimension of entrepreneurial orientation; the first is Miller & Friesen (1983), who suggested the three dimensions namely, innovation, risk-taking, and proactivity. The second is, Lumpkin & Dess (1996) who added other two dimensions which made the five of dimensions of entrepreneurial orientation that consisted of innovation, risk-taking, proactive, autonomy, and competitive aggressiveness, yet Lumpkin & Dess also mentioned that the use of these five dimensions depends on the context and environment of the company. The dimensions used by Miller & Friesen (1983) consist of three dimensions with brief explanations as follows:

Uzkurt et al. (2012) defined that innovativeness has become a key component for business survival and competition in uncertain markets today and reflects the tendency of companies to engage in and support new ideas, novelty, experiments, and creative processes that can produce new products, services, or technological processes (as cited in Abdallah & Persson, 2014). The innovation can be product innovation, a process of opportunity for companies to gain new opportunities, and production methods and manufacturing processes (Lumpkin & Dess, 1996).

Proactively involves taking refers to processes aimed at anticipating problems and needs and following up on future needs by looking for new opportunities that may or may not be related to the current operating line, the introduction of new products and brands in front of the competition, which can strategically eliminate existing operations maturing or declining (Lumpkin & Dess, 1996).

Risk-taking, Miller & Friesen (1978) stated that risk-taking refers to the extent to which managers are willing to make commitments to large resources and risk the opportunities that exist and the potential for failure or involvement in strategies (as cited in Keh et al., 2007).
Market Orientation

Zhou et al. (2009) stated that the concept of market orientation began to be developed by Narver & Slater (1990) and Jaworski & Kohli (1990) in the early 1990s. Buctowar et al. (2015) with reference to Kohli & Jaworski (1990) and Narver & Slater (1990) defined that market orientation is the discovery and anticipation of customer needs and desires and coordinating cross-departmental organizational functions that leads to improved business performance, increasing employee commitment and team spirit. Kohli & Jaworski (1990) defined market orientation as a specific group of organizational behaviour or often referred to as behavioural approach, while Narver & Slater (1990) defined market orientation with organizational culture approaches or which is often referred to as a cultural approach. Ward & Lewandowska (2005) mentioned that the approach taken by Jaworski & Kohli (1990) emphasized further environmental scanning, while Narver & Slater (1990) included measures of competitor orientation.

Narver & Slater (1990) represented a cultural perspective by defining market orientation as the most effective organizational culture which creates the behavioural product innovations that focus on understanding and articulating customer needs which later leads to sustainable corporate performance. Narver & Slater (1990) added that the desire to create superior value for customers resulted in three organizational behaviours, namely understanding customer needs which is defined as sufficient understanding of target buyers to be able to create superior value for them continuously, understanding how competitors respond to the same customer needs by understanding short-term strengths and weaknesses and long-term capabilities and strategies of competitors, and functional coordination to utilize company resources in creating superior value for target customers.

On the other hand, Jaworski & Kohli (1990) with a behavioural approach suggested that market orientation becomes a unifying individual effort with departments within the organization so that it can lead to superior performance. According to this understanding, market orientation refers to generating market intelligence that is related to current and future needs that spread out within the organization and the organization's response to those needs and Jaworski & Kohli (1990) highlighted that market intelligence is much broader concept than customer focus (as cited in Verhees & Meulenberg, 2004).

Market orientation enables SMEs to understand markets and competitors and manifest in various mechanisms and activities at all levels to support the understanding of customers. Market orientation also produces intelligence about competitors that provide valuable information that enables SMEs to differentiate their products in a better way (Kohli & Jaworski 1990) and Day & Wensley (1988) mentioned that market orientation provides opportunities for SMEs to create more value for the market compared to competitors (as cited in Webb et al., 2011). According to Verhees & Meulenberg (2004) and Zhou et al. (2009), in general, the market orientation dimension can be referred to Kohli & Jaworski (1990) and Narver & Slatter (1990), where Narver & Slatter (1990) used three components of behaviour that are equally important, namely: customer orientation, competitor orientation, and coordination between functions.

Firm’s Performance

Rauch et al. (2009) explained the performance of SMEs can be measured as one or a combination of financial perceptions, non-financial perceptions and existing records or reports (as cited in Kraus et al., 2012). Perceived financial and non-financial performance is very helpful because SMEs may not have documents or financial statements when they do business or owners may not be interested in sharing documents. Some studies that use perceptions to measure company performance can be seen as follow:
Swierczek & Ha (2003) used high income, innovative leadership, creating jobs, business stability, high-profit rates, and contributions to society and business growth. Lakhal (2009) used market share, market share growth, sales growth, return on investment, and return on investment growth, sales profit margin, and overall competitive position. Kraus et al. (2012) used the level of sales growth, employee growth, gross margin, profitability and cash flow.

Research model and hypotheses

The researcher develops a research model from literature review that describes the relationships among variables within research. By using the research model, researcher then develops hypotheses on relationship among variables. The research model proposed in this study is described below.

![Proposed model]

Hypothesis 1: The external environment has an influence on network capabilities.

Entrepreneurial orientation is needed in a competitive, dynamic and emerging environment and has new opportunities that create high risk and high returns for entrepreneurs (Shirokova et al., 2016). Shirokova et al. (2015) stated that flexibility and adaptability to heterogeneous environments will help SMEs to have a better idea about customer needs and ultimately improve company performance. Firms that invest in entrepreneurial orientation tend
to uphold and expand performance under dynamic environmental conditions and high market turbulence because these firms tend to maintain the ability to react to constant changes in the environment by exploring and exploiting new opportunities (Kraus et al., 2012).

Shirokova et al. (2016) with reference to Aaker & Day (1986) and Song & Chen (2014) stated that the company needs to become entrepreneurial when high growth market is driven by increasing customer demand that already exists or product adoption by new customers as consumers are willing and able to buy more goods and services. On the other hand, an environment with low market growth or a declining market makes competing companies more aggressive to look for new business opportunities. The firms must be more innovative to differentiate their products from competitors and attract more customers by offering new products or services and taking advantage of the ability to find and exploit new market opportunities that improve business performance.

Hypothesis 2: The external environment has an influence on entrepreneurial orientation.

The focus of market orientation is the collection and analysis of information and trends that occur in the external environment by scanning the environment (Didonet 2012). Market orientation is the ability to connect firms with their external environment (Schindehutte et al., 2008) and a firm that face a high uncertainty environment will tend to be more market-oriented (Lonial & Raju, 2001). Another study conducted by Cervera et al. (2001) showed that perceived environmental turbulence created by environment dynamics positively affects all dimensions of market orientation. This enables companies to compete by anticipating market requirements in front of competitors and creating sustainable relationships with customers, channel members and suppliers. Bonoma (1986) suggested that when the external environment becomes more dynamic and complex, the boundaries of marketing functions will be more flexible and will be driven by the available opportunities (as cited in Morris et al., 2015). When the environment is characterized by stronger interdependence between companies, marketing must focus more on anticipating and responding to the movements of competitors. However, if the environment is volatile, companies must be responsible for introducing a greater level of entrepreneurship to all aspects of marketing efforts.

Didonet (2012) stated that aspects of turbulence in the external environment specifically turbulence related to technology and opportunities for competitive advantage are related to higher levels of market orientation. Morris et al. (2015) added that the existence of turbulence raises fears, uncertainties, and doubts between sellers and buyers, but also causes companies to make decisions faster and take opportunities that exist in the market according to the wishes of customers.

Hypothesis 3: External Environment has an influence on market orientation.

Veciana (2007) stated that network theory explains entrepreneurial functions developed in networks of social relations (as cited in Thapa, 2015). While Aldrich & Zimmer (1986) added that networks play important roles in the process of entrepreneurship (as cited in Martins, 2016). Moreover, Gaudici (2013) said that many new and good ideas are created in heterogeneous corporate networks and thus increasing the entrepreneurial opportunities of the company (as cited in Gathungu et al., 2014).

Ripollés & Blesa (2005) stated that to encourage entrepreneurial orientation, entrepreneurs need to identify new opportunities, facilitate innovative and proactive performance, and a moderate risk-taking approach, where networks can be used to obtain these resources (as cited in Martins, 2016). For example, Voola & O’Cass (2010) with reference to Cassiman & Veuglers (2002), Hewitt-Dundas (2006), and Ramachandran & Ramnarayan (1993) stated
that even highly innovative companies tend to network to overcome resource constraints, accelerating activities innovation, providing access to complementary assets and resources and for sharing costs. Ripollés & Blesa (2005) also explained cohesive private networks have a positive effect on entrepreneurial orientation and enable companies to be more innovative, risks-taker and proactive, and thus describe the entrepreneurial orientation. Wiklund & Shepherd (2005) found that inter-company networks positively influence entrepreneurial orientation.

**Hypothesis 4:** A Network capability has an influence on entrepreneurial orientation.

Network capability enables firms to build strong relationships along the supply chain, where through upstream and downstream connections, SMEs can obtain new resources, reduce transaction costs, have access to information about consumers, be guaranteed about the quality and safety of raw materials, and ultimately improve marketing orientation of these SMEs. Carraresi et al. (2012) with reference to Cao & Zhang (2011) and Sheu et al. (2006) explained that supply chain agents can act together to focus on shared goals, which should be more easily to be achieved than by working alone Companies learn a lot about networking in new markets, building strategic positions and trust with companies in the network and, also the possibility of creating new knowledge about business opportunities through interaction with companies in the network (Swierczek & Ha, 2003).

**Hypothesis 5:** Network capability has an influence on market orientation.

Rauch et al. (2009) stated that several previous studies have proven that companies who adopt a strong entrepreneurial orientation can have better performance, and Shirokova et al. (2015) stated that companies have better performance is due to entrepreneurial behaviour which helping them to deal with external threat and risks more effectively. Kraus et al. (2012) with reference to Wiklund (1999) defined that a strong entrepreneurial orientation is closely related to profit as the first driver and the tendency to take advantage of opportunities that arise, which in turn has a positive influence on performance.

Rauch et al. (2009) based on previous studies by Madsen (2007) and Aloulou & Fayolle (2005) also defined that entrepreneurial orientation is a special resource, an organizational capabilities that enable companies to develop competitive advantage and improve performance. Thus, the existence of entrepreneurial orientation and its characters (proactive, innovative, and desire to take inherent risks) make the entrepreneurial orientation have an influence on performance.

**Hypothesis 6:** Entrepreneurial orientation has an influence on performance of SMEs.

Verhees & Meulenberg (2004) with reference to Deshpandé (1999), Jaworski & Kohli (1993), Narver & Slater (1990), and Pelham (2000) noted that market orientation has a positive influence on company performance. Voola & O’Cass (2010) added that although there was a debate about the direct effects of market orientation on company performance, their researches agreed with previous studies, which stated that there is a broad consensus regarding the positive relationship between market orientation and company performance. The findings of Jaworski & Kohli (1993) showed that markets are the attractiveness of a business and an important determinant of company performance regardless of the intensity of market competition turmoil from the environment so managers must strive to improve market orientation from their efforts to achieve higher performance. Market orientation is proposed to improve company performance because it seeks to track and respond and work in customer prefer-
ences and needs at a higher level. Market orientation is usually facilitated by top managers through constant reminders to employees that it is very important for them to be sensitive and responsive to market developments. Market orientation also seems to require a certain level of risk taking and the willingness to accept product and service failures as a normal part of business life.

Market orientation is an internal resource to explore and understand about the need of customer and strategy of competitor and put it to marketing strategy and action. Marketing ability is one of the fundamental elements to achieve good performance because it has a better position in meeting consumer preferences (Gellynck et al., 2012). Didonet (2012) mentioned that market orientation facilitates the importance of flexible planning that helps to improve their performance in a condition of uncertainty.

**Hypothesis 6:** Market orientation has an influence on the performance of SMEs.

### 3. RESEARCH METHODS

The study will use causal statistic methods where the information will be received from direct survey to unit of analysis. The data are primary obtained through deployment of questionnaires. Data collection will use face to face and on-line survey (if possible) by using software called KoBo Toolbox (http://www.kobotoolbox.org) and the data will be exported to Microsoft Excel, SPSS, and SmartPLS 3.0 software. SmartPLS 3.0 will be used for Structural Equation Modeling analysis. Unit analysis or target population for the study is the owner of ornamental plant business in Graha Raya Residential, South Tangerang Municipality, Indonesia. Base on consultation with the manager of Graha Raya Residential, it is estimated that approximately 300 registered SMEs run ornamental plant business in target location. Sampling methods for the study will refer to Issaac dan Michael formulation Sugiyono (2015), with approximately 115 people will be used as sample. Referring to Hussein (2015), number of samples of object for PLS (Partially Least Square)-regression method is between 30 to 100 samples. Therefore, with 115 respondents as sample, it is more than enough to do analysis using PLS-regression.

### 4. DISCUSSION

External environment provides both threat and opportunities to SMEs, that can be utilized by SMEs in order to improve their performance by using individual and firm’s networking. Networking that embedded in the personal and business ties can be used to assess resources that are available in external environment and that will affect the market and entrepreneurial orientation. While market orientation has advantages to give superior value to the customer as it enables interaction between the firm with customer and competitors, entrepreneurial orientation shows inconsistent relationship with performance. Yet, entrepreneurial orientation is also needed by SMEs to scan risks, available opportunities and resources in external environment.

This study will analyse external and internal factors that influence performance of SMEs and will analyse those factors simultaneously and integratively. External environment as a representative of external factors of SMEs and networking capability, entrepreneurial orientation, and market orientation, and linked with the SMEs performance make this study as a comprehensive one.
REFERENCES


Investigating the Role of Perceived Organizational Support on Prosocial Voice Behavior and Upward Safety Communication in Paternalistic Leadership Environment

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**Abstract**

Safety performance can be increased if management understands the real situation in operation area. Exposure on operational area make cabin crew has valuable insight to enhance safety management system, policy and mitigation. Therefore, management must able to encourage cabin crew to communicate their safety related information. It is also critical for management to find factors to enhance cabin crew prosocial voice behavior, since it relates to express valuable idea benefiting organization. This research conducted to find influence of Benevolent and Morality leadership on Upward Safety Communication and Prosocial Voice Behavior in Indonesian cabin crew. This research also tries to investigate the role of Perceive Organizational Support (POS) in relationship between Benevolent and Morality leadership with Upward Safety Communication and Prosocial Voice Behavior. The results show Benevolent Leadership has bigger influence compared to Morality leadership on Safety Communication and Prosocial Voice Behavior; POS can be regarded as mediation in those relationships.

**Keywords:** benevolent leadership, morality leadership, upward safety communication, prosocial voice, perceived organizational support

1. **INTRODUCTION**

Airline industry shows that it is one of growing industry. Many reports forecast the increasing airline industry, in term of frequency and volume, for the next decade. International Air Transport Association (IATA) predicts the growth of airline industry is mainly contributed by Asia-Pacific country such as China and Indonesia. Along with growth in airline industry, safety aspect plays major concern in airline industry. As one of the most regulated industry, every party in airline industry always tries to formulate the best practice to
mitigate risk of accident and incident. Based on measurement from 2013 up to 2017, IATA proposed several countermeasure subjects to prevent accident and incident. The top two of countermeasure subject in the list are related to encourage the voluntary reporting system and increasing safety hazard identifying process. Cabin crew plays important role in Airline Company. The huge exposure on operational area make cabin crew has many valuable insights that can be used by management to increase company performance in safety aspect. This can be done if only cabin crew has communication process to embrace their insight to the cabin crew management for further analysis and implementation. Airline management expects high and flawless communication between cabin crew to create strong process in order to increase good safety level in organizational level. To achieve this, it is important for management to increase cabin crew motivation to report their findings, feedback and insights. Embracing idea or insight from cabin crew to the cabin crew management is related to voice behavior. Voice behavior is defined as non-required behavior that emphasizes expression of constructive challenges with intent to improve rather than merely criticize (Van Dyne and LePine, 1998). Research finds the positive relationship between voice behavior and performance of the group (Mackenzie, Podsakof, Podsakof, 2011). In the intention to study more about voice behavior, Dyne, Ang & Botero (2003) propose three types of voice behavior which are Acquiescent Voice, Defensive Voice, and ProSocial Voice. From the three types of voice, Dyne, Ang & Botero (2003) argue that ProSocial Voice give benefit to organization because it express ideas and information that based on cooperative ideas and focus on benefit other and organization.

Another variable needed to be put in concern to increase process of embracing idea or insight from cabin crew to management is Upward Safety Communication. Upward Safety Communication is defined as freedom feeling of employee to discuss safety related information to their manager (Hofmann and Morgeson, 1999; Hofmann and Stetzer, 1998). Upward Safety Communication has several benefits as it improves understanding of safety procedures, improves monitoring of employee compliance and early problem identification (Kath, 2010). Further research on Voice Behavior and Upward Safety Communication found that leadership is one of the factors that has impact on Voice Behavior (Detert & Buris, 2007) and Upward Safety Communication (Adelman, 2012). More detailed Paternalistic Leadership, Chen (2017) find that two dimensions of Paternalistic Leadership, which are Benevolent Leadership and Morality Leadership, has positive relationship to Prosocial Voice Behavior and Upward Safety Communication. In the other hand, Chen (2017) find that the other dimension, which is Authoritarian Leadership, has negative relationship with Prosocial Voice Behavior and Upward Safety Communication.

To further extend of previous research, the intention of this study is to investigate the role of Perceived Organizational Support behind the influence of Benevolent Leadership and Morality Leadership to Prosocial Voice Behavior and Upward Safety Communication. Perceived Organizational Support initiates a social exchange process so that employees feel obligated to help the organization to achieve the goals (Kurtessis, Eisenberge, Ford, Buffardi, Stewart, & Adis, 2015). Spesific study on Benevolent Leadership and Morality Leadership by Colquitt, Scott, & LePine (2007) also show that Benevolent Leadership and Morality Leadership behavior initiate strong reciprocal relationship between leader and subordinate. Results of this study are expected to enhance study literature related to Prosocial Voice behavior, Upward Safety Communication and Paternalistic Leadership, spesificaly Benevolent Leadership and Morality leadership. The result is also expected to give insight in practical implementation for cabin crew management to promote Prosocial Voice Behavior and Upward Safety Communication in their organization.
2. LITERATURE REVIEW

Benevolent leadership and morality leadership with perceived organizational support

Paternalistic leadership study is based on relationship based approach with the center of attention is the leader attribute (Pellegrini, Scandura, & Jayaraman, 2010). The manager with paternalistic leadership show concern on the off-job aspect of the employee and tries to increase employee well-being (Gelfand, Erez, & Aycan, 2007). Furthermore, Aycan, Kanungo, & Sinha (1999) argue that the attention and care from the manager to employee is expected to have in return in the form of loyalty, compliance and deference to manager and organization. This returns expectation from management that benefit organization is likely congruent with the Perceived Organizational Support. The obligation feeling by employee, as a result from the Perceived Organizational Support, make employee to balance with their relationship with organization. This balancing process by employee lead to developing attitude and behavior that gives advantages to the organization (Kurtessis, Eisenberge, Ford, Buffardi, Stewart, & Adis, 2015).

From the three dimensions of Paternalistic Leadership that is proposed by Farh, Cheng, & Chou (2000), Benevolent Leadership and Morality Leadership are likely to create strong reciprocal relationship in the form of employee action that benefit the organization. Farh and Cheng (2000) argue the manager with Benevolent Leadership show individualized, holistic concern on subordinate personal matter and family well being. They argue that implementation of Benevolent Leadership by manager will lead to subordinate feeling of grateful. Furthermore, the subordinate will fell obligated to return the benefit they get from their manager. Farh and Cheng (2000) argue that manager with Morality Leadership demonstrate superior personal virtues and this will create respect of subordinate to manager. The investigation on Benevolent Leadership and Morality Leadership in organization shows that theys has positive relation on the organization performance (Chen, Eberly, Chiang, Farh, & Cheng, 2014). Furthermore, Chen (2017) find that Benevolent Leadership and Morality Leadership has significant relationship with Prosocial Voice Behavior of employee and Upward Safety Communication. Those benefits from employee to organization due to Benevolent leadership and Morality Leadership is likely because Benevolent Leadership and Morality Leadership create general belief of employee that the organization cares about their well-being that became base of Perceived Organizational Support, hence we propose hypothesis:

Hypothesis 1a: Benevolent leadership is positively related to perceived organizational support

Hypothesis 1b: Morality leadership is positively related to perceived organizational support

Benevolent leadership & morality leadership with prosocial voice behavior

Voice behavior defined as non-required behavior that emphasizes expression of constructive challenges with intent to improve rather than merely criticize (Van Dyne and LePine, 1998). Furthermore on research about voice behavior, research also investigates the type of voice behavior. Research argue that there are three type if voice, which are Acquiescent Voice, Defensive Voice, and ProSocial Voice (Dyne, Ang & Botero,2003). From these three type of voices, Prosocial Voice behavior is the mostly needed in organization because it express ideas and information that based on cooperative ideas and focus on benefit other and organization. Chamberlin, Newton, & Lepine (2017) argue that supervisor and leader behavior are some antecedents of voice behavior. Morisson (2014) suggest that voice may tend to be motivated by transformational leadership, leader-member exchange (LMX), ethical leadership, trust in a leader, positive expectation about leaders'
intentions or behaviors in potentially risky situations and leader openness. On the other hand, leader with hostility and abusive behavior restrict the voice engagement of their supervisor. To be more specific about prosocial voice behavior, Chen (2017) argue that Benevolent Leadership and Morality Leadership has significant relationship with Prosocial Voice, hence we propose hypothesis:

**Hypothesis 2a:** Benevolent leadership is positively related to prosocial voice

**Hypothesis 2b:** Morality leadership is positively related to prosocial voice

*Benevolent leadership & morality leadership with upward safety communication*

To understanding the important of upward communication for an organization, it is critical to identify the way to increase upward communication in organization. Tourish (2005) also argue that open communication could be improved by several way related to leadership and organization. Some of the way to improve open communication are (1) Managers should seek out opportunities for regular formal and informal. (2) Train supervisors to be open, receptive and responsive to employee dissent. (3) Manager needs to openly model a different approach to the receipt of critical communication, and ensure that senior colleagues emulate this openness contact with staff at all levels. Roberts & O'Reilly (1974) argue that upward communication in organization is affected by three factors. Those factors are (1) trust in superior, (2) employee’s perception of superior’s influence in his future, (3) employee’s mobility aspirations. Hofmann & Stetzer (1998) also argue that positive climate as result of management action in organization influence the level of how employee fell free to give safety related information to management. Based on the nature of Benevolent Leadership and Morality Leadership, hence we propose hypothesis:

**Hypothesis 3a:** Benevolent leadership is positively related to upward safety communication

**Hypothesis 3b:** Morality leadership is positively related to upward safety communication

*Perceived organizational support with prosocial voice behavior*

The theory about organizational support suggest that Perceived Organizational Support initiates a social exchange process wherein employees feel obligated to help the organization to achieve its goals and objectives and expect that increased efforts on the organization’s behalf will lead to greater rewards (Kurtessis et al., 2015). This balancing process by employee lead to developing attitude and behavior that is favorable to the organization (Kurtessis et al., 2015). They argue that one of outcome from Perceived Organizational Support include In-role performance and organizational citizenship behavior. Other research on Perceived Organizational Support also stated that it has positive relation on the obligation feeling of employee to take action, that help organization to achieve the goal and take care organization welfare (Eisenberger et al., 2001). This outcome is congruent with Prosocial Voice Behavior that express express ideas and information that based on cooperative ideas and focus on benefit other and organization, hence we propose hypothesis:

**Hypothesis 4:** Perceived organizational support is positively related to prosocial voice

*Perceived organizational support with upward safety communication*

As mentioned above, Perceived Organizational Support of employee will create obligation feeling among employee to help the organization to achieve its goals (Kurtessis, Eisenberge, Ford, Buffardi, Stewart, & Adis, 2015). In the term of safety aspect, the
obligation feeling could be emerge as Upward Safety Communication from employee to organization to increase the safety performance of organization. Research by Tsui, Pearce, Porter & Tripoli (1997) also found that investment in employee, which encourage Perceived Organizational Support have impact on communication process inside organization. Furthermore, research by Hofmann & Morgeson (1999) found that Perceived Organizational Support has significant relationship of safety communication, hence we propose hypothesis:

**Hipothesis 5:** Perceived organizational support is positively related to upward safety communication

3. **RESEARCH METHODOLOGY**

**Sample and Procedure**

This study used sample from cabin crew of an airline in Indonesia. This research uses questionnaires that are distributed to cabin crew using online platform and offline platform. The questionnaires are composed from group of questions that are used by previous research. The questionnaires consist of questions for assessing variable used in this research that include Benevolent Leadership, Morality Leadership, Perceived Organizational Support, Prosocial Voice Behavior and Upward Safety Communication. The questionnaires are translated to Indonesian before distributed to the respondents. Before fulfill the questionnaires form, all respondents are briefed with information that state the survey is voluntary and all information given in the survey are confidential. The first stage of the research is conducting pre-test of the survey to test the validity and reliability of the questionnaires. After testing the validity and reliability, the questionnaires are distributed to all cabin crew. Cabin crew that filled the survey is from base Jakarta, Makassar and Surabaya. All data from the respondents are analyzed using SEM (Lisrel) to know the relationship between those variables. The conceptual model used in this study can be seen in Fig.1.

![Conceptual Model](image)

**Figure1:** Conceptual model

**Measures**

*Benevolent and Morality Leadership*
Benevolent Leadership and Morality Leadership are measured using five scale item that was used in Chen (2017). These items are based on research of Cheng, et al. (2000). They propose three dimensions of paternalistic leadership which are Benevolent Leadership, Morality Leadership and Authoritarian Leadership. They develop 42 items scale correlated to the three dimension of paternalistic leadership that used by many research and in apparel is evolved and validated by those research (Chen et al., 2014). The respondent are asked to rate their experience of Benevolent Leadership and Morality Leadership activities ranging from 1 (strongly disagree) to 7 (strongly agree). The internal consistency reliability estimate (Cronbach's Alfa) for Benevolent Leadership is .911 and .935 for Morality Leadership.

Prosocial Voice Behavior
To assess Prosocial Voice Behavior, we use scale developed by Dyne, Ang and Botero (2003). In their research, Dyne et al., 2003 propose three types of voice behavior with Prosocial Voice behavior is one of the type. In this research, respondent are asked to rate the five statement to assess the Prosocial Voice Behavior using five scale item ranging from 1 (strongly disagree) to 7 (strongly agree). The internal consistency reliability estimate (Cronbach's Alfa) for Prosocial Voice Behavior is 0.935.

Upward Safety Communication
Upward Safety Communication is measured with scale used in Chen (2017). This scale measurement is used based on the study of Hofmann and Stetzer (1998). With this measurement, respondent are asked to rate five statements of Upward Safety Communication using seven scale ranging from 1 (not at all) to 7 (to a very large extent). The internal consistency reliability (Cronbach's Alfa) for Upward Safety Communication is 0.839.

Perceived Organizational Support
Perceived Organizational Support is measured by the scale developed by Eisenberger, Huntington, Hutchison and Sowa (1986). In this research we use sixteen items from the thirty six items developed by Eisenberger et al., (1986). These sixteen items are choosen for the short version of suvey to assess Perceived Organizational Support. Respondent are asked to range the statement and assign the rate ranging from 1 (strongly disagree) to 7 (strongly agree). The internal consistency reliability estimate (Cronbach's Alfa) for Perceived Organizational Support is .903

4. RESULT AND DISCUSSION

Total of 151 respondents data are analyzed in this research. Table 1 shows the demographic data of the respondents in this research. From the data we can see that among the respondent, 76% are female cabin crew. The majority of the respondents (62%) are 21 up to 30 years old. Related to the tenure duration in the company, 32% of the respondents have been working for 6 up to 10 years while 26% of respondents have been working for 3 to 5 years in the company. Most of the respondents (56%) have high school equivalent education level and 27% respondents have bachelor degree education level. 62% of respondents still working under temporary contract agreement while 38% have permanent employee status. The company has three rank in cabin crew operation, 6% of respondent comes from purser, 9% are deputy purser and 85% are flight attendant.
Table 1. Respondent Demographic

<table>
<thead>
<tr>
<th>Gender (%)</th>
<th>Age (%)</th>
<th>Tenure in Company (%)</th>
<th>Education Level (%)</th>
<th>Employee Status (%)</th>
<th>Rank (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male: 24%</td>
<td>&lt; 20 : 10%</td>
<td>&lt; 1 year : 10%</td>
<td>High School: 56%</td>
<td>Permanent: 38%</td>
<td>Purser: 6%</td>
</tr>
<tr>
<td>Female: 76%</td>
<td>21-30 :</td>
<td>1-2 years: 21%</td>
<td>Associate's Degree: 32%</td>
<td>Contract: 62%</td>
<td>Deputy Purser: 9%</td>
</tr>
<tr>
<td></td>
<td>&gt; 35 :</td>
<td>3-5 years: 26%</td>
<td>Bachelor: 27%</td>
<td>Flight Attendant: 85%</td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt; 40 :</td>
<td>6-10 years: 32%</td>
<td>Magister : 2%</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>&gt; 50 :</td>
<td>&gt; 15 years : 9%</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2 show the result of path coefficient of the first conceptual model that include Benevolent Leadership (BL), Perceived Organizational Support (POS), Prosocial Voice Behavior (PSV) and Upward Safety Communication (USC). Meanwhile Table 4 show the result of path coefficient of the second conceptual model which describe the relationship that include Morality Leadership (ML), Perceived Organizational Support (POS), Prosocial Voice Behavior (PSV) and Upward Safety Communication (USC).

Table 2. Path coefficient between Benevolent Leadership, Perceived Organizational Support, Prosocial Voice Behavior and Upward Safety Communication

<table>
<thead>
<tr>
<th></th>
<th>BL</th>
<th>POS</th>
<th>PSV</th>
<th>USC</th>
</tr>
</thead>
<tbody>
<tr>
<td>BL</td>
<td>0</td>
<td>0.56</td>
<td>0.47</td>
<td>0.68</td>
</tr>
<tr>
<td>POS</td>
<td>0</td>
<td>0</td>
<td>0.13</td>
<td>0.18</td>
</tr>
<tr>
<td>PSV</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>USC</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

In the conceptual model as shown in figure 1, hypothesis 1a that propose Benevolent Leadership is positively related to Perceived Organizational Support is supported. Benevolent Leadership has 0.56 path coefficient with Perceived Organizational Support. Hypothesis 2a that propose Benevolent Leadership is positively related to Prosocial Voice Behavior is supported with coefficient 0.47. Hypothesis 3a that propose Benevolent Leadership is positively related to Upward Safety Communication is supported. Benevolent Leadership has 0.68 path coefficient with Upward Safety communication. Hypothesis 4a that propose Perceived Organizational Support is positively related to Prosocial Voice behavior is supported with path coefficient 0.13. Hypothesis 5a that propose Perceived Organizational Support is positively related to Upward Safety Communication is supported with path coefficient 0.18. The T-value of the path between Benevolent Leadership, Perceived Organizational Support, Prosocial Voice and Upward Safety Communication are more than 1.96 as shown in Table 3. Because the T-value are greater than 1.96, all paths are significant. Thus, mediation of Perceived Organizational Support in this model is partial mediation between Benevolent Leadership with Prosocial Voice and Upward Safety Communication.

Table 3. T-Value between Benevolent Leadership, Perceived Organizational Support, Prosocial Voice and Upward Safety Communication

<table>
<thead>
<tr>
<th>T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benevolent Leadership -&gt; Perceived Organizational Support</td>
</tr>
</tbody>
</table>
Table 4. Path coefficient between Morality Leadership, Perceived Organizational Support, Prosocial Voice Behavior and Upward Safety Communication

<table>
<thead>
<tr>
<th></th>
<th>ML</th>
<th>POS</th>
<th>PSV</th>
<th>USC</th>
</tr>
</thead>
<tbody>
<tr>
<td>ML</td>
<td>0</td>
<td>0.56</td>
<td>0.40</td>
<td>0.59</td>
</tr>
<tr>
<td>POS</td>
<td>0</td>
<td>0</td>
<td>0.17</td>
<td>0.24</td>
</tr>
<tr>
<td>PSV</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>USC</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

In the conceptual model, hypothesis 1b that propose Morality Leadership is positively related to Perceived Organizational Support is supported. Morality Leadership has 0.56 path coefficient with Perceived Organizational Support. Hypothesis 2b that propose Morality Leadership is positively related to Prosocial Voice Behavior is supported with coefficient 0.4. Hypothesis 3b that propose Morality Leadership is positively related to Upward Safety Communication is supported. Morality Leadership has 0.59 path coefficient with Upward Safety Communication. Hypothesis 4b that propose Perceived Organizational Support is positively related to Prosocial Voice Behavior is supported with path coefficient 0.17. Hypothesis 5b that propose Perceived Organizational Support is positively related to Upward Safety Communication is supported with path coefficient 0.24. Beside path coefficient value, Table 5 shows that all T-value of the path between Morality Leadership, Perceived Organizational Support, Prosocial Voice Behavior and Upward Safety Communication are greater than 1.96. This result shows that all paths in this model have significant relation. This also means that Perceived Organizational Support has partial mediation between Morality Leadership with Prosocial Voice Behavior and Upward Safety Communication.

Table 5. T-value between Morality Leadership, Perceived Organizational Support, Prosocial Voice Behavior and Upward Safety Communication

<table>
<thead>
<tr>
<th></th>
<th>T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Morality Leadership -&gt; Perceived Organizational Support</td>
<td>35.93</td>
</tr>
<tr>
<td>Morality Leadership -&gt; Prosocial Voice behavior</td>
<td>13.53</td>
</tr>
<tr>
<td>Morality Leadership -&gt; Upward safety Communication</td>
<td>24.15</td>
</tr>
<tr>
<td>Perceived Organizational Support -&gt; Upward Safety Communication</td>
<td>11.46</td>
</tr>
<tr>
<td>Perceived Organizational Support -&gt; Prosocial voice behavior</td>
<td>6.19</td>
</tr>
</tbody>
</table>

5. CONCLUSION AND RECOMMENDATION

The objective of this research is to investigate relationship between Benevolent Leadership and Morality Leadership, as two of three paternalistic leadership dimensions proposed by Farh, Cheng, & Chou (2000), to Prosocial Voice Behavior dan Upward Safety Communication in Indonesian cabin crew. This research uses measures of benevolent leadership dan morality leadership refer to research conducted by Chen (2017). Research by Chen (2017) is conducted in reference to three dimension of paternalistic leadership proposed by Farh, Cheng, & Chou (2000) which is based on Confucian value system in Taiwan. This research
uses this measure because Indonesian culture has similarity with Taiwanese culture (Irawanto et al., 2011). Indonesian culture and Taiwanese culture also similar based on research by House et al. (2004). Furthermore, Irawanto et al. (2011) also argue that Indonesian culture and Taiwanese culture have close similarity in the context of culture value and organizational behavior. Based on previous research, this research use those measure of Benevolent Leadership and Morality Leadership in Indonesian cabin crew.

The result of this research shows that Benevolent Leadership and Morality Leadership have positive relation to both Prosocial Voice Behavior and Upward Safety Communication. Furthermore, Benevolent Leadership has higher effect on Prosocial Voice Behavior compared to Morality Leadership. Related to the effect on the Upward Safety Communication, Benevolent Leadership also has higher impact compare to Morality Leadership. This finding is similar with research by Chen (2017). In his research, Chen (2017) found that Benevolent Leadership has highest impact on Prosocial Voice Behavior and Upward Safety Communication compared to Morality Leadership and Authoritarian Leadership as the three dimension of paternalistic leadership that is proposed by Farh et al. (2000). Chen (2017) argues that management with Benevolent Leadership behavior creates unity among cabin crew and relationship between management and cabin crew. This conducive situation makes cabin crew to engage more in activity that benefiting management like giving safety feedback to management. As a conclusion, base on this research, Benevolent Leadership is the best way to encourage cabin crew Prosocial Voice behavior and Upward Safety Communication compared to Morality Leadership. So that, leader in cabin crew management should show more Benevolent Leadership behavior to their subordinate. This is can be done by managers in the way of showing more concern about their subordinate life, not only work life but also beyond their work life such as their family well being.

The objective of this research is also to investigate how Benevolent Leadership and Morality Leadership relationship with Perceived Organizational Support. Based on result of empirical research conducted in this study, Benevolent Leadership and Morality Leadership have positive relationship with Perceived Organizational Support. This finding is in accordance with research by Aycan et al. (1999). Aycan et al. (1999) research find that all attention and concern that received from the manager creating reciprocal action from the subordinate so that they provide benefits not only to their manager but also to organization as a whole. In this research, organization and manager received benefit in the form of safety feedback and information from their cabin crew. Furthermore, this research also wants to compare the influence of Benevolent Leadership and Morality Leadership to Perceived Organizational Support. The result finds that Benevolent Leadership and Morality Leadership have similar impact to Perceived Organizational Support. From this finding we can also conclude that the effect of benevolence concern shown by management to cabin crew create reciprocal action from cabin crew to organization. This reciprocal effect is similar to the effect due to respect from cabin crew to management that implement Morality Leadership.

From the result of this research, another finding is Perceived Organizational Support can be regarded as mediation variable between Benevolent Leadership and Morality Leadership with Prosocial Voice Behavior and Upward Safety Communication. This finding in accordance with research by Kurtessis et al. (2015). They argue that subordinate will engage in reciprocal action that give advantage to organization due to advantages that they received previously. Specifically related to Upward Safety Communication, research by Hofmann & Morgeson (1999) find that Perceived Organizational Support has significant relationship of safety communication. From the T-value in Table 3 and Table 5, we can see that all path is significant. From that result we can conclude that mediation model of Perceived Organizational Support is partial mediation.
As conclusion, to increase number feedback and information from cabin crew related to safety issue, management have to increase factor that can positively influence variable of Prosocial Voice Behavior and Upward Safety Communication among all cabin crew. Based on result of this research, management of cabin crew can adopt Benevolent Leadership and Morality Leadership as factor to increase cabin crew Prosocial Voice Behavior and Upward Safety Communication. Comparing those two leadership behavior, Benevolent Leadership give higher impact on Prosocial Voice Behavior and Upward Safety Communication. The implication of this research is it is more efficient for cabin crew management to conduct Benevolent Leadership compare to Morality Leadership. But it doesn’t mean that management should ignore Morality Leadership. Instead it is good initiative to combine both of leadership.

Despite all results and implications of this study, there are some limitations in this research. These limitations can be referenced for better research in the future. The first limitation is regarding sample size used in this research. This research is conducted in one Indonesian airline company only. Next research could be conducted with the scope of more than one Airline Company. Further research also could be conducted to study comparison between full service airline and low cost carrier airline. This is very important because nowadays low cost carrier airline grows significantly. Widening the scope of research sample is expected to give more comprehensive result of the study. Expanding the sample size also give benefit because it will include different culture from different airline company.

Another improvement that can be implemented regarding this study is to explore different variable in relationship between Benevolent Leadership and Morality Leadership to Prosocial Voice Behavior and Upward Safety Communication. This could be additional insight to literature of Benevolent Leadership, Morality Leadership, Prosocial Voice Behavior and Upward Safety Communication. This also could be crucial benefit regarding practical implication for cabin crew management. One variable example that could be explored is Leader-member Exchange. Morrisson (2014) finds that voice behavior is influenced by Leader-member Exchange. Another improvement of this study is related to the use of qualitative study to do the research. The result of qualitative approach could be important additional understanding to the result from quantitative approach that is used in this research. This also can enrich literature study regarding issue of leadership, Prosocial Voice Behavior dan Upward Safety Communication.

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The Influence Ability of Personal Techniques and Training and Education Programs on the Performance of Information System with Top Manager Support as a Moderating Variable
(A Case Study in Several Social Services in the Regional Government of Yogyakarta City)

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Abstract
This study aims to determine the factors influence user perceptions of information system performance. The factors are the ability of personal techniques and training and education programs on the performance of information systems with mediating variables of top management support. Personal technical ability is the ability of individuals to run the system and to adapt the new system. The training program is a training organized by agencies to improve the ability of users to run information systems. Top management support, is a motivation given by top management. This study was conducted at several government agencies in Yogyakarta. The data analyzed used Multiple Linear Regression. The results of the study indicate that the ability of personal techniques and education and training programs influences the performance of information systems. But that influence was not mediated by top management support. Top management support does not affect the performance of information systems.

Keywords: ability of personal technique, training and education programs, top manager support, performance of information system
1. INTRODUCTION

Government Agencies in Indonesia have used the application of the local financial information system (SIPKD) in the financial reporting process. SIPKD is the implementation of the application of double entries in financial reporting in the government sector. SIPKD is implemented both at the center and in the region, presenting information for the management of financial activities, improving the information produced by the existing system, both regarding the quality, accuracy of presentation and structure of the information. The use of SIPKD is a government effort to take advantage of advances in information technology to encourage the realization of a clean, transparent, and able government respond to the demands of change effectively.

The success of using SIPKD in an agency depends entirely on the SIPKD operator. The SIPKD operator is a civil servant who is assigned to be the SIPKD operator based on the Regional Head's Decree. SIPKD operators have different abilities in carrying out SIPKD. These different abilities make operators' perceptions of SIPKD's performance also different. Operators who have better technical abilities and are able to run SIPKD properly assume that SIPKD's performance is very good. On the contrary, operators who have difficulty running the SIPKD certainly consider SIPKD's performance to be poor. Personal technical ability of operator influenced the performance of Information system through the support from Top management. The ability of the user to operate SIPKD can be improved through intensive education and training in order to increase understanding of SIPKD. Increased understanding and encouraging users to assume that information system performance is good. This relationship can also be mediated with top management support. The more frequent users of education and training, the more top management support is increasing, so that system performance also increases.

Previous research that related personal technical abilities, education and training and top manager support for information system performance has been carried out. The research conducted by Nurhayati and Yuhanis (2017), conducted research in the banking industry in the city of Semarang on the performance of accounting information systems. The results show that operator technical expertise, top manager support and top manager support affect the performance of accounting information systems. Septianingrum (2014) found that User ability has an influence in completing tasks with the right time in assessing information system performance. Research by Kaidhir and Neri (2015) states that the factors that influence user perceptions of information system performance are user satisfaction and personal technical abilities. While top management support influences the ability of personal user techniques in running information systems.

Based on several previous studies, this study will reexamine the factors that influence information system performance. The factors tested in this study were personal technical ability variables and education and training program variables. Top management support will be analyzed as a mediating variable. The logic used is the ability of personal techniques to influence the user's understanding of the workings of information systems, so that users with high personal technical skills will have a perception that the performance of information systems is good. Personal technical skills will further improve the performance of information systems if the top management supports the user.

2. LITERATURE REVIEW AND HYPOTHESIS

Information system performance

An information system is valuable for the organization and for the output produced (Loudon and Loudon, 2016). Some of the benefits obtained by the existence a good
information system is that it can improve the efficiency of the process. Efficiency can occur because it can reduce production costs, improve the accuracy of records, and can improve the quality of control and planning.

Performance is the level of achievement of results for the implementation of a particular task in an agency or organization. Nur Sari (2014) defines system performance to mean an assessment of the implementation of the system, compared to previously set goals. Information system performance can be measured using two approaches, namely user satisfaction of information systems and usage of information systems of the system. Choe (1996), Soegiharto (2001), and Jen Tjhai Fung (2002), Luciana and Irmaya (2007) and Septianingrum (2014) to measure the performance of the information system of two dimensions:

Information System User Satisfaction
User satisfaction is one indicator of the success of information system development. Information system user satisfaction shows how far the user feels satisfied and believes in the information system that has been provided to meet their needs. Handoko dan Marfuah (2013), Heryanti (2014) stated that one form of satisfaction with the use of information systems is the repeated use of information systems.

Use of Information Systems
Users of information systems are people who will use information systems that have been developed (Chomastu 2014). The end users of information systems usually only focus on what they are doing on the system, so that more often it is found employees who do not recognize the information system used. (Rivaningrum, 2015) The main concern of users of information systems is how information systems can help complete their work. It is seen from the problem that must be solved, the opportunities that must be taken, the needs that must be met, and business boundaries that must be contained in the information system. (Rivaningrum, 2015)

Local Financial Information System (SIPKD)
Local Financial information system or SIPKD is the implementation of the application of double entries in financial reporting in the government sector. We can say SIPKD is a kind of Accounting Information System for Government. The use of SIPKD is regulated in Law No.33 of 2004 concerning Financial Balance between the Central and Regional Governments, PP No.56 of 2005 concerning Regional Financial Information Systems, and Minister of Finance Regulation No.46 of 2006 concerning Procedures for Submitting Regional Financial Information. Based on UU No 33 /2004, SIPKD is an integrated application that is used as a tool for local government that is used to increase the effectiveness of implementation of various regulations in the field of regional financial management based on the principles of efficiency, economics, effectiveness, transparency, accountability and auditable.

Factors Affecting Information System Performance
Top Management Support
Soegiharto (2001) stated that top management has a big contribution to how the information system is directed. In addition, top management has the duty to socialize the development of information systems used, so that it will motivate users to participate in system development for the success of a system. Top management support is the party
responsible for providing general guidelines for the information system section. Top management support can be a very important factor in determining the success of all activities related to information systems.

**Personal Engineering Capabilities**

According to Romney (2014), personal technical ability is the capacity of individuals in the use of information systems to do various tasks in a job according to the responsibilities entrusted. User ability has an influence in completing tasks with the right time in assessing information system performance. According to Robbins (2008) personal technical abilities can be seen from:

**Knowledge (Knowledge)**

Knowledge is defined as the basis of truth or facts that must be known and applied in the work. Knowledge as an information system user can be seen from:

- Having knowledge about the information system.
- Understanding the knowledge of assignments from their work as users of information systems (Susilowati, 2014)

**Ability**

Ability is defined as initial ability or results of practice. Ability as an information system user can be seen from:

- The ability to run an existing information system.
- The ability to operate information needs.
- Ability to do assignments from work.
- Ability to harmonize abilities with tasks.

**Skill (expertise)**

Expertise is defined as the ability to express work easily and carefully and requires basic abilities. Expertise as an information system user can be seen from:

- Expertise in work that is the responsibility.
- Expertise in expressing needs at work.

**Training and Education Program**

Rivaningrum (2015), the purpose of holding user and user education and training programs is to improve the ability and understanding of users of the information system used. In addition, the purpose of holding user education and training programs is to make users feel satisfied and will use a system that has been mastered well and smoothly. An organization in the development of information systems must seek for education and training programs for users of information systems. Because with the presence of high education and training, users can get the ability to identify their information requirements and the seriousness and limitations of information systems and this capability can lead to improved information system performance.

**The Previous Research**

Research on factors that influence information system performance has been carried out by several researchers. The research conducted by Septianingrum (2014), Nurhayati and Yuhanis (2015) on Bank Entity, found the same The results for personal technical abilities and education and training programs. Both variables influence the performance of information system. Different result for Top management support. According to Nurhayati
and Yuhanis (2015) the Top manager support influence the performance of information system, but Septianingrum (2014) was not.

Research conducted by Rivaniingrum (2015) states that the factors of personal technical capability, top management support and education and training programs affect the performance of information systems. While involvement in system development functions as a moderating variable. Rusdi and Nurul's (2015) states that only the variables involved in system development affect system performance. While the variable user mobility, top management support, company size, function variability, education and training programs, task variability and information system development formalization did not affect information system performance.

Khaidir and Neri's research (2015) states that information system performance is influenced by users. And not influenced by user capabilities, top manager support, formalizations of system development and user involvement in information system development. Research conducted by Putra (2017) states that personal engineering skills, top management support and education and training programs affect the performance of information systems.

**Framework of Thinking and Hypothesis**

**Effect of Personal Technical abilities on Information System Performance**

Personal technical ability means the ability to operate information system applications used by the organization. Personal technical abilities can be seen from the quadrant (knowledge), abilities (abilities), and skills (skills). The higher the ability of the personal information systems of information systems, will improve the performance of information systems due to a significant relationship between the higher the ability of personal techniques, the higher the performance of information systems, Septianingrum (2014), the hypotheses to be tested are:

**Hypothesis 1:** Personal Engineering Capabilities affect Information System Performance

**Effect of Training and Education Programs on Information System Performance**

The user training and education program is an effort to develop human resources by training and improving education which is expected to increase work productivity. The presence of training and education programs for users can get the ability to identify the advantages and limitations of information systems. This capability can lead to improved information system performance. Training and education programs also influence the performance of information systems. That there is a positive influence between training and education programs on information system performance according Rivaniingrum (2015), and Nurhayati and Yuhanis (2015). The hypothesis presented is:

**Hypothesis 2:** Education and Training Programs affect Information System Performance

**Top management support**

Top Management support the understanding of top management about the system and the level of interest, support, and knowledge of information systems. The level of support provided by top management for organizational information systems can be a very important factor in determining the success of all activities related to information systems. The greater support given by top management will improve personal technical skills and enhance the delivery of education and training programs. So that it also directly improves the performance of information systems. Septianingrum (2014). The hypothesis proposed is:
Hypothesis 3: Top management support affects Information System Performance

Hypothesis 4: Top management support mediates the relationship between personal technical skills and education and training programs with information system performance.

Based on the description described, it can be formulated through a framework like this:

![Figure 1. Research design](image)

The figure 2.1 show that Personal technical skills can direct the attention of top management to the ability of employees, so that the top management's perception of personal technical abilities influences the performance of information systems. Likewise education and training programs can influence top management on information system performance. Directly each independent variable affects the performance of information systems.

3. RESEARCH METHODOLOGY

Data and Data Collection Method

This research use primary data. Data was obtained by distributing questionnaires. Questionnaires were distributed to civil servants at the Social Service of the Yogyakarta City Government. The questionnaire was distributed by means of the research assistant who directly came to the respondent, and asked the respondent to fill out the questionnaire. The questionnaire was awaited by the research assistant, so that respondents who did not understand the statement in the questionnaire could immediately ask the purpose of the questionnaire to the research assistant. Respondents are divided in two, civil servants who are directly involved, and civil servants who are indirectly involved in the use of information systems. Civil servants who are directly involved are civil servants who work in the budget and accounting section. While civil servants who are not directly involved are civil servants who use information generated by information systems.

Operational Definition of Variables

Dependent Variable

Dependent variable in this study is the user's perception of information system performance (Y). Information system performance is a tool used to measure the effectiveness and efficiency of information systems by using two indicators, namely user satisfaction and
use of information systems. User satisfaction shows how far users are satisfied and believe in the information system provided to meet their needs and how often the information system is used. This variable uses seven question items with a 5 point Likert scale.

Independent Variables

There are two independent variables (independent variables) in this writing, all of which are user perceptions about:

Personnel Technical Ability (X1)
The personal technical capabilities of information systems are measured using the average level of personal education of information systems. That the higher the ability of personal information systems techniques, will improve the performance of information systems due to the positive relationship between the ability of personal information systems and the performance of information systems. Personal technical skills are measured by two indicators, namely the experience of using the system and the ability to use it. This variable uses 4 question items with a 5 point Likert scale.

Training and Education Program (X2)
Training and education are efforts to develop HR and not only increase knowledge, but also improve work skills, thereby increasing work productivity. Information system performance will be higher if user training and education programs are introduced. The education and training program is measured by two indicators, namely how to use the system and the benefits of the training and education programs of users. This variable uses 4 question items with a 5 point Likert scale.

Mediation variable Top Management Support (X3)
It is interpreted as the top management's understanding of computer systems and the level of interest, support, and knowledge of information systems or computerization. If the greater support provided by top management will improve the performance of information systems due to the relationship between top management support in the development and operation of information systems with information system performance. Top management support is measured by two indicators, namely management capabilities using computers, and attention to information system performance. This variable uses four question items with a 5 point Likert scale.

Data analysis

Data Quality Test

Test the quality of data is done by testing the validity and reliability test. Validity test is a way to find out whether the statements in the questionnaire represent the variables to be tested. Validity test is done by testing the correlation between scores per statement item with the total score of each statement. Data is declared valid if the correlation coefficient is more than 0.5. Reliability testing is a method to comply with the accuracy of answers. The reliability test results show that respondents understand the contents of the statement, thus guaranteeing that the questionnaire is filled in by the intended party in the study. Reliability test was carried out with Cronbach Alpha. Data is declared reliable if the cronbach alpha value is more than 0.5.
Hypothesis testing

Hypothesis testing is the basis for making hypothesis acceptance decisions. Hypothesis testing is done by regression. Regression equations in general are: (Sugiyono, 2010)

Hypothesis testing is done through F test, t test and test coefficient of determination. F test to determine the simultaneous effect of independent variables on the dependent variable. T test to find out the partial effect of the independent variable on the dependent variable. Test coefficient of determination tests the extent to which the independent variable is able to explain the dependent variable.

The research data were analyzed using stepwise regression. The use of stepwise regression because the research model uses mediating variables

The stages of the regression test are: (Baron and Kenny, 1986)

Stage 1 examines the direct effect of the independent variable on the dependent variable, with the equation:
Y = a + b1X1 + b2X2 ........................................... ........................................... (1)
Y = User's perception of information system performance
a = constant
X1 = Personal Technical abilities
X2 = Education and Training Program
b1, b2 = regression coefficient

Stage 2 examines the effect of mediating variables on the dependent variable, with the equation:
Y = a + b3X3 ............................................. ....................................... (2)
X3 = top management support
b3 = regression coefficient

Stage 3 examines the effect of independent variables on mediating variables, with equations:
X3 = a + b4X1 + b5X2 ........................................... ..................... (3)

Stage 4 tests the function of the mediating variable by comparing the regression coefficients of direct influence (b1 and b2) with the results of multiplication between the effect of the mediating variable on the dependent variable and the effect of the independent variable on the mediating variable. Comparison of the direct influence and influence of mediation is carried out by reference as follows:

Table 4.1. The function of Mediating Variable

<table>
<thead>
<tr>
<th>Comparison</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>b1 &gt; (b3 x b4)</td>
<td>There is a direct influence between personal technical skills and user perceptions of information system performance. Top management support Top management support is not a mediating variable</td>
</tr>
<tr>
<td>b1 &lt; (b3 x b4)</td>
<td>There is an indirect influence between personal technical ability and the user's perception of information system performance, top manager support functions as a mediating variable.</td>
</tr>
<tr>
<td>b2 &gt; (b3 x b4)</td>
<td>There is a direct influence between educational programs and</td>
</tr>
</tbody>
</table>
training with the user's perception of the performance of information systems. Top management support top management support is not a mediating variable.

\[ b_1 < (b_3 \times b_4) \]

There is an indirect influence between education and training programs with the user's perception of information system performance, top manager support functions as a mediating variable.

4. RESULT AND DISCUSSION

Description of Respondents

The respondents of this study were 96 civil servants in the Yogyakarta City Social Service. The research respondents were civil servants with the highest working period of 5-15 years. The average age of respondents is 42 years. The majority of respondents' education (87%) is a bachelor's degree. The conditions of the respondents indicate that the respondents are eligible parties to fill out the questionnaire. The questionnaire response rate of this study is:

Table 4.2. Response rate

<table>
<thead>
<tr>
<th>Number of Questionnaire distributed</th>
<th>100 kuesioner</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Questionnaire received (Response rate)</td>
<td>98 kuesioner</td>
<td>98%</td>
</tr>
<tr>
<td>The number of questionnaires can be processed (usable rate)</td>
<td>96 kuesioner</td>
<td>96%</td>
</tr>
</tbody>
</table>

Data Quality Test

Validity test

Test the validity of using Pearson correlation. The results of the data validity test show that all statements in each variable show a correlation coefficient of more than 0.5%. The results of the validity test of all statements in each variable are presented in the following table 4.2.1.

Table 4.2.1. Validity Test Result

<table>
<thead>
<tr>
<th>Elements</th>
<th>Coefficient Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Technical Ability – Statement 1</td>
<td>.620**</td>
</tr>
<tr>
<td>Personal Technical Ability 1 – Statement 2</td>
<td>.741**</td>
</tr>
<tr>
<td>Personal Technical Ability – Statement 3</td>
<td>.818**</td>
</tr>
<tr>
<td>Personal Technical Ability – Statement 4</td>
<td>.806**</td>
</tr>
<tr>
<td>Education and Training – Statement 1</td>
<td>.973**</td>
</tr>
<tr>
<td>Education and Training – Statement 2</td>
<td>.995**</td>
</tr>
<tr>
<td>Education and Training – Statement 3</td>
<td>.983**</td>
</tr>
<tr>
<td>Education and Training – Statement 4</td>
<td>.980**</td>
</tr>
</tbody>
</table>
Reliability Test Results

Test reliability using the Cronbach alpha test. Reliability test is used to ensure that the filler questionnaire is the party that was actually addressed in this study. The intended party is civil servants in the Yogyakarta City Social Service. The variable is declared valid if the cronbach alpha value is more than 0.6. Reliability test results are listed in the following table:

Table 4.2.2. Reliability Testing

<table>
<thead>
<tr>
<th>Variable</th>
<th>Cronbach Alpha</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Technical Capability</td>
<td>0.790</td>
<td>790</td>
</tr>
<tr>
<td>Training Program</td>
<td>0.856</td>
<td>856</td>
</tr>
<tr>
<td>Support</td>
<td>0.850</td>
<td>850</td>
</tr>
<tr>
<td>Office of Information System</td>
<td>0.784</td>
<td>784</td>
</tr>
</tbody>
</table>

Hypothesis Test Results

Independent Variable Effect Test on Dependent variables

Hypothesis testing uses multiple regression. Multiple regression tests to determine the effect of independent variables (personal engineering skills and educational and training programs) with dependent variables (user perceptions of information system performance. Hypothesis test results from multiple regression are as follows:

Table 4.3. Output from Multiple Regression

<table>
<thead>
<tr>
<th>Elements</th>
<th>Value t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant (a)</td>
<td>5.868</td>
<td>0.000</td>
</tr>
<tr>
<td>Regression coefficient X1 (personal technical ability)</td>
<td>7.123</td>
<td>0.000</td>
</tr>
<tr>
<td>Regression X2 (education and training)</td>
<td>6.289</td>
<td>0.000</td>
</tr>
</tbody>
</table>
Based on the results of multiple regression in table 4.3.1., it can be seen that the F value for the Personal Technical Ability and Training Education variables is 79.502 with a significance of 0.000. This shows that simultaneously the personal technique ability variable and education and training variables influence user perceptions of information system performance significantly. R² value is 0.722, this means that the independent variable is able to explain 72% of changes in the dependent variable. The results of the t test show that the level of significance of the personal technical ability variable and the training education program is 0.000. Significance value is less than 0.05, which means that partially the personal technique ability variable and education and training program variables affect user perceptions of information system performance.

These results support the proposed hypothesis (hypotheses 1 and 2). The hypothesis are acceptable, so the results of this study state that the ability of personal techniques and education and training programs affect influences user's perception of the performance of information systems simultaneously and partially.

*Mediation Variable Test*

Test Results of Influence of Mediation Variables on Dependent Variables

The mediation variable test is done by comparing the regression coefficients of the direct relationship of the independent variable and the dependent variable with the regression coefficient through its mediating variables. Based on the results of the previous regression can be summarized as follows:

<table>
<thead>
<tr>
<th>Table 4.4. Multiple Regression X3 and Performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constanta (a)</td>
</tr>
<tr>
<td>16.31</td>
</tr>
<tr>
<td>Regression coefficient X3 (Top Management support)</td>
</tr>
</tbody>
</table>

Table 4.4. shows T Test the effect of mediation variables (Top Management Support) on the dependent variable (user perceptions of information system performance) using simple regression. The results of the tests are listed in the following table F value 0.882 sig for 0.350. It mean the value of F is not significant. R² value indicates 0.009 or 0.9%, meaning that the independent variable (top management support) is able to explain changes in the dependent variable (user perceptions of information system performance) by 0.9%. The value of t is 0.939 significance of 0.350. The significance value is above 0.05, so the top management support variable is proven not to affect user perceptions of information system performance. Based on those result therefore the hypothesis 3 proposed cannot be accepted. This study failed to prove the influence of top management support on user perceptions on information system performance.

*Independent Variable Regression Test Results with Mediation Variables*

This study will prove whether the mediating variable (top management support) is a variable that connects personal technical skills and education and training programs to the user's perception of information system performance. Tests are carried out in stages. At this
stage the effect of independent variables (personal technical abilities and education and training programs) on mediation variables (top management support) was tested. The regression test results are in the table below:

**Table 4.5. Multiple regression test result X1, X2 and X3**

<table>
<thead>
<tr>
<th></th>
<th>Value t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constanta (a)</td>
<td>8.006</td>
<td>0.000</td>
</tr>
<tr>
<td>Coefficient regression X1 (Personal Technical Ability)</td>
<td>0.19</td>
<td>0.85</td>
</tr>
<tr>
<td>Coefficient regression X2 (Education and Training)</td>
<td>-2.276</td>
<td>0.025</td>
</tr>
<tr>
<td>Value F: 3.874 sig 0.024</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The regression test results show that personal technical abilities do not affect the support of top management. The value of t for personal technical skills is 0.19 with a significance of 0.85. The significance value is above 0.05 so it is stated that the personal technical ability variable does not affect the support of top management. Variables of education and training programs proved to influence the support of top management. The value of t for the education and training program variables is -2.276 with a significance of 0.025. This shows that education and training programs have a negative effect on top management support. Civil servants who always attend education and training in carrying out information systems tend to feel they do not need top management support. This is because the user can solve the problem through training. So there is no need for top management support.

**Mediation Variable Test**

The mediation variable test is done by comparing the regression coefficients of the direct relationship of the independent variable and the dependent variable with the regression coefficient through its mediating variables. Based on the results of the previous regression can be summarized as follows:

**Table 4.6 Regression Test Result**

<table>
<thead>
<tr>
<th></th>
<th>Value T</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression coefficient X1 - Y</td>
<td>7.123</td>
<td>0.000</td>
</tr>
<tr>
<td>Regression coefficient X2 - Y</td>
<td>6.289</td>
<td>0.000</td>
</tr>
<tr>
<td>Regression coefficient X1 - X3</td>
<td>0.19</td>
<td>0.85</td>
</tr>
<tr>
<td>Regression coefficient X2 - X3</td>
<td>-2.276</td>
<td>0.025</td>
</tr>
<tr>
<td>Regression coefficient X3 - Y</td>
<td>0.939</td>
<td>0.350</td>
</tr>
</tbody>
</table>

Based on the summary of the regression test, it can be seen that the significant influence is the influence of the Personal Technical Ability variables and the Education and Training Program on User Perceptions of Information System Performance. The value of t indicates a positive number, so that the influence of independent variables on the dependent variable is unidirectional. This means that the higher the ability of personal techniques and the more education and training programs, the user will have a better perception of the performance of information systems. The effect of the independent variable on the mediating variable is indicated by the value of t and the significance of X1 to X3 and X2 to X3.

The regression test results show that the effect of X1 to X3 is not significant. The results of this test mean that the variable personal technical ability does not affect the support of top management. While the results of the X2 to X3 test indicate that the effect of X2 to X3 is
significant. This means that education and training programs affect the support of top management. The results of the regression test between mediating variables with independent variables indicate that the influence between top manager support and user perceptions of information system performance is not significant. This study did not succeed in proving the influence of top manager support with user perceptions of information system performance. Thus the mediation function of the top management support variable is also not proven in the study. The results of this study only show that the independent variables (Personal Engineering Capabilities and Education and Training Programs) have a direct influence on the dependent variable (user perceptions of information system performance). The relationship between Personal Engineering Skills and the Education and Training Program is straightforward, not mediated by top management support variables. Schemes of research results are described in the following diagrams.

![Diagram Hasil Penelitian](image)

**Figure 2: Diagram Hasil Penelitian**

5. RESULT AND DISCUSSION

Personal Ability Skills (KTP) is the ability of individual users to operate information systems. The results of data processing indicate that the KTP variable directly influences User Perceptions of Information System Performance. The results of the t test show that the value t is 7.123sig 0.000. This shows that KTP has a positive and significant effect on User Perception on Information System Performance. Positive effect means that the higher the user's ability to operate the information system, the better the user's perception of information system performance. The results of the study also show that there is a direct influence between the ability of personal techniques, it means that the ability of personal techniques directly affects the variable performance of information systems. This influence is not mediated by top management support variables. This means that users who have the ability to operate information systems, the user will have a perception that the information system that he performs is good.

The results of the study also show that there is a direct influence between the ability of personal techniques, meaning that the ability of personal techniques directly affects the variable performance of information systems. And this influence is not mediated by top management support variables. This means that users who have the ability to operate information systems, the user will have a perception that the information system that he
performs is good. This research is in line with the research of Septianingrum (2014) and Rivaningrum (2015). Both studies state that Personal Engineering Skills affect Information System Performance.

But the results of this study contradict the results of research by Rusdi and Nurul (2015). The implication of the results of this study is that the user will assume the performance of the information system is good, if the user has good personal technical skills. So that in the preparation of information systems, the main thing that must be considered is the technical ability of personal users. Evaluation of the technical skills of personal users can be done by looking at the user's educational background and the competencies of the user.

The education and training program is the training and education that users undergo regarding the operation of information systems. Education and training are predicted to affect user perceptions of the performance of information systems because with education and training the user's insight into the information system will be more open, so that the user is more.

The education and training program is the training and education that users undergo regarding the operation of information systems. Education and training are predicted to affect the user's perception of the performance of information systems because with education and training the user's insight into the information system will be more open, so that the user better understands the system he must run. With a better understanding, the user will have a perception that the performance of the information system is good. The results of the study show that education and training programs have a positive effect on user perceptions of information system performance. The more often the user participates in education and training, the user assumes that the information system performance is getting better. The results of this study are in line with Septianingrum's (2014) research, Rivaningrum (2015) and Nurul and Rusdi (2015).

The implication of the results of the study is that the design of information systems must include education and training programs. Loudon and Loudon (2016) state that investment in information systems consists of hardware investment, software investment and service investment. One form of service is education and training services for users of information systems. The results of the study show that the user's perception of information system performance is influenced by education and training programs. The underlying logic is that if the user gets an education and training program, the user understands the information system so that the user evaluates the information system performance according to his understanding.

Top management support is the top management appreciation form on the implementation of information systems. According to Loudon and Loudon (2016) the successful implementation of information systems depends on the commitment of top management to provide support to the operation of information systems. This study treats the upper management support variable as a mediating variable, namely the connecting variable between the dependent variable and the independent variable. The results of the study show that top management support does not affect the user perception variable on information system performance. The results of the study cannot prove that top management support influences information system performance, so that the function of this variable as a mediating variable cannot also be proven.

The influence between independent variables and mediating variables can be explained as follows: personal technical skill variables (KTP) do not affect the upper management support variables. These results indicate that the influence between KTP variables and information system performance is direct, not mediated by upper management support variables (DMA). Educational and training program variables affect DMA, but the effect is negative. The negative influence means that the more education and training programs, the lower the DMA. The underlying logic is that the more education and performance that the user takes, the
better the ability to operate the information system. This causes DMA not to be important. Negative effects also indicate that DMA variables do not function as mediating variables. The effect of education and training programs on user perceptions of information system performance is direct, not through mediating variables.

The results of these studies are in accordance with Septianingrum's research results (2014), as well as research by Nurul and Rusdi (2015). Both of these studies state that the upper management support variables do not affect the performance of information systems. But this research contradicts the research conducted by Rivaningrum (2015), Khaidir and Neri (2015) and research conducted by Putra (2016). The implication of the results of this study is that information system developers must pay attention to the factors of personal technical ability and education and training programs to improve the performance of the information system that they design. Focus on the two variables will cause the information system to fail in its implementation. Top management support is not proven to have influence, but top management support is still needed in the provision of information system infrastructure.

6. CONCLUSION AND RECOMMENDATION

Personal technical skills have a positive and significant influence on user perceptions of information system performance. Variables of personal technical skills do not affect the upper management support variables. The implication of the results of the study is that personal technical skills have a significant psychological effect on information system performance. The influence is direct, that is not through mediating variables.

The Education and Training Program has a significant positive influence on user perceptions of information system performance. This research proves that the education and training program influences the upper management support variable, as a mediating variable. The influence of education and training programs on top management support is negative. Negative nature means that the more frequent the implementation of education and information system acquisition, the upper management support will decrease. These results also prove that the upper management support variable is not a mediating variable.

7. RESEARCH LIMITATIONS

This study has limitations in terms of the number of study samples. The research sample amounted to 96 respondents. The number of samples is still very lacking to draw general conclusions. So the research results only apply to the location of this study. Another limitation is the location of the study using several information systems, and research does not focus on specific information systems. This results in system performance not being specifically identified. Research cannot give an idea of the type of information system that has high or low performance.

8. SUGGESTION

The suggestion for the next research is to expand the reach of respondents, not only in one agency. Research can be done in a wider area, for example at the Social Service in the Province. Extending the required area to increase the number of samples. Subsequent research should focus on one of the information systems used by government agencies. So that identification of information system performance is easier to do.
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A Priority Strategy in Developing the Business of Cultivating Egg-Laying Ducks in Indonesia

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Trisniarty Adjeng Moelyatie  
*Muhammadiyah University of Palembang, Indonesia*

Yetty Oktarina  
*University of Baturaja, Indonesia*

**Abstract**

The system of integrating rice farming with fish farming and cultivation of egg-laying ducks becomes one of the farmers' ways in Lebong Regency to suppress weeds and pests invasion and at the same time to increase their income. The development of this system of farming does run well due to the accumulation of external factors and internal factors. The objective of this study is to design a strategy of developing the business of cultivating egg-laying ducks. The research method used is a survey method by interviewing the farmers and the experts. The data obtained are processed by using AHP method to determine the priority strategy of the business of cultivating egg-laying ducks. The results of the study show that the individual semi-intensive strategy becomes the priority strategy for the development of the business of cultivating egg-laying ducks. This strategy can be implemented well through strengthening farmer groups, developing productive businesses based on livestock raw materials and maintaining price stability.

**Keywords**: business strategy, cultivation business development, egg-laying duck

1. **INTRODUCTION**

The area of rice fields in Lebong Regency is 11.208 Ha. The majority of the inhabitants are farmers whose livelihood depends on rice fields. The contribution to the GRDP of the agricultural sector is 79.15 percent, of which the food crop sector contributes 20 percent (Arianti, 2010). The frequency of production of rice in this area is only once a year due to rodent pests and not simultaneous planting season, as in Subdistrict of Bingin Kuning, Central Lebong, North Lebong, and Amen. This condition encourages the community to develop integrated rice farming system with fish farming and egg-laying duck cultivation.
Garut Village in Amen Subdistrict with rice field area of 154.8 hectares became one of the rice field centers that developed this system. Although it is not the primary farming business, the income from fish farming and egg-laying ducks contributes significantly to the farmer's income and nutritional fulfillment of the people (Romdhon, 2016). The productive rice-fish-duck farming system has ecological and economic benefits. Ecologically, it is effective in controlling weeds and various plant disease organisms (PDO). Economically, it increases the farmer's income up to threefold (Ningsih, 2013). This is shown by the average yield of rice production of 7.20 tons/ha/harvest, tilapia of 5.92 tons/ha/harvest and ducks of 244 eggs/ha/harvest, with net profit that can reach Rp. 136,511,328 / year (Septiyani, 2012). Natural resources have not guaranteed the sustainability of egg-laying duck cultivation system since the majority of farmers in Lebong Regency only make egg-laying duck cultivation sector as a sideline business. The guidance and assistance of egg-laying duck cultivation have not been optimal yet that make this system of cultivation business does not develop well. The farmers who joined the farmer group are only 5.7 percent of the 296 farmers who apply this farming system in Garut Village, Amen Subdistrict.

According to David 2012, external and internal factors faced by the actors are very instrumental in business development. External factors include economic and competitiveness (Ningsih, 2013, Purwono, 2009; Tahapary, 2010), social, culture, demography and environment, technology, politics, government and law (Tajerin, 2005; Kurniawan, 2011). Internal factors include local resources (Prasetyo, 2006, Satrio, 2015), management, marketing and distribution (Toledo, 2011), production (Atsary, 2007, Tahapary, 2010), finance, and cooperation (Purwono, 2009). Therefore, it is necessary to design an appropriate strategy for business development through egg-laying duck cultivation system which is integrated with rice field and fish farming.

2. RESEARCH METHODS

This study was conducted in Garut Village, Amen Subdistrict, Lebong Regency. The location of the study was selected purposely because most of the rice fields of 93% cultivated rice field adopting an integrated system of rice farming, egg-laying ducks, and fish farming. The respondents consisted of 40 farmers and expert respondents consisted of 2 academics.

The Analytic Hierarchy Process (AHP) method is used to determine the priority strategy of egg-laying duck cultivation business. The decision-making using this method, according to Marimin (2005) takes into account personal judgment and values in a logical way. The complex and unstructured problems become simple and hierarchical (Kurtilla, 2000; Meser, 2010). The problem of a decision in egg-laying duck cultivation strategy in AHP can be arranged as hierarchical diagram starting from objective, first criterion, subcriteria, and alternative as shown in Figure 1.
The users of this method can provide relative weight values through pairwise comparisons. It is a consistent way to convert pairwise comparisons into a set of numbers indicating the relative priority of each criterion and alternative (Saaty, 1978) as presented in Table I. The value of \( a_{11} \) is the value of the comparison between elements \( A_1 \) (row) to \( A_1 \) (column) that states a relationship of:

a. The level of importance of \( A_1 \) (row) to criterion \( C \) as compared to \( A_1 \) (column), or
b. The level of dominance of \( A_1 \) (row) to \( A_1 \) (column), or
c. The number of properties of criterion \( C \) that exist in \( A_1 \) (row) compared to \( A_1 \) (column). The respondents’ opinions are combined using the geometric mean.

### Table 1. Matched pairwise matrices

<table>
<thead>
<tr>
<th></th>
<th>( A_1 )</th>
<th>( A_2 )</th>
<th>...</th>
<th>( A_n )</th>
</tr>
</thead>
<tbody>
<tr>
<td>( A_1 )</td>
<td>( a_{11} )</td>
<td>( a_{12} )</td>
<td>...</td>
<td>( a_{1n} )</td>
</tr>
<tr>
<td>( A_2 )</td>
<td>( a_{21} )</td>
<td>( a_{22} )</td>
<td>...</td>
<td>( a_{2n} )</td>
</tr>
<tr>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>
| \( A_m \) | \( a_{m1} \) | \( a_{m2} \) | ... | \( a_{mn} \)

*Source: Marimin, 2005. The numerical value of the comparative scale 1 = criterion \( A \) is equally important as \( B \), 3 = \( A \) is slightly more important than \( B \), 5 = \( A \) is obviously more important than \( B \), 9 = \( A \) is absolutely more important than \( B \), and 2,4,6,8 if hesitant between the two adjacent ones.*

### 3. RESULTS AND DISCUSSION

There are 5 (five) criteria underlying the determination of development strategy of duck cultivation business, namely input, cultivation, marketing, income, and support. Each criterion has its subcriteria, namely: eggs, ducklings, capital, feed, buying ducklings, hatching by hens, hatching by machine, customer, cooperation with institutions, competitor, cost, selling price, revenue of duck cultivation, agricultural extension officers, and farmer groups. The result of determining the criteria and subcriteria are presented in Figure 2 (attached). The Weighting of values is performed to select valid and consistent pairwise
comparisons of both criteria and subcriteria. This is indicated by the inconsistency value of a statement given by the expert in the pairwise comparison. The consistency value of pairwise comparison between good criteria is $\leq 0.1$, and the consistency value of pairwise comparison between good subcriteria is also $\leq 0.1$. The values of inconsistencies between criteria and sub-subcriteria are presented in Table 2.

**Table 2.** The inconsistent value of pairwise matrix comparison between criteria and between subcriteria

<table>
<thead>
<tr>
<th>No</th>
<th>Description</th>
<th>Values of Inconsistency</th>
<th>Criteria</th>
<th>Subcriteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Input</td>
<td>0.060</td>
<td>0.04</td>
<td>0.04</td>
</tr>
<tr>
<td></td>
<td>Duckling</td>
<td></td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Egg</td>
<td></td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Capital</td>
<td></td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Feed</td>
<td></td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Cultivation</td>
<td>0.009</td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Buying duckling</td>
<td></td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hatching with hens</td>
<td></td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Hatching with a machine</td>
<td></td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Marketing</td>
<td>0.002</td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Customer</td>
<td></td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cooperation with institutions</td>
<td></td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Competitor</td>
<td></td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Income</td>
<td>0.000</td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cost</td>
<td></td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Selling price</td>
<td></td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Revenue of duck cultivation</td>
<td></td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Support</td>
<td>0.003</td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Agricultural Extension</td>
<td></td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Officers</td>
<td></td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Animal husbandry Department</td>
<td></td>
<td>0.04</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Farmer groups</td>
<td></td>
<td>0.04</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Processed primary data, 2015*

In addition to the consistency of choice, the decision obtained by the AHP method is also highly determined by the weight of the value of each choice of pairwise comparisons. Based on the results of the comparison, the order between the criteria and sub-criteria that have been selected with the weight of each value used in the decision making of alternative strategy selected for the development of cultivation of egg-laying ducks as presented in Table 3.

**Table 3.** Weight Values of Criteria

<table>
<thead>
<tr>
<th>No</th>
<th>Description</th>
<th>Weight Values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Criteria</td>
</tr>
<tr>
<td>A</td>
<td>Input</td>
<td>0.066</td>
</tr>
<tr>
<td></td>
<td>Duckling</td>
<td></td>
</tr>
</tbody>
</table>
The weighting result of the criteria and subcriteria values is presented in Table 3. The highest paired pair weighted value obtained indicates the priority criteria in the development of egg-laying duck cultivation. The highest values of the criteria are consecutive as follows: cultivation, marketing, income, input, and support.

In this cultivation criteria, the subcriteria to buy ducklings has the highest weight value so that it becomes the main priority in the criterion of cultivation for the development of duck breeding business. The cultivation by means of purchasing ducklings encourages farming to be more efficient in terms of time and cost. The supporting criteria have the lowest weight value compared to other criterion weight values. This criterion becomes the last priority to be considered as the strategy of duck cultivation development. In this criterion, the highest subcriteria weight values are consecutive as follows: farmer groups, agricultural extension field officers, and animal husbandry department. The subcriterion of farmer group becomes a priority on supporting criteria in the development of egg-laying duck cultivation. The farmer group is a place to acquire and share knowledge, skills, and technology among farmers. The farmers can also get program assistance from the government or related institutions that require farmers to be in the farmer groups. Based on the results of the assessment of the criteria and subcriteria weighting, the priority strategy for the development of egg-laying duck cultivation in Amen Subdistrict of Lebong Regency is the semi-intensive individual strategy. The priority strategies generated are presented in detail in Table 4.

**Table 4. The Values of Weight of the Alternative Strategies for Developing Egg-Laying Duck Cultivation**

<table>
<thead>
<tr>
<th>No</th>
<th>Alternative Strategy of Cultivation Business</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Semi-intensive individuals</td>
<td>0.565</td>
</tr>
<tr>
<td>2</td>
<td>Intensive individuals...</td>
<td>0.262</td>
</tr>
</tbody>
</table>
This priority strategy is supported by the condition of abundant environmental and natural resources, such as duck feeds in the form of rice bran, residual rice bran after harvesting, river water supply originating from Kerinci Seblat National Park (TNKS), vast rice fields for grazing or duckling. Egg-laying duck cultivation is more optimally managed with the semi-intensive individual. The supporting facts of this statement among others are that the cultivation of intensive individual needs large costs, especially the cost of feed, whereas the majority of farmers in this area consist of farmers with small to medium income. The group business system has not been well adapted by the community, making it the biggest obstacle to its application in the field. The dominance of members with the low level of education of average primary school education may pose a hindrance in the financial management system and group organization. This semi-intensive individual strategy is also believed to indirectly encourage the creation of competition and simultaneously foster mutual cooperation among farmers such as cooperation in hatching duck eggs, and marketing of duck eggs.

**Figure 3:** Hierarchical structure in AHP development strategy of duck breeding business

### 4. CONCLUSION

This research produces four alternative strategies, namely Semi-intensive Individual, Intensive Individual, Semi-intensive grouping, and Intensive grouping. The priority strategy for the development of egg-laying duck farming is the cultivation of egg-laying duck in a
Semi-intensive Individual. The strategy can be successfully implemented through the strengthening of farmer groups, the development of productive businesses based on poultry raw materials and maintaining price stability.

REFERENCES


Nowadays, the understanding of social entrepreneurship is still diverse. This study aims to create a model of social entrepreneurship and the factors shaping it. The results of this study indicated that there was a direct, positive influence of the organizational environment, social environment, individual characteristic, experience, and family demands for entrepreneurship. While the economic environment and education and training had no significant influence on the entrepreneurship. Furthermore, the results of the analysis proved that the organizational environment variables, social environment, economic environment, individual characteristic, education and training, experience, and family demands indirectly influenced the social entrepreneurship through entrepreneurship variables as the intervening variables, except for the economic environment variable. The research method used was Structural Equation Model (SEM). SEM is a multivariate analysis used to analyze the relationships between variables in a complex manner. The sampling technique was carried out by using a non-probabilistic sampling with 320 respondents as the sample. Future researches are suggested to examine the role of government in providing capital, and universities in creating new social entrepreneurs that contribute to the tightening of social problems.

**Keywords:** Entrepreneurship, Social Entrepreneurship, Indonesia
1. INTRODUCTION

Entrepreneurship is an art and science that has contributed greatly to the business world. The traditional theory of entrepreneurship states that entrepreneurship is someone who creates a new business in a risky and uncertain environment for profit purpose (Kirzner, 1973). This traditional theories emphasize entrepreneurship in terms of risk-oriented and individual profit seeking. However, along with developments and changes in the business environment, there is a shift in understanding of entrepreneurship that it does not only emphasize on achieving individual profit, but also focuses on how entrepreneurial activities can contribute socially (Mair and Noboa, 2003).

Prabhu (1999) described social entrepreneurs as people who make or manage innovative entrepreneurial organizations whose main mission is social changes and development of community groups. According to him, social entrepreneurship is the process of construction, evaluation, and the pursuit of opportunities for transformative, energetic and dedicated social changes. According to Sharir and Lerner (2006), social entrepreneurs act as agents of change to create and maintain social values without being limited to the existing resources. The social entrepreneurs aim to create value in the form of transformational changes that will benefit the poor and ultimately, the wider community.

Although social entrepreneurship has many similarities to traditional entrepreneurship - for example, these two forms of entrepreneurship together create a new activity or organization in the social environment - the key differences between these two forms of entrepreneurship: owners or actors of social entrepreneurship are not merely encouraged by the desire to gain profit, but more importantly is the drive to solve social problems in their environment and to create social values. With a focus on social changes and social development, the social entrepreneurs have a significant impact on the society, both socially and economically (Mair and Noboa, 2003). Hibbert et al. (2005) revealed that social entrepreneurship is the use of entrepreneurial behavior which tends to be more oriented to the achievement of social purposes and does not prioritize the profit, or if there is any profit, it is used for social purposes.

The results of the study by Mair and Noboa (2003) showed that the interest in social entrepreneurship came from several factors influencing the entrepreneurial behavior. They added that the model of social entrepreneurship, which was specifically related to the social entrepreneurship intention, was influenced by cognitive factors (character and moral) and individual characteristic factors (emotions and empathy), making the social entrepreneur focuses on helping others. While Mort (2003) revealed that the factors influencing the entrepreneurship were not only limited to individual factors, because they were not enough to picturize the entrepreneurial process as a whole. He also further mentioned that it was because the entrepreneurial activity also involved organizations, economic environment, and social support, resulting in the environmental factors to be external factors which could complement the entrepreneurial activities. The results of Nicholls (2006) study showed that based on the level of organizational, the social entrepreneurship could be seen from two elements. The first was to focus on social mission, which reflected in the context and output of the actions according to the social values showed in the surrounding environment after the organization carried out its activities. The second was the operational process - the approach to action with an 'entrepreneurial' component. These components indicated the individual behavior of an entrepreneur. From the results of these studies, it can be seen that external factors influence entrepreneurship such as: individual characteristicistics, organizational, social, and economic environment also have a relationship with the formation of social entrepreneurship model. Based on these explanations, there is a strong belief that there is a connection between these external factors influencing the formation of social entrepreneurship model.

A previous research by Priyanto (2004) explained that internal factors of entrepreneurship were the aspects that proposed and shaped the spirit of entrepreneurship. Entrepreneurship is basically for everyone because it can be learned. According to Drucker (1996), every person who has the courage to make decisions can learn to become and behave like an entrepreneur. It is because entrepreneurship is more of a behavior than a personality phenomenon, which basically lies in the concepts and theories, not an intuition. Further, according to Hisrich and Peters (1992), the entrepreneurial spirit of a person can be formed through several aspects, including: individual characteristic, education and training, experience, parenting, and family demands. These factors are the internal factors that can also shape the spirit of social entrepreneurship.
Based on the research results explained previously, in a broad outline, it can be concluded that social entrepreneurship is one of the positive ways or alternatives in overcoming various social problems these days. Research studies on social entrepreneurship are interesting, and need to be carried out. However, it has not been discussed on how the entrepreneurship model can be created, the linkages between entrepreneurial variables in general and social entrepreneurship have not yet emerged. Previous researches considered entrepreneurship as a separate part of social entrepreneurship (McMullen, 2011). On the other hand, the results of a study by Estrin et al. (2013) showed that the higher the number of commercial entrepreneurs in a country, the higher the number of social entrepreneurs. Therefore, it can be concluded that there is a link between commercial entrepreneurship and social entrepreneurship.

It is explained formerly that there is an inconsistency in the results between McMullen's (2011) and Estrin et al.'s (2013) studies, which makes it a space for this present study. A question is then followed whether entrepreneurship is related to social entrepreneurship or not. The answer of this question is what this research is about. Thus, the main objective of this study is to understand whether there is a direct link between entrepreneurship and social entrepreneurship. Entrepreneurship will be the antecedent of the social entrepreneurship.

The method that can be used to analyze the Construction of Social Entrepreneurship Model is the Structural Equation Modeling (SEM) method. According to Santoso (2010), SEM analysis is a complex multivariate analysis as it involves a number of interconnected independent and dependent variables to form a model. However, it cannot simply be concluded that there is a dependent and independent variable in SEM because an independent variable can be dependent on another relationship.

2. LITERATURE REVIEW AND HYPOTHESIS DEVELOPMENT

Entrepreneurship

Entrepreneurship is considered as a spirit, ability, attitude, individual behavior in handling business or activities that lead to efforts to find, create, and implement work methods, technology and new products by increasing efficiency in order to provide better services and or gain greater profits (Drucker, 1996; Siagian and Ashafani, 1995; Riyanti, 2003). Based on this definition, it indicates that entrepreneurship is the ability to create something new and different through creative thinking and innovative action to create opportunities in facing life's challenges. This ability is based on the nature, characteristics, and character of someone who has the will to realize the innovative ideas into the real world creatively. It is a process of identifying, developing, and bringing visions into life. This vision can be in the form of innovative ideas, opportunities, and better ways of doing things. The final result of the process is the creation of new businesses formed in conditions of risks or uncertainties.

External Factors of Entrepreneurship

Organizational Environment

Organizational environment refers to the result of actions in an organizational climate that can influence the behavior of its members (Wijono, 2005). Someone who lives and is raised in a conducive and challenging, open and flexible organizational environment will be a successful entrepreneur who has a large motivation, is independent and responsive to risks.

Social Environment

Social environment refers to a social climate exists around individual groups and is based on mutually agreed upon personal values (Reppeti, 2007). Social factors (such as network and support from the socio-political elite), economic factors (such as the availability of capital, aggregate indicators, recession and unemployment), political conditions (such as support from other institutions, regulations) and infrastructure factors (such as the education system, labor market, access to information and availability of assets) will greatly influences one's intentionality and decision making in conducting business activities (Mazzarol et al., 1999).
Economic Environment

Economic environment refers to an economic condition in an organizational environment. High unemployment is one of the factors that influence a person to create his own employment by becoming entrepreneurs (Sadoulet and Janvry, 1995). The level of economic growth of a country also determines the development of entrepreneurship (Kadarsih, 2013).

Internal Factors of Entrepreneurship

Individual Characteristic

Individual characteristic refers to a tendency that characterizes individuals, which distinguishes an individual from other individuals and becomes the basis for behavior (Crant, 2000). The character of entrepreneurs can be seen based on six characteristics of entrepreneurs, namely confidence, task and results-oriented, courage to take risks, leadership, originality, future-oriented, and that the characteristics of entrepreneurs and the aspects of entrepreneurship are equivalent (Meredith et al., 1996).

Education and Training

A person's entrepreneurial spirit can be formed through several aspects, and some of them are through education and work history (Hisrich and Peters, 1992). The only battle to make humans with moral, attitude and entrepreneurial skills is through education. Education gives many insights for individuals to be more confident; able to choose and make right decisions; increase creativity and innovation; foster moral, character, and intellectual; and improve the quality of other human resources, so that they are finally able to stand on their feet (Soemanto, 2002).

Experience

Learning experience refers to an interaction, between those who learn with their environment, where they can react to stimuli they receive (Soekanto, 1986). Someone's experience will contribute to their interests and hopes to learn more. Based on the organizational context, work experience of employees in carrying out tasks in an organization plays a very important role (Dahama and Bhatnagar, 1980).

Family Demands

Family demands play a significant role in job selection, although this is also, sometimes, not realized by the respective individual (Mustofa, 1996). It can be a driving force for individuals to do their jobs including entrepreneurship (Greenhaus and Singh, 2003).

Social Entrepreneurship

Social entrepreneurship refers to an effort to create innovative solutions to overcome urgent social problems by working on the ideas, capacity, resources, and social agreements, so that sustainable social change can occur (Alvord et al., 2004; Bornstein, 2004; Bornstein, 2004; Thompson et al., 2000).

Hypothesis Development

The Influence of Environment towards Entrepreneurship

Organizational environment refers to the result of actions in an organizational climate that can influence the behavior of its members (Wijono, 2005). Someone who lives and is raised in a conducive and challenging, open and flexible organizational environment will be a successful entrepreneur who has a large motivation, is independent and responsive to risks. The strategies and plans implemented, existing financial resources, industry sector and business format will influence one's entrepreneurial behavior (Watson and Scott, 1988). In addition, social environment is a social climate exists around individual groups and is based on agreed personal values (Reppeti, 2007). Lambing and Kuehl (2000) stated that a person's level of entrepreneurship varies greatly according to the culture in which he has a social environment. Meanwhile, the economic environment refers to the
economic conditions within the organizational environment (Sadoulet and Janvry, 1995). As stated by Kadarsih (2013), the level of economic growth of a country also determines the development of entrepreneurship. Individual characteristics are the tendencies that characterize individuals who differentiate them from other individuals and become the basis of behavior (Crant, 2000). Meredith et al. (1996) compiled the entrepreneurial characteristics based on six entrepreneurial characteristics and stated that entrepreneurial characteristics with entrepreneurial aspects were equivalent. According to Hisrich and Peters (1992), a person's entrepreneurial spirit can be formed through several aspects, such as through education, and work history. Training is a learning process which utilizes several methodological techniques to improve skills and abilities of one's job (Nasution, 2003). The importance of education in fostering the spirit of entrepreneurship is also stated by Zimmerer (2002). Dahama and Bhatnagar (1980) explained that a person's experience will contribute to his interests and hopes to learn more. Alwi (2001) also added that experience is the level of mastery of a person's knowledge and skills which can be measured from a person's work period. Likewise, in the context of entrepreneurship, the more entrepreneurial experiences a person has, the better the person will be to master his work, resulting him to finish his job well. Finally, the last is variable family demands. According to Mustofa (1996), family demands play a significant role in job selection, although this is also, sometimes, not realized by the respective individuals. Further, the entrepreneurial behavior of street vendors were highly related to family demand factors. Family demands are the amount of energy, time, and roles needed to handle the fulfillment of household needs and tasks (Greenhaus and Singh, 2003). Family demands can be a driver for individuals to do their jobs including entrepreneurship. From the description above, it can be explained that these factors can influence entrepreneurship.

Hypothesis 1: Organizational, social, and economic environment, individual characteristic, education and training, experience, and family demands influence entrepreneurship.

The Influence of Environment towards Social Entrepreneurship

According to the definition, social entrepreneurship refers to a social innovation that aims to create social value generated through a collaboration of a group of people and organizations from a social environment that influences a social entrepreneurship (Hubbard, 2010). Experts in social entrepreneurship, Dees (1998), stated that social entrepreneurship is a combination of great enthusiasm in social mission with discipline, innovation, and determination as what customary in the business world is. Furthermore, Dees (1998) explained that social entrepreneurship is the use of innovation to create an economic activity that has social values from a combination of resources to get the opportunities by leading to the formation of organizations and or practices produced and making social changes, resulting it to be impossible to be separated from the activities in the economic environment. According to Prieto (2011), individual characteristics can be a determinant of social entrepreneurial intention in a person. Hisrich and Peters (1992) suggested that the external and internal factors include organizational environment, social environment, economic environment, individual characteristic, education and training, experience, and family demands that shape entrepreneurship. This is also in line with Hulgard's (2010) opinion that there is a link between entrepreneurship and social entrepreneurship. Therefore, a hypothesis that can be proposed is as follows:

Hypothesis 2: Organizational environment, organizational environment variables, economic environment variables, individual characteristic, education and training, experience, and family demands influence social entrepreneurship.

The Influence of Entrepreneurship towards Social Entrepreneurship

Entrepreneurship as a basic concept can be considered as an intervening variable between the influence of external and internal factors on social entrepreneurship. This is supported by the research conducted by McMullen (2011) that previous researches looked at entrepreneurship as an integral part of social entrepreneurship.
Hypothesis 3: Entrepreneurship influences social entrepreneurship.

The Influence of External and Internal Environment towards Social Entrepreneurship with Entrepreneurship as an Intervening Variable

Estrin et al. (2013) stated that the higher the number of commercial entrepreneurs in a country, the higher the number of social entrepreneurs. In addition, she also explained that social entrepreneurship is such an effort to create "Social Wealth", so that there is a strong attachment between the social entrepreneurial actors and the community groups assisted. According to Alvord (2002), the intention of social entrepreneurship may come from business entrepreneurial activities, ideas for creating social values and benefits, identifying social problems, or creating activities that can contribute to a social environment which may come from one person. However, to implement it, it still requires resources, volunteers, government support, and donations.

Hypothesis 4: Organizational environment, social environment, economic environment, individual characteristic, education and training, experience, and family demands influence social entrepreneurship with entrepreneurship as an intervening variable.

3. MEASUREMENT OF VARIABLES

The variables used in the study are divided into latent variables and empirical indicators which can be seen in Table 1.

<table>
<thead>
<tr>
<th>Table 1. Latent Variables and Empirical Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>Latent Variables</td>
</tr>
<tr>
<td>------------------</td>
</tr>
</tbody>
</table>
| **Organizational Environment (X1)** | 1. Involvement in a decision-making process (X1.1)  
2. Trust (X1.2)  
3. Cooperation (X1.3)  
4. Attitude in dealing and resolving problems (X1.4)  
5. Leader feedback (X1.5)  
6. Performance evaluation (X1.6) |
| **Social Environment (X2)** | 1. Acceptable values (X2.1)  
2. Networking (X2.2)  
3. Culture (X2.3)  
4. Lifestyle (X2.4)  
5. Social class (X2.5)  
6. Applicable laws (X2.6) |
| **Economic Environment (X3)** | 1. Unemployment rate (X3.1)  
2. Availability of capital (X3.2)  
3. Interest rate (X3.3)  
4. Availability of inputs / raw materials (X3.4)  
5. Economic growth rate (X3.5) |
| **Individual characteristic (X4)** | 1. Confidence (X4.1)  
2. Tenacity (X4.2)  
3. Leadership (X4.3)  
4. Originality (X4.4)  
5. Future-oriented (X4.5) |
| **Education and Training (X5)** | 1. Increased knowledge (X5.1)  
2. Improved individual skills along with technological development (X5.2)  
3. Ability to solve operational problems (X5.3)  
4. Stimulating accuracy of decision-making (X5.4)  
5. Increased workability (X5.5) |
| **Experience (X6)** | 1. Length of time of entrepreneurship (X6.1) |
2. Level of knowledge owned (X6.2)  
3. Level of technical skills and abilities, to assess the abilities in technical works implementation (X6.3)  
4. Able to face difficulties at work (X6.4)  
5. Able to manage the conflicts at work (X6.5)  

| Family Demands (X7) | 1. Number of dependent family members (X7.1)  
2. Composition of family members (X7.2)  
3. Meeting the economic needs of the family (X7.3)  
4. Family time demands (X7.4)  
5. Attention and encouragement from the family (X7.5) |
|---------------------|--------------------------------------------------|
| Entrepreneurship (Y1) | 1. Risk taking (Y1.1)  
2. Taking advantage of opportunities (Y1.2)  
3. Creating a new business (Y1.3)  
4. Creative (Y1.4)  
5. Innovative approach (Y1.5)  
6. Independent (Y1.6) |
| Social Entrepreneurship (Y2) | 1. Creating social value (Y2.1)  
2. Making social changes (Y2.2)  
3. Economic activity (Y2.3)  
4. Community empowerment (Y2.4)  
5. Resource mobilization (Y2.5) |

Source: the authors

4. RESEARCH METHOD

The use of SEM as a form of analysis tool, besides being based on the reasons for the complexity of the model used, is also based on the limitations of multidimensional analysis tools used in quantitative research, such as multiple regression, factor analysis, discriminant analysts and others. SEM examines a series of interdependent relationships between variables simultaneously. This technique is especially useful when the independent variables are in the next equation. In SEM, researchers can carry out three activities simultaneously, namely examining the validity and reliability of the instrument, obtaining a relationship model that is useful for estimation (Solimun, 2002). The population of this study were 1570 people. The sample used includes 320 respondents. The population was taken from the beneficiaries of social entrepreneurial benefits.

Data Analysis and Findings

Data Analysis

The overall results of the questionnaire are more than 0.1156. Therefore, a valid questionnaire could be based on the significance value of $r_{count} > r_{table}$. This resulted in the valid questions which could be used for analysis. Further, the results of the analysis showed that the reliability test value is more than 0.60 for all variables studied.

Model and SEM Equation Conversion

Confirmatory factor analysis (CFA) examined whether the actions of the construct are consistent with a researcher's understanding of the nature of the construct or factor. Thus, the purpose of confirmatory factor analysis was to examine whether the data could be used in tothesis measurement model (Harrington, 2009).
SEM Assumption Test

Outliers Test

The examination of multivariate outliers was carried out by using the Mahalanobis criteria at the level of $p < 0.001$. Mahalanobis distance ($Md$) was evaluated using $\chi^2$ at the free degree of the number of parameters in the model used, namely 1065 where the statistical table is 990.24. The decision-making rules are: if the $Md$ from the observation point is $> 990.24$, then it shows that the observation point is an outlier, whereas if the $Md$ from the observation point is $< 990.24$, then it shows that the observation point is not an outlier. Based on the Mahalanobis distance table, it can be seen that the observation point has an $Md$ value between 61.672 to 205.233 for which all of these values are smaller than 990.24. Therefore, it could be concluded that all observation points were not outliers. Thus, the assumption of outliers was fulfilled.

Normality Test

AMOS output shows that the CR Multivariate Normality value of 95.079 is greater than the required value of 1.96. Thus, the assumption of normality had not been fulfilled. However, based on the central limit argument, if the sample was larger, the statistics will be normally distributed. With a sample size of 100, the data was considered to fulfill the central limit argument. Therefore, the assumption of normality of data was not critical and could be ignored. After the structural model was made, the next step was to test it. The goodness of fit test must be done to ensure that the structured model prepared could explain the direction of the relationship and the influences appropriately and did not cause estimation biases. The result can be seen in Table 2.

Table 2. Result of Overall Goodness of Fit Test

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Cut-off value</th>
<th>Result</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chi Square</td>
<td>Small</td>
<td>2906.225</td>
<td>Not Fit</td>
</tr>
<tr>
<td>p-value</td>
<td>$&lt; 0.05$</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>CMIN/DF</td>
<td>$\leq 2.00$</td>
<td>1.729</td>
<td>Good Fit</td>
</tr>
</tbody>
</table>
The results of the overall goodness of fit, based on the figure and the table, it shows that the 2 criteria, namely CMIN / DF, RMSEA, show good models. According to Solimun (2002), the best criteria used as an indication of the goodness of fit of the model was the value of Chi Square / DF to be less than 2, and RMSEA to be below 0.08. In this study, the value of the CMIN / DF and RMSEA have met the cut-off value. Therefore, the SEM model in this study is suitable and feasible to use which also result in further interpretation for further discussion. According to Ghozali (2005), if two or more of the entire GOF used have shown a good fit, the model is considered good.

**Analysis of The Influence of Entrepreneurship towards Social Entrepreneurship**

The structural model presents the relationship between the research variables. The structural model coefficient shows the relationship between variables. There is a significant influence if the P-value is < 0.05. In the SEM, there are two influences which are direct and indirect influences. The following figure is the results of the analysis of direct and indirect influence.

![Figure 2. The Full structural equation model](source)

**Notes:**
- KWR: Entrepreneurship (E)
- KWRS: Social Entrepreneurship (SE)
- Lingk Org: Organizational Environment (OE)
- Lingk Sos: Social Environment (SoSE)
- Lingk Ekon: Economic Environment (EcoE)
- Karakt Individu: Individual Characteristic (IC)
- DikLat: Education and Training (ET)
- Penglmn: Experience (Ex)
- Tunt Kelurg: Family Demands (FD)
Based on the results of the indirect influence of social entrepreneurship, it shows that it is not significant. It indicated that the entrepreneurship variable was not the intervening variable. This described what McMullen (2011) stated that previous researches looked at entrepreneurship as a separate part of social entrepreneurship. In accordance with the description, this research was done as an attempt to conduct an in-depth study of how to build a social entrepreneurship model. The results of the research conducted had answered the research problem significantly. Based on the analysis, the second and third model could be proposed where the second model would examine the influence of the external environment on social entrepreneurship, and the third model would examine the influence of the external environment on social entrepreneurship by mediating the entrepreneurship variables as the intervening variables. The second model results are the direct influence of external and internal variables which include organizational environment variables, social environment, economic environment, individual characteristic, education and training, experience, and family demands influencing the social entrepreneurship, except the organizational environment. Then, the third step was to examine the influence of the organizational environment, social environment, economic environment, individual characteristic, education and training, experience, and family demands toward the social entrepreneurship with the entrepreneurship variables as intervening variables. The direct influence of entrepreneurship on social entrepreneurship which shows that the influence of entrepreneurial relations on social entrepreneurship is significant and positive. The results of this study are supported by the results of the study by Estrin et al. (2013) which showed that the higher the number of commercial entrepreneurs in a country, the higher the number of social entrepreneurs. Therefore, it could be concluded that there was a link between entrepreneurship and social entrepreneurship. Furthermore, based on the results of the analysis of the indirect influences of organizational environment variable, social environment, economic environment, individual characteristic, education and training, experience, and family demands on social entrepreneurship with entrepreneurship variables as the intervening variables, it shows that it has a significant influence, except economic environment variables. Based on the analysis of direct and indirect influences, the empirical model as the third model shows that the entrepreneurship variable was able to function as an intervening variable that mediates the relationship of independent variables with the social entrepreneurship. Likewise, based on the SEM analysis, the independent variable had an influence on social entrepreneurship, with the entrepreneurship variable as the intervening variable. However, there was one economic environment variable that did not have a significant influence on the variables of social entrepreneurship. Further, the third model shows that the influence of entrepreneurship variable on the social entrepreneurship is significant. This had answered the research gap of this research. It claims that there are inconsistencies between the research results by McMullen (2011) and Estrin et al. (2013). This was also in line with the opinion of Peredo and McLean (2006) explaining that social entrepreneurship is formed when individuals or groups of people: (1) aim to create social value, either exclusively or at least in some acceptable ways; (2) demonstrate the capacity to recognize and take advantage of opportunities to create values; (3) create innovation, starting from direct discovery or by adapting ways to create and / or distribute social values; (4) willing to accept the level of risk above the average in creating and spreading social values. The results of the study by Estrin et al (2013) showed that the higher the number of commercial entrepreneurs in a country, the higher the number of social entrepreneurs would be.

5. CONCLUSIONS

First, based on the results of the Social Entrepreneurship model analysis, it was found that the direct influence of the organizational environment, social environment, individual characteristic, experience, and family demands was significant and positive towards entrepreneurship, while the economic environment and training education had no significant influence on entrepreneurship. The results of the analysis also showed that all variables had a direct influence on social entrepreneurship, except for the organizational environment variables. Second, based on the results of the analysis, all variables did not have an indirect influence on social entrepreneurship. Third, based on the second model of Social Entrepreneurship, the analysis revealed that organizational environment variables,
social environment, economic environment, individual characteristic, education and training, experience, and family demands indirectly influenced the social entrepreneurship with entrepreneurship as the intervening variable, except the economic environment variable.

Future researches can be developed by adding models of industrial factors other than agricultural and educational factors. The role of government in this study has also not been analyzed in the model, although theoretically it is alluded to. The government plays a role in correcting through various policies and institutions. Future researches can also develop models which add governmental factors. It can be done by comparing government policies in the agricultural, industrial, and education sectors or by using secondary data in a longer period.

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Increasing Public Awareness on Climate Change: Integrating Intelligence Analytics to Edge Devices in Industry 4.0

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**Abstract**

Rapid growth of Big Data and Internet of Things (IoT) provides promising potentials to the advancements of methods and applications in increasing public awareness on climate change. The fundamental principle behind this method is to provide quantifiable calculation approach on several major factors that affect climate change, where one of the most well-known factors is the Greenhouse Gases (GHG) with CO2, methane, and nitrous oxide as major contributors. By utilizing Big Data and IoT, an approximate release of GHG can be calculated and embedded inside common household devices such as thermostats, water/heat/electricity/gas meter. An example is the CO2 released by a cubic of water. By using reverse calculation, an approximate CO2 release can be sequentially retrieved as follows: (1) water meter measures consumption, (2) calculate hp and kWh of pump used to supply one m3 of water, (3) calculate the amount of fossil fuel needed to produce one kWh, and (4) calculate CO2 released to the atmosphere from burning of fossil fuel per metric tons/barrel. Such analytical approaches are then embedded on household devices by providing updated information on GHG produced by hourly/daily/weekly/monthly energy usage, hence educating the public and increasing their awareness of climate change. This approach can be developed to provide an alarm of percentage of GHG released to the atmosphere by the excessive use of electricity/water/gas. Further actions in order to influence socio-economic function can later be established such as by establishing a rewards program by the government for people who can successfully manage their GHG emission.

**Keywords:** climate change, public awareness, data analytics, intelligence edge devices
1. INTRODUCTION

Many studies have discussed public perception related to the issue of climate change (see for example Berk & Schulman, 1995, O’Connor et al., 1999, Leiserowitz, 2006). Public concern about climate change is also claimed to have increased over the past two decades especially since 2003 (Thompson & Rayner, 1998, DEFRA, 2002, Globe Scan, 2006). However, the increase in public concern is not followed by the rising in “behavioral” response to climate change due to “value-action” or “attitude-behavior” gap (Blake, 1999, Kollmuss & Agyeman, 2002, Eiser, 1994, Ungar, 1994).

Further action is required to eliminate the disparity between public concern of climate change and the behavioral response since it is urgently needed to accelerate reduction of climate change impact. Moreover, the last United Nations Convention 2015 in Paris, France showed that tangible actions required in reducing climate change impact within next few decades. The convention also targeted to limit the temperature increase to only 1.5 °C, where it will require zero emissions sometime between 2030 and 2050 (Sutter & Berlinger, 2015).

This paper aims to illuminate, conceptually, the ways in which public behavior in reducing climate change can be developed in the Industry 4.0 era. Principally, the proposed method is by bringing analytical intelligence to edge devices, e.g., thermostat, water, electricity, gas, heat meters, to approximate GHG released to the atmosphere.

2. LITERATURE REVIEW

This section discusses the trends of public behavior towards climate change, industry 4.0, and rationale for the approximation method in calculating GHG emission using edge devices. The following subsections will discuss each of the three-rationale mentioned above.

Industry 4.0

Currently, the globalized society lives in the period where digital disruptions are breathed almost in every part of their lives. From bookstore to e-book, record store to streaming, yellow pages to marketplace, and conventional taxi to ride-sharing. This era is now commonly known as the Industry 4.0, an era where market interactions focus on the electrification, digitization, and automation (Norbury, 2015).

Commoditization in various sectors can now be seen and change the landscape of the industry (Ernst & Young, 2014). Airbnb, Spotify, Rakuten, Jenius, Line Today, are the examples of how the traditional ways of consuming commodities are changed, e.g., hospitality, music, retail, banking, news. Energy is not without any exception. We are also facing the Energy 4.0, where energy systems are digitalized. This may include the phases in which actors in the energy ecosystems may generate, deliver, and capture value from the energy-related activities.

Industry 4.0 underpin one essential element: advanced technological and physical integration. Thus, for the concept to work, it requires ‘enablers’ to activate such digitized systems. Sensors, computing power, storage capacities, data analytics, and networking are some examples of the enablers that are keys to the two buzzwords.

Thus, having discussed the Industry 4.0 era where everything is digitalized, automated, and electrified, it becomes the underlying motivation as to how actors in the energy ecosystems may interact to resolve the problems regarding public behavior towards climate change. The next section will discuss the public behavior towards climate change in a greater detail.
Trends of Public Behavior towards Climate Change

With the emergence of Kyoto Protocol, climate change is receiving wide recognition from global community (Lorenzoni, 2007). Scientific evidences show significant human contribution towards changing the world’s climate (IPCC, 2001, 2007). However, this growing attention to climate change is not followed by willingness to alter behaviors in relation to climate change. According to Lorenzoni (2007), in relation to behavioral changes, most of the literature on public understanding of climate change focuses predominantly on energy reduction actions irrespective of the motives underlying these. For example, UK as one of the leading country in moving towards cleaner energy, found that of the minority of people who conserve energy, mostly the motive behind is for financial and health reasons rather than for environmental ones (DEFRA, 2002).

On another note, it is known that nowadays various smart home energy management devices are sold in the market (e.g. thermostat, heat & cold system controller, etc.). Many of them is also ready to connect to the internet integrated with other home management system such as key remote control, CCTV, etc. supported by rapid growth in Internet of Things (IoT) and Big Data.

Based on these conditions, we find a gap between growing concern of climate change impact and daily practical use of energy management system. If we talk about energy management, it is not straight forward related to reducing GHG emission. Several steps are needed to correlate energy management with climate change reduction such as how much GHG is reduced when saving several amount of energy? Or how much have we contributed in reducing GHG by consistently saving energy? This will be discussed further in this paper on how to close the gap by enhancing the use of smart home energy management devices to later affect publics to engage to the reduction of climate change which is not only limited to understanding on how to reduce but also in terms of cognition, affect and behavior. In other words, it will not be enough for a person to know and understand about climate change in order to be engaged but they also need to contemplate deeper and care about it, be motivated and able to take action.

3. RESEARCH METHOD

Approximation Method in Calculating ghg Emission using Edge Devices

The principal factors in determining the GHG emissions from a fossil fuel power plant are the type of technology, choice of fuel, and thermal efficiency (Weisser, 2007). The GHG emissions from a particular fossil fuel technology depend on the mode of operation, e.g., peak load management, baseload supply, combined heat and power supply (Spadaro et al., 2000, Dones et al., 2005). The direct energy-related GHG emissions can be estimated based upon IPCC national GHG inventory guidelines (IPCC, 2006). The global warming potential of GHG including carbon dioxide, methane, nitrous oxide and several other gases, is usually expressed in terms of carbon dioxide equivalents, CO2e (Liu et al., 2012).

Figure 1 depicts several fossil fuels power plant technology and resulted direct GHG emission/kWh: pulverized fuel (1), fluidized bed combustion (2), integrated coal gasification combined cycle (3), steam turbine condensing (4), and combined cycle gas turbine (5) (IEA, 2005).

It can be seen that each technology has scattered value of direct GHG emission/kWh, unless for steam turbine condensing (4). Due to differences of GHG emission/kWh resulted by a particular mode of operation of a fossil fuel power plant in each region of each country, an empirical equation and data are considered to be the most feasible approach. This is where the importance of the IoT takes place. The information exchange of updated empirical data is
expected to rapidly fine-tune the GHG emission calculation thus improve the calculation result on the edge devices.

The simplified approximate equation to calculate GHG emission used in this research is expressed in Eq. (1) as follows:

$$E_{Total} = \sum_{t=0}^{t+\Delta t} X(t) \ast C_f \ast P_f$$  \hspace{1cm} (1)

Where $E_{Total}$ is the Total Emission within a certain period, $X(t)$ is the main variable measured by the edge device (e.g. volume in m$^3$ for water/gas meter, rated power in kWh for electricity meter, and temperature differences $\Delta T$ for heat meter/thermostat), $C_f$ is the Conversion Factor to convert emission in GHG/kWh, and $P_f$ is Power Factor in terms of kWh where the value is equal to 1 for electricity meter. The value of $C_f$ and $P_f$ needs to be adjusted with local condition of power plant and periodically updated to ensure reliability of calculation.

**System Architectural Design**

In order to provide a reliable approximation of GHG release from the edge devices, the parameters from Eq. (1) needs to be updated periodically. Figure 2 shows the system architecture to set up an environment and chain link to keep updates on variables as mentioned above.

Nowadays, home devices can more reliably connect to the internet thanks to various communication protocol options. Many communication modules have now been developed to support IoT infrastructure, Smart City, and Remote Automation such as Wi-SUN, XBee ZigBee, LoRa, SigFox, and other RF Mesh or Low Power Wide Area Network (LPWAN). Based on Figure 2, several mixed networking options can be delivered. The LPWAN communication protocol can be used to reach outdoor gateway for outdoor use purpose such as water/gas/electricity meter. On the other hand, indoor home devices such as a thermostat or heat meters can be connected to the indoor/home Wi-Fi router. Nevertheless, those options can be exchanged and mixed one with another depending on site feasibility. By using this approach, the edge device is expected to be able to perform the reliable approximate calculation of GHG release based on parameter counted as explained in Eq. (1).

4. **EXPECTED IMPLICATION**

**Theoretical Implication**

The approximation method explained in this study is aimed to equip household devices that people meet on a daily basis with a feature that will influence public opinion and behavior in using water and energy in its relation to climate change. These devices are expected to give more information and alert related to GHG emission resulted by energy usage of each household instead of only displaying kWh or m$^3$. Some critical features required are the calculation of GHG emission resulted by the amount of kWh or m$^3$ used, visualization of data in attracting people to see and learn about the data, alarm as well as setup of a threshold value for the alert. These features are designed for GHG management performed by each household.

Discussing about feasibility and readiness of technology to accommodate requirements of the approximation method, current technology is already mature and can be considered to have no technical issues. The availability of low power electronics module, long life lithium battery, reliable internet connectivity through various modes, Low Power Wide Area Network etc. have never been like ever before where the resources and alternatives are also abundant.

Many various producers of smart home energy management have already had the infrastructure to support internet connectivity. Let’s say Schneider Electric, Honeywell and
ABB with its Smart Home products that have reached the edge devices to reliably connect to the internet through home wi-fi. Other manufacturer that focus on utilities such as Itron is able to provide outdoor connectivity through RF Mesh. Meanwhile IoT connectivity solution provider such as Semtech are able to support network connectivity using LPWAN. Several researches on smart home energy management systems have also been published (Niyato et al., 2011; Hu & Li, 2013; Han et al., 2015; Zhou et al., 2016).

**Practical Implication**

Besides technical aspects to support direct implication, the government is also encouraged to initiate programs for GHG management. As an example, a program can be initiated by Ministry of Energy by collaborating with local utilities company to give rewards or discounted kWh for those who can constantly manage GHG below certain threshold level. Other programs can also be established such as organizing annual or quarter competition event between districts region to find the best district community who can manage their GHG level.

This type of program is expected to be able to penetrate deeper into the public’s behavioral response related to climate change reduction. Such program is also intended to create supporting ecosystem between societies and government to produce consistent GHG Management towards sustainable energy management. Furthermore, based on data managed by this GHG Emission system provided by the edge devices, the government will be able to use the data to regularly monitor changes of GHG emission level in each territory to further taking action if necessary.

5. **CONCLUSION**

In conclusion, this research is an initiation for further penetration targeting people’s behavioral changes to translate knowledge and awareness about climate change into tangible actions. In order to make people more attached to climate change, a method has been developed by embedding analytical intelligence of GHG approximation into household devices such as thermostat and water/electricity/gas/heat meter. This approach is expected to establish closer and more blended environment, so people can measure, estimate and manage the level of GHG released from their activities.

Current research is widely open for further development to fine-tune the analytical model of GHG to provide more accurate and actual approach of GHG emission level. The expected result might lead to a new generation of “meter/sensor” that is able to accurately produce an approximation of GHG emission by employing a mix of Machine Learning, Artificial Intelligence, IoT, and Big Data.

Meanwhile, looking from business perspective, there are still challenges to overcome. One of the main challenges is current cost of development which leads to high cost/unit of the device due to recent development of this method. Although current household devices are ready to be connected to the internet, some features and electronic modules still need to be developed and embedded into these devices. The “Time to Market” and simultaneous emergence of regulation and urgent needs between countries are needed to press the cost of development and production.

**REFERENCES**


**APPENDIX**

**Figure 1:** Direct GHG emission/kwh vs. Technology type of fossil fuels power plant (Iea, 2005)

**Figure 2:** System architecture
Analysis of Road Map E-Commerce Policy in Feminism Perspective: An Effort to Empower the Rural Women as the Strategy to Enhance the Indonesian Digital Economy Vision 2020

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Abstract

The purpose of this paper is to observe the challenges and opportunities of Indonesian digital economy by seeing it through the lens of gender perspective in order to analyse the role and potency of Indonesian’s rural women to contribute to the wheel of Indonesian economy. This paper also analyse the Road Map e-Commerce from Indonesian government policy regarding the involvement of rural women in digital economy. By using the method of collecting the secondary data and reviewing the theory from the experts of Economy and International Relations, this paper uses the concept of feminism as the main concept to analyse the problem along with using the concept of Women in Development approach as main concept to the solution. This paper conclude that the rural women empowerment has huge potential to open the market of e-commerce in rural area and can become one of the main contributions to fulfill the need of human resources in STEM sector (Science, Technology, Engineering, Mathematics) to support Indonesia in digital economy industry. This paper also found that the lack of effort to optimize the gender equality in Road Map e-Commerce policy has made rural women as the performers of E-commerce are yet to be maximized in which the market of e-commerce in rural area are rarely found in Indonesia. This paper recommends that there is a need to implement Digital Inclusion Policy in the strategy of Road Map e-Commerce to integrate it with gender perspective for the betterment of policies in digital economy in Indonesia.

Keywords: digital economy vision 2020, rural women empowerment, women in development approach, road map e-commerce
1. INTRODUCTION

Over the time, the development of Information and Communication Technology (ICTs) has rapidly increased in this era. Moreover, this development is a sign of progress of the upcoming Industrial Revolution 4.0 that will face the global community in a whole. According to Miragliotta, Industrial revolution 4.0 refers to the use of communication tool in digital basis through internet that encompasses every human activity.\(^1\) The shift toward the digital era has increasingly create significant effect toward the communities particularly in the economy, in which, has created a term in economy called as digital economy. Tapscott as the first person to found this concept define Digital Economy as “economic system that has characteristics as intelligent space, including information along with its instrument access”.\(^2\) Moreover, Tapscott claimed that digitalization has changed our mindset in dealing with business. Consequently, the widening sector of digital has become a main motivation for the economic growth in recent years simply because this kind of economy are capable to offer a more competitive price, cheaper production cost, easier operation control, and less significant risk.\(^3\)

Indonesia obviously does not want to left behind from this economic digital trend that has spread throughout the modern world. Therefore, the government established the vision as to become the country with biggest digital economy development in ASEAN region in 2020.\(^4\) The seriousness of government to lead this digital economy is not just a discourse. Indonesian government finally issued Indonesia’s e-commerce Road Map through Presidential Regulation No. 74 of 2017 on E-Commerce Road Map for the Year of 2017-2019. This E-Commerce Road Map is created to provide direction and strategic guidance to digital-based economy that has high economic potential for Indonesia\(^5\)

In accordance with policy above, it is important to keep in mind that Indonesia has ratified United Nations’ resolution related to 2030 Agenda for Sustainable Development Goals as an actor who actively role in implementing the global programs. Thus, in its development towards the vision of the digital economy 2020, Indonesia should consider the fifth objective of Sustainable Development, which contributes fully in achieving gender equality towards inclusive development.\(^6\)

Unfortunately, in its process of inclusiveness, there are still gaps between genders especially in the economy and employment. The facts prove that male and female labour force participation ranges from 51% in women and 82% in men in 2017.\(^7\) This shows that

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\(^1\) Giovanni Miragliotta. 2012. *Internet of Things: Smart Present or Smart Future?* Italy.
\(^5\) Ibid.
despite the existence of digital economic trends that open up opportunities for new jobs, the ratio of labour figures gender still shows inequality. Moreover, in economic terms, the 2016 World Economic Forum's report on the Gender Gap Index shows that of the 144 countries surveyed, Indonesia ranks 88 with a score of 0.682.8

If in the general, men and women are still having an issue with the gender gap, then it can be concluded that the rural women are high likely to become a group that are marginalized in terms of economic and employment. Board Indonesia Coalition Business for Women Empowerment (IBCWE) in 2017 mentioned that the level of economic participation for women is still relatively low at only 15-25%. Particularly in rural areas, from the total productive ages of rural women, only 38.62% of women have a job, 37.8% became housewives and 6.34% unemployed.9 This then becomes a big problem considering that this gender inequality has a big effect on the country's economic growth, especially with the high enthusiasm of the government towards digital economy which unfortunately is not followed by the increasing spirit of gender equality in Indonesia. As a result, the growth of the digital economy is increasing rapidly but the economic development of rural women is getting left behind because they cannot adapt to the rapid changes to the economic trend of Indonesia.

Nonetheless, aforementioned issue above cannot be separated from the fact that there is still a strong patriarchal that do not allow rural women from actively take a part in the economic field. It is not surprising that the founder of National Commission on the Elimination of Violence against Women (Komnas Perempuan), Saparinah Sadli, stated that "equality for women has not been fully achieved, as there are still many rural women bound by custom”.10 From that statement, it can be said that productive women in rural area still faced a strong patriarchal system and are confined with a culture that does not allow women to looking for money or a job. As a result, women are underestimated in rural economic environment which ultimately makes the potential of rural women are less maximized.

In connection with the matters above, the authors believe that this issue needs to be discussed through a feminism perspective from since this issue is a gender equality issue and closely related to the economy and development of an individual. Therefore, this scientific paper aims to review the efforts of empowering rural women as an Indonesian digital economic strategy. The authors see the need for efforts to optimize the empowerment of women in the rural area to support digital-based local businesses (e-commerce) and the contribution of rural women human resources to support the economic industry through the Digital Inclusion Policy. The authors will use a gendered approach that focuses on the empowerment of women in the context of the digital economy. A gender perspective that the authors believe is appropriate to study this case is the feminism approach and the Women in Development Approach and uses the concept of empowering women in the digital economy. Because the world is constantly undergoing change, there is a need to adjust to seeing this problem through forwarding its theories and concepts.

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2. LITERATURE AND METHOD

Before further analysing the existing discussion in the formulation of the problem, in this paper, the authors used the analysis of secondary data on the discussion and literature review to some appropriate theories as the basic concept in the future discussion. The authors use the theory of feminism as the main framework in explaining and understanding the related concepts in the digital economy since this theory discusses a very important point in finding a significant relationship between gender equality and economic growth especially in the digital era. The authors will then explain further the concept of women empowerment in the digital economy paradigm to justify how important the role of women in the growth of digital economy. Finally, the authors will explain the concept of Women in Development Approach (WID) as the main solution in increasing the growth of digital economy in Indonesia through the consideration of gender perspective.

Feminism in Economy

The concept of economics from the beginning has become a major criticism for scientists who concentrate on the field of gender equality. This started when Alfred Marshall, from economic discipline explained the concept of economics as “The study of men as they live and think and move in the ordinary business of life”\(^{11}\) The word “men” is a marker that in a gender perspective, economics tends to ignore considerations of women participation and focus on men.\(^{12}\) No wonder, if scientists like Camille Paglia believe that “Economy is too much of a man’s world”.\(^{13}\) These criticisms then gave birth to a new perspective in seeing how the economy should develop which one of them is the concept of feminism.

The concept of feminism is a concept that believes that women and men are equal in political, legal social and economic terms as well. This concept arises when women experience oppression of their basic rights in achieving education, employment, voting rights, public facilities, or positions in government. Without exception in terms of economics, feminism theory believes that economic globalization makes women exploited which then results in inequalities in economic opportunities for women.\(^{14}\) Furthermore, modern economics according to feminists are very dependent on men, that is why women’s contributions are routinely ignored and ultimately less appreciated.

Therefore, the theory of feminism believes that women have equal opportunity in economic activity and demand equal opportunity in all things. The discourse on gender equality in the economy is actually interesting to discuss. Because there is a very strong relationship between the achievement of gender equality and economic growth.

Social science scientists such as Valeria Esquivel revealed that gender equality promotes economic growth directly and indirectly. Directly occur when the increase in human resources in women will increase the frequency of productivity that affects


economic growth. Moreover, increasing human capital to women in the workforce enhances overall economic productivity. Then indirectly occurs when there is an increase in human capital in women in terms of education, employment status, and income which will then have a significant impact on the education and health of their offspring, thus increasing the productivity of prospective workers in the future.  

The existence of gender equality in economic development proves to be very effective in practice. Studies conducted by World Bank (1995) indicate that development investments in women result in greater economic efficiency and social returns (social values gained after investment) because women have different priorities and are more useful in household expenditures (women invest in the field of child education, training, health, and nutrition). The further study explains that women spend a larger portion of their income on household needs than their personal activities, rather than what men do.  

Women Empowerment Concept in Digital Economy Paradigm

Women empowerment concept has become the primary concern in feminism world in effort to achieve the gender equality. Kabeer (1999) describes the concept of empowering women as “Developing the ability of women to make strategic life choices in contexts where this capability was previously not recognized.” In a similar perspective, women empowerment according to Marilee Karl (1995) is “a process of awareness and capacity building toward greater participation, greater decision-making power and greater control.”

The existence of the concept of women empowerment in this paper is actually motivated by the fact that the digital economy becomes a major issue against the digital divide between women and men. Amy Antonia in her journal “The Gender Digital Divide in Developing Countries” explained that women in developing countries have far lower technological participation than men. In general, women account for only 25% of internet users where Asian women in their presentations only have 25% of the total presentation. Friedman (2006) argues that globalization and digitalization have created a flat world, which means that players from various companies regardless of size - including small and medium enterprises - have a large participation in economic opportunities. Unfortunately, this “flat world” according to Alicia Barcena provides economic opportunities that are not equally distributed to the group of women, especially

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17 Ibid.
21 Ibid.
in rural areas. As a result, this causes an imbalance of opportunities between men and women in achieving economic opportunities. Therefore, a policy that supports the growth of the digital economy according to Alicia needs to pay full attention to aspects of gender equality that opens equal opportunities for men and women. Furthermore, domestic policies relating to economic productivity require efforts to integrate women in order for employment and income access to have equal opportunities with men. In conclusion, Alicia points out that a gender perspective will explain that state policy toward the digital society must be based on two things: (1) maximizing the opportunities offered by the digital revolution and (2) minimizing the risk of women left behind. Therefore, the focus of empowerment in the digital economy here is toward rural women, where the facts that rural women have fewer job prospects, lower incomes, and limited access to the internet.

Women in Development Approach (WID)

In this part, the authors believe the solutions that authors offer to develop the digital economy through a gender perspective can be taken in the concept of Women in Development Approach (WID). This concept is an approach that rests on the belief that women are actors as important as men in economic growth. According to Reeves, the Women in Development Approach is an economic development approach that calls on policy makers to focus on women further in their policies and practices, and to identify the need to integrate them into the development process. This concept started from the notion that development programs in the 1970s have been criticized for neglecting gender roles and having a major impact on women’s existence in developing regions. Easter Boserup (2007) in his analysis “Women’s Role in Development” explains that development strategies and program actions need to target the minimization of losses suffered by women in the production sector and end discrimination against them.

Interestingly, the concept of Women in Development Approach is motivated by the rise of the modernization paradigm that has become a dominance in international development ideas. It is said that modernization will improve the standard of human life through technological and educational development. Therefore, the concept of Women in Development Approach emerges as a counterweight to modernization need to consider a gender perspective in which case the participation of women in economic development.

The thing to be achieved in this concept is how the process of economic development emphasizes gender neutrality so that the role of women and men can be maximized effectively, not the blind development of gender consideration in policy making process. The WID concept targets that women’s participation in development will be a powerful stimulant to encourage women to raise awareness and initiatives to participate actively in developing the economy.

According to Tyler, there are three subdivisions of Women in Development Approach, namely: Efficiency Approach, Anti-Poverty Approach, and Equity Approach.

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24 Ibid.


In this study, the focus of the author is to prioritize Efficiency Approach where this approach emphasizes the promotion of efficiency towards women’s work, increasing productivity in the economic market to achieve the principle of justice in gender equality. Furthermore, the Efficiency Approach argues that without women’s active participation in a country’s economic productivity, resources become underutilized and development will be hindered. Kabeer explained that this approach was to “save women from marginalizing development and integrating them into the mainstream of development.”

3. ANALYSIS

It has become a general discourse that Indonesia has several home works in its effort to become a biggest player in digital economy in the ASEAN region. One of the most pressing one is the issue of Digital Divide. According to Organisation for Economic Co-operation and Development (OECD), Digital Divide is a term that refers to the existence disparity of individual, household, business entity, and geographical area in a different socio-economic level that related to the opportunity of accessing Technology Information and Communication and the usage of Internet in every day’s activities. There are two things that the writers will analyse in this part: (1) the digital divide in rural and urban area and (2) the digital divide between men and women.

Firstly, the digital divide between rural and urban area. Initially, the Indonesian government actually has clear purposes in its effort to create the economic digital inclusivity can be spread evenly to the urban and rural area across the archipelago. Quoted from the statement of the President of Jokowi from Antara News after his visit to Silicon Valley, United States in 2016, he said:

“We must build channel between logistical platform system in the world, with the range of products we created in the villages…. I think it is important for our product to be protected, we need to give them full support so that we can endorse to promote their product, to promote villages product and Small Business Enterprises that are exist in our country.”

Based on the statement above, we can conclude that government focus is including the equity and eradication of digital gap in Indonesia. However, the ideal dream does not always as sweet as the reality. If we look at the facts, the digital divide still exists. International Telecommunication Union in 2014 stated that 83,4% the ration of internet user in Indonesia between rural and urban is still very high. The internet user in urban area encompasses 83,4% of the total population while the rural only exhibit 16,6%. Moreover, Central Bureau of Statistic or Badan Pusat Statistik (BPS) claimed that the percentage of internet user toward the rural people in 2014 are only 6,7% from the total population. Thus, this issue of course will become a main challenge of Indonesian government in regards to the digital divided between rural and urban area which in the

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writers argument, will impact two things: (1) The existence of disparity within the region will weaken the economy of a country, slowing down the business development within the region according to OECD\textsuperscript{32}, and (2) Less effort to minimalized the primary product in villages as Indonesian primary product will make Indonesia lose most of its potential market in e-commerce along with its potential human resources and employment in e-commerce sector in many rural regions.

Secondly, the digital divide between men and women. It has become a familiar thing in our ears that the effort of gender equality becomes pat of Indonesia’s main program in developing the economy. The appointment of President Joko Widodo as the ambassador of the social campaign “He for She” indicates that Indonesia has big role in its effort to reducing the gender inequality and disparity in this world.\textsuperscript{33} Therefore, the effort to developing the digital economy, according to the writers, is indeed important to integrate it with the effort of reducing the gender inequality. It comes out from the reason that gender equality in economic development will help a lot to increase the productivity, create new job field and to reduce the rate of poverty in this country. However, the facts in the field does not show its significant effect towards government effort in integrating it with the gender inequality program in dealing with development of digital economy.

A survey from the Global Accenture quoted from Antara News revealed that in 2016, Indonesia is the second lowest country out of 26 countries in terms of capability to reduce the gender inequality throughout digital skills.\textsuperscript{34} Moreover, managing director of Accenture conclude that “women do not realized that benefits of digitalisations to support their job and career development” In a different source, BPS revealed that the number of male internet users and female internet users has significant gap in which is 16,33% for male and only 13,88% for female.\textsuperscript{35}

Having said that, it can be indicated that the percentage of rural women becomes the least from any of the groups which makes sense that this group (rural women) is the most marginalized group from any other groups when it comes to the digital economy. BPS noted that in 2014, the percentage of rural women only covers 6,7% for internet users compare to the urban women that almost reach 21%. The sad truth is, rural women has big role in terms of economic development of a country. UN Women claimed that rural women are the vital agent to reach the transformation to sustainable economic development.\textsuperscript{36} In this sense, if the challenge to reach the gender equality from digital


The writer has argued the challenges that Indonesia will face to develop the digital economy in gender perspective. Next, the writer will explain his analysis toward the opportunity that currently exist in Indonesia and how Indonesia can maximize its opportunities. The writer will divide this analysis into two things: (1) the potential market of e-commerce that exist in the rural area (2) how the rural women can become a main instrument to open up this potential market of e-commerce in the rural area.

First, the potential market of e-commerces that exist in the rural area. In general, the number e-commerce market in the percentage is increasing every year. The Central Bank of Indonesia or Bank Indonesia (BI) quoted in Kata Data estimates that the value of e-commerce is increasing from 2011-2015. BI cited in Kata Data estimates that e-commerce trade value every year increse from 2011-2015. It can be shown by this graphic below:

![Figure 1. the value of e-Commerce transaction in Indonesia 2011-2015](image)

Moreover, in its development in 2017, data from Investent Coordinating Board or Badan Koordinasi Penanaman Modal (BKPM) explained that investment values in e-commerce sector has reached USD 5 billion. These values indicate that the market of e-commerce in Indonesia is increasing every year. Even more, it is predicted that in 2020, government will target its e-commerce values to be more than USD 130 Billions.

Having said that, the writer sees that the government will face huge obstacles to reach the target if all of this potential e-commerce from rural regions cannot be maximized. This argument is considered by two things: (1) More than half population of Indonesian productive employee comes from rural area (2) The primary sectors of Indonesia in economy such as agriculture, fisheries, tourism, forestry, livestock, and commerce most of them are in the rural region. With the total number of Small and Medium Enterprises (SMEs) that reach until 54,6 million and majority of them are in the rural areas, the e-commerce potential in the rural region can be claimed that it has huge chance to increase the Indonesian economic development particularly e-commerce market in Indonesia. 38 It comes out from the reason that digital economy development in rural will open the new market and new employment. Of course, when this kind of thing can be maximized, will create the high connectivity of e-commerce activity among regions such as village to village or village to urban or even village to international market. Thus, if the connectivity is created, then it can be concluded that economic activities in online will increase as well and have direct impact to the national economic development as a whole.

Second, the role of rural women as a main instrument to open up e-commerce market in the rural region. Far away from the previous analysis, the writer has explained how women have big role in economic development ranging from increasing the social welfare and the equity until national economic growth. His time, the writer will become more specific on how rural women can become a main instrument to open the potential market of e-commerce in the rural area.

As what we know before, the ratio of rural population between male and female is relatively balanced, where as 40% population of the rural are women. Furthermore, BPS revealed that from this 40% population, the percentage of rural productive women that are not working reach the number of 43% 39. Thus, based on the prior analysis, in National scale, Indonesia has not even maximized the role of women as its main instrument in e-commerce sector.

There are two things that can make Indonesia’s rural women can open up this opportunity. First is the role of women as the local entrepreneurship which can come from their or their family’s product, and second is the role of women as the human resources in Science, Technology, Engineering, and Mathematics (STEM) as it is needed to become a main component in digital economy.

An analysis from Food and Agriculture Organization (FAO) revealed that women entrepreneur contributes to the economic growth and a clear representation of many potential that has not been touched before by many governments. 40 In its role as the entrepreneur, the rural women has big potency in opening the e-commerce market in Indonesia. It comes out from the reason that rural women is counting on SMEs Sector whereas SMEs sector has huge role in national development economy. It needs to be taken into note that SMEs of Indonesia contributed to 60% of Indonesia’s Growth Domestic Product (GDP) and the rural area itself has contributed to the 20,7% to


Indonesia development in 2016 as a whole. The interesting part is that if SMEs sector particularly in the rural region can be integrated in the digital economy’s program from Indonesia government, will obviously open up the new potential market in the rural areas in many sectors that have never been opened before such as creativity, agriculture, and other primary product of rural area.

In its development, the government throughout Ministry of Cooperatives and SMEs revealed that in 2017 there have been about 3,79 million SME that started to running their business online. However, it means that only 8% from the total number of the whole SMEs in Indonesia In gender perspective, women contribution in digital economic strategy that counts on SMEs obviously will increase the total number of online business in Indonesia. Not just that, the effort of digitalization in Indonesia will increase the productivity of rural women activities that currently just focus on promoting their product in its own local area.

Second part is the effort to empower the rural women in STEM sector. The existence of digital economy trend in recent years and the prediction that this digital economy will become the biggest economic industry means that this sector will need a lot of human resources as it become a transformation of employment that are more focuses on STEM sectors. It comes out from the reason that digital economy industry needs human resources that run in STEM sectors. However, the women contribution is indeed very low when it comes to STEM employment sectors. Last statistics from BPS revealed that there are about 131,55 million of workers that available in national employment. Thus, according the gender perspective, the rate of women contribution in the national employment only covers up to 55% which less than men that reach around 83,1%. Particularly in the STEM Industry, there are only 30% of women workers. Moreover, rural women only cover 6% from the total women workers in STEM sector. Indeed, it becomes a huge worry, since the development of digital economy should be in line with the development of women in employment. If this problem is let to be happened, then the future will work in a way that women will be left behind since STEM industry dominate the women employment cannot do anything about it.

According to the study from United Nations Educational, Scientific and Cultural Organization (UNESCO) in 2015, the low rate of women participation in STEM is caused by the environment perspective which makes the mindset of STEM is an inherently dominant male jobs and thus it does not give any attraction for women to work in that sector. Moreover, women access to this sector is very limited and provide little chances to access the education in STEM industry. Shinta Kamdani, Executive Director from Indonesia Business Coalition for Women Empowerment (ICBWE) argued that “one of the main issue for women in STEM is because it is perceived that it does not give friendly

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environment to women.” Thus, according to the prior analysis, the writer believes that there is a huge potency of digital economy development in Indonesia if women is started to play a bigger role in STEM industry which is actually an essential role in Digital Economy. It can be done through the increasing amount of human resources in STEM sectors particularly in rural women that still being marginalized when it comes to digital opportunity like this.

Looking at the latest data from Internet World Statistic in 2018, shows that Indonesia is the 5th ranked on total of internet users, reaching 93.4 million people, we are also high up on the users of smartphone which reached 71 million people. With also having a significant amount of total population, as well as being 5th in total internet users, Indonesia have a big chance to become a player for digital economy in Southeast Asia (ASEAN).

Therefore, we need not wonder on why the Government creates Presidential Regulation No. 74 of 2017 on Road Map E-Commerce. With the enormous potential that Indonesia possesses, using the Road Map E-Commerce the government set a target on how the policy would help to create 1,000 technopreneurs with total business value reaching USD 10 billion with the ecommerce value reaching USD 130 billion.

In their official website the Coordinating Ministry for Economic Affairs of Indonesia stated that the Road Map e-Commerce’s goal is to: (1) Ease and widen the access to funds and budgeting; (2) Tax incentives; (3) Consumer protection; 4) Developing our human resources; (5) Enhancing the national logistical system; (6) Accelerating development of communicational infrastructure; and (7) Cyber Security. Moreover, when announcing Economic Policy Package XIV Road Map E-Commerce in the Presidential Palace, Coordinating Minister for Economic Affairs, Darman Nasution stated that “this policy will prioritize and protect national interest, especially towards Micro-businesses, SMEs as well as start-ups. Besides that, the policy will also be an effort to better the capacity of our human resources which will be the forefront users and drivers of e-commerce”. Based on that it is implied from the previous goals, the authors believe that development of human resource especially in digital economy is quite fundamental in making Road Map e-Commerce a success.

Development of human resources is one of the most important points. Quoted from their official site, the Coordinating Ministry for Economic Affairs explained that education and development for human resources in regards to Road Map e-Commerce consists of: (1) awareness campaign for e-commerce; (2) A national incubator program; (3) a curriculum that involves e-commerce; and (4) e-commerce education to the consumers, actors and law enforcers. Moreover, the fact that the Ministry of Villages, Disadvantaged Regions, and Transmigration of the Republic of Indonesia are not

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45 Ibid.
49 Ibid
50 Ibid
involved or included in the Road Map e-Commerce 2017 policy indicates that Road Map e-Commerce still lacks of gender perspectives and inclined itself to a more gender-blind perspective policy instead of a policy that are more attentive towards gender equality.

Therefore, it is quite important for the Human Resource development of these rural women’s as they are part of the component which moves the wheels of Indonesia’s potent digital economy. This claim is based on the fact that the number of rural villages in Indonesia are still considered to be quite numerous. According to the Ministerial Registration from the Ministry of Internal Affairs of the Republic of Indonesia No. 56 of 2015 on Code and Data for Governmental Administrative Area showed that the total amount of rural villages in Indonesia reached 74.754 Villages. Moreover, BPS’s data regarding the number and the percentages of the population according to age group and areal category, 2014 stated that 49.87% (n=125.702.460) or almost half of Indonesia’s population resided in rural villages. Furthermore, the youth population (scale of 16-30 years) in rural villages generally has more females than males based on the gender ratios.

Additionally, Article 26 of the Village Constitution No. 6 of 2014 stated that a village’s governmental administration must be based on gender equality. This then indicates that the presence of gender equal perspectives in taking digital economic policies are clear and that it should and must be applied in actual governmental policies. Why is this narrative so important to the main issue? That is because these regulations could be used as a reference on why the human resource development for digital economy needs to make the rural women as its main priority. Of course, this will in turn become the main potential in maximizing the acceleration of economic development in supporting Road Map E-Commerce.

We can see the example of successful implementation of such policies in Thailand which focuses on developing women in rural areas. In mid-2017, the government cooperated with the Food and Agriculture Organization (FAO), Microsoft (Thailand), Cisco (Thailand) and International Telecommunication Union (ITU) in conducting training programs regarding agricultural technology (agritech) for women in rural areas and digital skills training all around the country. The results was quite effective, by empowering the rural women through developing their skills, Thailand was able to increase their economic development significantly. Based on the statistics from Trading Economics quoted from Kata Data News and Research, Thailand was able to increase economic growth, from 3% growth in Q1-2017 to 3,71% in the next quarter. In Q3-2017 Thailand economic growth went to 4,3% an increase of 1,3% compared to Indonesia’s 5,01% growth on Q1 and Q2-2017 which later barely went up on Q3 to reach 5,06% a bare increase of 0,05%.

53 Badan Pusat Statistik, Rasio Jenis Kelamin Pemuda Menurut Tipe Daerah 2012–2014
54 Undang-Undang Desa Nomor 6 Tahun 2014.
The developmental program for women of rural areas done in Thailand is a living proof of how rural women could become a big contributor to Thailand’s economic growth, as shown by the image above. Moreover, one of said factors of economic growth is due to the existence of a policy which promotes gender equality and women empowerment in all regions of Thailand. In their official site of Thailand Government on Public Relation they even stated that “Women empowerment is a significant component in country development.”

Aside from that, the existence of governmental policies which includes gender perspectives by empowering rural women into the digital economy is proven quite effective not only for economic growth, but it could also be the way to decrease the digital and technological gap and create an inclusive economy for all parts of society. One of the principals of a rural school in Nan, Thailand explained that the developmental programs that was given is very useful and beneficial in developing awareness of e-commerce in the household.

“The computer and the Internet are very important for students, especially when they are searching for information and knowledge, this helps them a lot in their studies. Another benefit is that they take this computer knowledge home to their family who might be selling products and can assist in establishing e-commerce for the family,” said Pornchai Nachaiwiang, Principal of Ban Pang Kae School in Nan.

The authors have analysed on what challenges and opportunities that Indonesia has in facing a digital economy that is based on gender perspective. The authors have also explained regarding how potent is the opportunities for digital economy if they could maximize on rural women by empowering them. On this part of the research paper, the writer will explain the main solution which could face the challenges and opportunities in Strengthening Indonesia’s Digital Economy Vision 2020.

This time, the writer will use the Women in Development Approach as the basis of the solution which will be elaborated through two practical solutions, which are: (1) enhancing human resources especially for rural women in STEM sector (Science, Technology, Engineering, and Mathematics) through the collaboration between the government and non-governmental entities, (2) The optimization of Digital Inclusion Policy in gender perspective by integrating rural women on Road Map E-Commerce.

58 ITU News, Ibid.
With the presence of these solutions, it is hoped that the idea of gender equality will be achieved and can accelerate the digital economy growth that should become a fundamental perspective for Road Map E-Commerce 2017-2019. At the end, this solution will be the realization of Indonesian Digital Economy Vision 2020 and its target to reach 1000 technopreneurs and the biggest e-commerce player in Southeast Asia. For a clearer visualization, authors decided to use this schematic below:

![Indonesian Digital Economic Vision 2020 Diagram](image)

**Figure 3.** Visualization of Analysis and the Authors solution in Digital Economic Vision for Indonesia 2020

- Vision that needs to reached
- Main objective of authors’ solution in *Road Map E-Commerce*
- Solution through Women in Development Approach

There is no doubt that in the trend of technological development, the world has entered the industrial revolution 4.0. Thus, the need for women’s contribution is emphasized to participate in the STEM field. Please note that only 20% of women work in the STEM Industry and only 6% of rural women work in rural areas. Indeed, the dynamics of the industry in the digital economy needs to be adjusted to the needs of Indonesia and ensure that no women are left behind.

The authors believe that the contribution of rural women in the STEM field can be done under the following technical mechanisms:

1. The establishment of women empowerment taskforce through the Ministry of Women Empowerment to facilitate rural areas with information centres regarding education opportunities to open employment opportunities in STEM Field;
2. Increase social awareness efforts and training in villages by increasing information about the importance of STEM in the daily economy. This can be done in

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collaboration with entities that globally focused on women’s empowerment such as UN Women, the World Bank, the United Nations Development Program (UNDP) and collaboration with private parties that have large industries in Indonesia;

3. Integrate the service of Desa Perempuan Indonesia Maju Mandiri (DESA PRIMA) with digital literacy and gender equality to overcome the digital gap phenomenon. This can be utilized with the coordination of the central government and the district / village level regional government;

4. Increasing scholarship programs for rural women who are qualified to master the STEM field. This is done by providing special quota to rural women in order to be the main stimulant and encouraging the rural women’s desire to be more productive.

Of course, the solutions above are sets of policy recommendations for the government to pay more attention to women who are often marginalized in rural areas and help to increase opportunities for the creation of technopreneurs in Indonesia. It is hoped that the programs are able to prioritize women’s contributions in the STEM field that will give birth to new technopreneurs. It will also be in accordance with the vision of Indonesia 2020 and also support the components of the digital economy industry that have a smaller number of technicians in STEM field in the current status quo.

New policies in the same context are needed to help women in solving digital inequality problems in regards to women in rural areas, seeing that there should be the presence of innovation to address the digital gap that disadvantage the rural women, therefore, the authors propose a digital inclusion policy in a gender perspective in order to make room for rural women to have digital access to e-commerce of superior and outstanding village products. The word inclusion in Cambridge dictionary means an idea that allows everyone to do the same thing and take part in the same activity. Therefore, digital inclusion policy is defined as a policy whose goal is to let everyone has the same digital access and same digital activity.

In general, digital inclusion policy is a policy whose main objectives are:
- Everyone has the right to have access to broadband and adequate digital devices;
- Everyone has the right to have knowledge regarding internet utilization;
- Everyone is able to use technology to improve the quality of life and to overcome poverty.

The Integrated Broadband Village program in 2015 from the government is basically a form of digital inclusion policy, however, it is only necessary to be developed in different point of view which is in economic and gender perspective which is not only facilitating villages with internet access facilities, but also empowering rural women in digital capabilities (digital literacy) that can be used to do business, especially in establishing the business based on digital (e-commerce).

With the presence of the digital inclusion policy that is being reviewed with an economic and gender perspective, this can be the key to promote sustainable economic growth. Why? It is because the main matter in this policy is the emphasis to everyone, especially to women in the village. When women have access and learn regarding the utilization of the internet, it will certainly create opportunities in doing business, especially to pioneer the business based on digital (e-commerce).

For rural women, computers and the internet are very important in finding information. With the computer knowledge that they have, rural women can sell products and can help in building e-commerce for families, for example, the sale of agricultural online products through the applications with special designs.

In the implementation of digital inclusion policy in the perspective of gender economy begins with the following actions:
- Collaboration between the Government and related Ministries with Non-Governmental Organizations and private companies that share the same vision in launching capacity building programs that aimed to inculcate the digital skills for rural women;
- Government Coordination to achieve digital transformation through Integrated Broadband by establishing more rural internet centres, to provide remote communities across Indonesia with Internet and digital access that are useful in skills especially in pioneering digital based businesses for rural women;
- Special priority for rural women by providing basic training, workshops, and seminars on digital literacy with relevant content and services, especially in organized and sustainable e-commerce;
- Prioritizing women especially rural women for government existing programs such as but not limited to UMKM Go-Online, 1 Juta Nelayan Petani Go-Online, and several other empowerment programs. It is intended to provide a stimulus for rural women to become more confident to grow and raise awareness to other rural women and families who still have a strong patriarchal mindset that gives a belief that rural women cannot support economic contributions to their families;
- Monitoring, watching the process and development of each program that is implemented in the digital inclusion policy in an economic and gender perspective to be able to run properly and correctly;
- Evaluation in providing feedback on economic and gender perspective digital inclusion policies to find out whether the program reaches the expected goals or not.

Optimization of digital inclusion policy in a gender perspective makes the authors believe that this is able to overcome the digital gap for villages and women itself, with the collaboration and coordination of the government with relevant parties in implementing digital inclusion policy for rural women, especially if it is used to increase business productivity related to the existing sector of the village. The agri-based economy and handicraft sectors are the favourite sectors of the village that is able to empower rural women in doing e-commerce.

When this is implemented properly, of course the government’s target to create the largest e-commerce market can certainly be achieved and will have an impact on the increasing numbers of the productive workforce and reduce the number of unemployed rural women in the digital economy sector. This then becomes a stepping-stone for the government in accelerating economic growth to achieve Indonesia’s 2020 digital economic vision in the e-Commerce Road Map.

4. CONCLUSION

In its efforts to achieve its vision as the biggest player in the digital economy in the Southeast Asia in 2020, Indonesia has unique opportunities and challenges to make it happen. One of the main challenges is in how the way to strengthen the digital economy can be harmonized with gender equality efforts through empowering rural women. On the
same side, this challenge can be a major opportunity by making rural women as a potential human resource in accelerating digital economic growth in Indonesia if it can be maximized properly. Therefore, the authors believe that in order to respond to challenges and maximize opportunities, new approaches are needed in shaping the digital economic strategy of Indonesian government in the concept of feminism especially using the Women in Development Approach.

In accordance with that, in order to achieve Indonesia's economic vision 2020 with the target of 1000 technopreneurs and the largest e-commerce market in Southeast Asia, Indonesia needs to strengthen the policy of Road Map E-Commerce with digital inclusion policy solution as the basis of strategy that more focus to gender-based policies. The authors recommend improving the contribution of rural women in the STEM field by making collaboration with related entities and maximizing the role of female entrepreneurs in mobilizing superior rural main products through the Road Map E-Commerce

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The Influences of Life Style, Perceived Ease Of Use, And Perceived Usefulness On The Interest In Using E-Money Card Mandiri Bank In Jakarta Indonesia

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Abstract

E-money or electronic money is the new innovation payments in Indonesia. This research aims to analyze the influences of life style, perceived ease of use, and perceived usefulness on the interest in using e-money card Mandiri Bank In Jakarta Indonesia. The method in this research is using primary data with questionnaire. The sample is selected using the method of purposive sampling, and the respondents in the research who have users e-money Mandiri bank in Jakarta. The size samples is 100 respondents. The analytical tools used in this research is multiple linear regression. The results of this study indicate that partially life style, perceived ease of use, and perceived usefulness positive influence. That simultaneously life style, perceived ease of use, and perceived usefulness together influence the interest in using e-money card Mandiri bank in Jakarta Indonesia.

Keywords : life style, perceived ease of use, perceived usefulness, interest in using e-money card.

1. INTRODUCTION

In recent years the Indonesian people have been introduced to relatively new payment instruments in Indonesia to conduct transactions called e-money. E-money available in Indonesia since 2009 which was approved in Bank Indonesia regulation No.11 / 12 / PBI / 2009 concerning electronic money (e-money). E-money is a new innovation of payment systems in Indonesia reducing the function of the money itself. In recent years Indonesian people have been introduced a new payment instruments in Indonesia to conduct transactions called e-money.
E-money aims to facilitate people in carrying out all kinds of economic transactions in their lives, especially for micro-scale transactions. The benefits offered by e-money are a positive thing that has an impact on the interest to use the e-money facility. The ease and benefits offered by e-money products can have an impact on increasing its users.

2. LITERATURE REVIEW

Lifestyle
According to Kotler and Keller (2009) lifestyle is a person's life pattern as stated in activities, interests, and opinions. Whereas according to Kotler and Armstrong (2008) lifestyle is a person's life pattern as expressed in his psychography.

Perceived Ease of Use
Nasution (2004) states that information technology users believe that information technology is more flexible, easy to understand and easy to operate as a characteristic of ease of use. The ease that leads to an individual's belief that the use of the system does not require much effort.

Perceived Usefulness
According Jogiyanto (2008) the perception of the benefits of use is the extent to which a person believes that using a technology will improve the performance of his work.

Interest to Using
Interest is one of the psychological aspects that have a significant influence on behavior and sources of motivation that direct what someone will do (Gunarso, 2005). While Simamora (2002) defines interest as something personal and relates to the attitude of individuals who are interested in an object which will lead to strength or encouragement to conduct a series of behaviors to approach or get the object.
The model explains that the Lifestyle variable (X1), Perceived Ease of Use variable (X2), and Perceived Usefulness variable (X3) affect the interest of using e-money card Bank Mandiri variable (Y).

3. RESEARCH METHODS

Population and Samples

In this study the population used is the Bank Mandiri e-money card users. Transactions of Bank Mandiri e-money card users in the third Quarter of 2017 reached 10.82 million. The sample research technique used in this study was purposive sampling. According to Uma Sekaran and Roger Bougie (2003) purposive sampling is that researchers obtain information from those who are most prepared and fulfill some of the criteria needed in providing information.

Data Collection

In collecting data, it uses primary data and secondary data. Primary data is collected by distributing questionnaires to respondents and the authors get secondary data through journals, the internet, and literature review research related to the author's research.

Data Analysis

The analysis was carried out using the help of a computer program that is SPSS (Statistical Package For Social Science) version 23.0, the analytical tool used in this study were: validity test, reliability test, normality test, multicolinearity test, heterokedastity test, multiple linear regression test, test T, F test, and R² test.

4. RESULTS AND DISCUSSION

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Test Result</th>
<th>Meaning/Discussion</th>
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<tbody>
<tr>
<td>T Test (Partial Test)</td>
<td>Conclusion</td>
<td></td>
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Figure 2: Research Framework
<table>
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<tr>
<th>Hypothesis</th>
<th>Test Result</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H1: Lifestyle influences interest in using e-money card Bank Mandiri</strong></td>
<td>t count (3.219) &gt; t table (1.985) and significant level (0.002) &lt; 0.05</td>
<td>The higher demands of a person's lifestyle towards something offered (a practical and simple lifestyle), the higher interest in using the e-money card mandiri bank in Jakarta.</td>
</tr>
<tr>
<td><strong>H2: Perceived ease of use influences interest in using e-money card Bank Mandiri</strong></td>
<td>t count (2.761) &gt; t table (1.985) and significant level (0.007) &lt; 0.05</td>
<td>The higher level of perceived ease of use and consumers feel ease of using e-money cards mandiri bank,</td>
</tr>
<tr>
<td><strong>H3: Perceived Usefulness influences interest in using e-money card Bank Mandiri</strong></td>
<td>t count (3.311) &gt; t table (1.985) and significant level (0.001) &lt; 0.05</td>
<td>The higher level of perceived usefulness, the higher interest of consumers to use the e-money card mandiri bank in Jakarta.</td>
</tr>
</tbody>
</table>
5. CONCLUSION

From the results of analysis and testing that has been done, the following conclusions are obtained:

1. The lifestyle variables have a positive and significant effect on the interest in using e-money cards Mandiri Bank in Jakarta.
2. The ease of perception variable has a positive and significant effect on the interest in using e-money cards Mandiri Bank in Jakarta.
3. The perception usefulness has a positive and significant impact on the interest in using e-money cards Mandiri Bank in Jakarta.
4. Simultaneously there is a significant influence between lifestyle variables, perceived ease of use, and perceived usefulness on the interest in using e-money cards Mandiri Bank in Jakarta.

Implication & Suggestion

1. Life style influences interest in using e-money card, so that Mandiri Bank should maintain a good image or view and Mandiri Bank should also follow the purchasing ability of consumers. In this era of globalization consumers show practicality, especially for transactions without having to carry cash.
2. Perceived ease of use affects the interest to use e-money card, so that Mandiri Bank provides convenience to its costumers in terms of its facilities, and the applications used. Using a system that is easy to understand because the higher level of perceived ease of use, the higher the interest of consumers to use e-money cards Mandiri Bank.
3. Perceived usefulness affects the interest in using e-money card, so that the Mandiri Bank should provide many benefits to consumers by giving good services to consumers, providing information on what benefits are obtained when using e-money card Mandiri Bank.
4. For further research that is relevant to this title, it can be added variables or other factors that can influence the interest in using e-money cards using different analytical methods.
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Backward Integration Strategy of an Automatic Gas Deck Oven Distributor

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Abstract

Nowadays, the most commonly used type of baking oven in the baking industry is Automatic Gas Deck Oven (AGDO). Most of the AGDOs available in Indonesia are imported from China and in the past two years, the price of these imported AGDOs has been increasing. This price increase is a business issue for PT XYZ, who is a competitive family-owned bakery equipment distributor. In this paper, analysis to solve this business issue will be done using TOWS matrix and Grand Strategy Matrix. By combining the recommendations from these two matrices, backward integration strategy into the AGDOs manufacturing industry is chosen as the most optimum strategy. Three analyses were then performed to measure the effectiveness of this strategy. Analysis using Porter’s Five Forces shows that the AGDOs manufacturing industry is attractive. Manufacturing cost analysis shows that the manufacturing cost can be lower than the imported price with the condition that it produces certain quantity to achieve the economies of scale. Lastly, based on the expected implementation plan, the calculated Net Present Value resulted in a positive net profit. Therefore, to also prepare for the further price increase of imported AGDOs in the future, it is highly recommended for PT XYZ to perform the backward integration strategy.

Keywords: Integration Strategy; Import; Price Increase; TOWS; Grand Strategy Matrix

1. INTRODUCTION

The Baking Industry in Indonesia

Nowadays, bakery products (Breads and cakes) have become a staple food for some Indonesians, especially for most urban communities. Even among teenagers and children, bakery products start to replace rice as the main carbohydrate source. It can be perceived as a simple and instant food since it can be consumed directly. Also, it is not difficult to find bakery products nowadays since most convenience stores sell bakery products. Thus, consuming bakery products is considered more practical for the lifestyle of urban people who tend to be busy and active.
As the country develop and the lifestyle of its population becoming more urban, the demand for simple and instant food like bakery products will also increase. The increasing demand of the bakery products in Indonesia can be seen from the high percentage increase in bakery products consumption compared to other prepared foods as shown in the table 1 below.

Table 1. Weekly Average per Capita Consumption of Prepared Food

<table>
<thead>
<tr>
<th>Food</th>
<th>Unit</th>
<th>2013</th>
<th>2017</th>
<th>% Change (2013 - 2017)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instant noodle</td>
<td>Portion</td>
<td>0.025</td>
<td>0.588</td>
<td>2252.00%</td>
</tr>
<tr>
<td>Fish (Fried, roasted, etc)</td>
<td>Piece</td>
<td>0.103</td>
<td>0.74</td>
<td>618.45%</td>
</tr>
<tr>
<td>White loaf bread</td>
<td>Small pack</td>
<td>0.064</td>
<td>0.367</td>
<td>473.44%</td>
</tr>
<tr>
<td>Sate/tongseng</td>
<td>Portion</td>
<td>0.066</td>
<td>0.256</td>
<td>287.88%</td>
</tr>
<tr>
<td>Cookies</td>
<td>0.1 kg</td>
<td>0.168</td>
<td>0.384</td>
<td>128.57%</td>
</tr>
<tr>
<td>Other bread</td>
<td>0.1 kg</td>
<td>0.488</td>
<td>1.104</td>
<td>126.23%</td>
</tr>
<tr>
<td>Fried rice</td>
<td>Portion</td>
<td>0.088</td>
<td>0.19</td>
<td>115.91%</td>
</tr>
<tr>
<td>Porridge of mungbean</td>
<td>Portion</td>
<td>0.056</td>
<td>0.111</td>
<td>98.21%</td>
</tr>
<tr>
<td>Cakes</td>
<td>Unit</td>
<td>0.687</td>
<td>1.345</td>
<td>95.78%</td>
</tr>
<tr>
<td>Lontong/ketupat</td>
<td>Portion</td>
<td>0.105</td>
<td>0.205</td>
<td>95.24%</td>
</tr>
<tr>
<td>Fried food</td>
<td>Piece</td>
<td>1.986</td>
<td>3.429</td>
<td>72.66%</td>
</tr>
<tr>
<td>Gado-gado/ketoprak/pecel</td>
<td>Portion</td>
<td>0.13</td>
<td>0.214</td>
<td>64.62%</td>
</tr>
<tr>
<td>Soup</td>
<td>Portion</td>
<td>0.102</td>
<td>0.16</td>
<td>56.86%</td>
</tr>
<tr>
<td>Steamed rice</td>
<td>Portion</td>
<td>0.146</td>
<td>0.214</td>
<td>46.58%</td>
</tr>
<tr>
<td>Chicken/meat</td>
<td>Piece</td>
<td>0.102</td>
<td>0.141</td>
<td>38.24%</td>
</tr>
<tr>
<td>Nasi campur</td>
<td>Portion</td>
<td>0.696</td>
<td>0.823</td>
<td>18.25%</td>
</tr>
<tr>
<td>Other food</td>
<td></td>
<td>0.676</td>
<td>0.345</td>
<td>-48.96%</td>
</tr>
<tr>
<td>Noodle (With meatball)</td>
<td>Portion</td>
<td>0.351</td>
<td>0.086</td>
<td>-75.50%</td>
</tr>
<tr>
<td>Children snack</td>
<td>0.1 kg</td>
<td>0.494</td>
<td>0.088</td>
<td>-82.19%</td>
</tr>
</tbody>
</table>

Source: Statistik Konsumsi Pangan 2017

Naturally, with the increasing demand of bakery products, the business of bakery producers will also flourish. According to Jumantara (2018), member of the Bakery Sub Sector of Joint Food Drinks Entrepreneurs (Gapmmi), the Compound Annual Growth Rate (CAGR) of breads and cakes business have increased by 14% in the 2010-2014 period and the CAGR growth projections for 2014-2020 period will be 10%. Furthermore, as the baking industry flourishes, the demand of bakery equipment will also increase to support the production for the increasing demand. This is where PT XYZ as a bakery equipment distributor comes into picture.

About the Company

PT XYZ (The company name is disguised to protect its trade secret) is a competitive bakery equipment distributor which supply bakery equipment and food processing machinery to lower and middle class society in Indonesia. It is a family owned business with over 20 years of experience in bakery equipment industry. Located in Medan, it has built strong partnerships with area distributors in Bandung, Jakarta, Surabaya, and Makassar to allow its products distribution to all over Indonesia. As one of the oldest bakery equipment distributors in Indonesia, with over 20 years of experience, PT XYZ vision is to be the best bakery equipment distributor in

Source: Statistik Konsumsi Pangan 2017
Indonesia and become the market leader for low to middle level priced bakery equipment. While their mission is to empower beginner to middle level customers by providing them with the best and affordable price, wide variety of products, and great after sales service.

Majority of the products sold by PT XYZ are purchased from importers which import them from China. The products purchased will be stored in warehouse or showroom owned by PT XYZ. When a customer places an order for products that are available in stock, PT XYZ will directly deliver the products to the customer. However, if the products are out of stock, then PT XYZ will need to execute product orders to manufacturers in China.

Currently, PT XYZ has more than 400 stock keeping units (SKU) with 23 different product types. From those wide variety of products, one of the best-selling product categories is automatic gas deck oven (AGDO), with total of 14 SKUs and 3 different brands, which roughly covers 20% of the annual sales made by PT XYZ. The high demand of AGDO is due to it being one of the most essential equipment for breads or cakes producers because majority of breads or cakes need to go through baking process in oven.

**Automatic Gas Deck Oven (AGDO)**

Automatic gas deck oven is the type of oven that uses gas to generate fire inside for baking. It is able to generate 2 rows of fire, top fire and bottom fire. Both rows of fire are monitored by temperature sensor inside. When the temperature inside has reached the temperature set by users, it will automatically cut off the fire, hence the word “Automatic” in the name. It can also be decked up to 3 decks to save space as can be seen in the figure 1 below. Depending on the size of the AGDO, each deck can contain different number of baking trays, with the smallest size is only 1 tray (40 x 60 cm per tray).

![Figure 1. Automatic Gas Deck Oven; (a) 1 deck, (b) 3 decks](image)

**Business Issue Faced by PT XYZ**

Since PT XYZ targets low to middle class society and it has mission to provide affordable bakery equipment, it is important that the price of AGDOs is kept lower than most of its competitor to maintain its business strategy. However, in the past few years the price of imported AGDOs has been increasing as can be seen in the figure 2 below. Furthermore, based on the price increase rate in 2018 shown in figure 3 below, it is observed that the average yearly imported AGDOs price increase rates were higher than Indonesia inflation rate. This means that
the price increase had exceeded the buying power of overall Indonesian people. Considering that PT XYZ target market is low to middle society who has higher price sensitivity, this imported price increase is a business issue for PT XYZ.

**Figure 2.** Average Imported AGDOs Price in The Past 2 Years

**Figure 3.** Imported AGDOs Price Increase Rate vs Inflation Rate in 2018
Business Issue Exploration

Conceptual Framework

In this paper, two matrices were chosen as the conceptual framework to analyze this business issue, find the root cause, and come out with a solution. These two matrices are TOWS Matrix and Grand Strategy Matrix (GSM):

1. TOWS, in which ‘T’ stands for threats, ‘O’ for opportunities, ‘W’ for weaknesses, and ‘S’ for strengths, is a conceptual framework for a systematic analysis that facilitates matching the external threats and opportunities with the internal weaknesses and strengths of the company. By using TOWS Matrix, four conceptually distinct alternatives strategy can be developed:
   a. The WT (Weaknesses-Threats) Strategy: This strategy aims to minimize both weaknesses and threats.
   b. The WO (Weaknesses-Opportunities) Strategy: This strategy aims to minimize weaknesses by taking advantage of opportunities.
   c. The ST (Strengths-Threats) Strategy: This strategy aims to minimize the threats by using strengths.
   d. The SO (Strengths-Opportunities) Strategy: This strategy aims to maximize the opportunities by using strengths.

To perform the TOWS matrix analysis, internal and external analysis need to be performed first to list down all the strengths and weaknesses of the company, and opportunities and threats available in the external environment. The conceptual framework of TOWS matrix can be summarized into figure 4 below.

![Figure 4: TOWS Matrix Conceptual Framework](image)

2. Grand Strategy Matrix (GSM) is a conceptual framework for formulating feasible and alternative strategies for a company based on its competitive position and market growth. It has four quadrants as shown in the Figure 5 below. Each quadrant contains different sets of strategies and all companies can be positioned in one of the quadrants.

To perform GSM analysis, internal and external analysis need to be performed initially to list out the strengths, weaknesses, threats and opportunities factors. Then, Analytic Hierarchy Process (AHP) is performed to determine the weight of each factor in the External Factor
Analysis Summary (EFAS) table and Internal Factor Analysis (IFAS) table. With the total scores obtained from EFAS and IFAS, the company position in GSM can then be determined. The conceptual framework leading to the company positioning in Grand Strategy Matrix is shown in the figure 6 below.

Figure 5. The Grand Strategy Matrix
The results obtained from these two matrices were combined to come out with the most suitable strategy to solve the business issue. After TOWS matrix generates the alternative strategies, the selection of strategies is done by considering the company position in GSM.

**Internal & External Analyses**

Following the conceptual framework explained above, internal and external analysis were performed initially to obtain data which was used as the basis of analyses. The internal analyses of PT XYZ were done using analytical tool such as Porter’s Value Chain Analysis and Four Criteria of Sustainable Competitive Advantage. While external analyses of external environment were done using Porter’s Five Forces and PEST Analysis. All those internal and external analyses are shown in the tables 2, 3, 4, and 5 below.

**Table 2. Porter’s Value Chain Analysis of PT XYZ**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Value Chain</th>
<th>Implemented Strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Inbound Logistics</td>
<td>Communicate directly with the manufacturers or trading agent in China to maximize the number of products loaded in the containers to reduce overall shipping cost</td>
</tr>
</tbody>
</table>
Operations
- 6 working days with total of 45 working hours per week
- No overtime pays for office staffs. Only logistic teams and technicians receive overtime pay.

Outbound Logistics
- Use its own vehicle to do delivery whenever the destination is still within driving distance (one day)

Marketing & Sales
- Lower prices compared to competitors
- No sales team
- Use social media or word of mouth to market its products

Service
- The owner is deeply involved in selection of manufacturers in order to obtain high quality products with low maintenance

Support Firm Infrastructure
- Simple organizational structure to reduce overhead cost

Human Resource Management
- Most of the employees are interviewed and hired directly by owner
- Policies are set directly by owner based on the company condition

Technology
- Does not implement unnecessary technology which can increase cost

Procurement
- Directly supervised by owner to reduce unnecessary cost

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**Table 3. Four Criteria of Sustainable Competitive Advantage Analysis**

<table>
<thead>
<tr>
<th>Capabilities</th>
<th>Valuable</th>
<th>Rare</th>
<th>Costly-to-imitate</th>
<th>Non-substitutable</th>
<th>Competitive Consequences</th>
<th>Performance Implications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective distribution</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Competitive parity</td>
<td>Average returns</td>
</tr>
<tr>
<td>Retaining employees</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable competitive advantage</td>
<td>Above-average returns</td>
</tr>
<tr>
<td>Effective customer service</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Competitive parity</td>
<td>Average returns</td>
</tr>
<tr>
<td>AGDO maintenance service</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Temporary competitive advantage</td>
<td>Average returns to above-average returns</td>
</tr>
<tr>
<td>Simple organizational structure</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Competitive disadvantage</td>
<td>Below-average returns</td>
</tr>
<tr>
<td>AGDO development</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable competitive advantage</td>
<td>Above-average returns</td>
</tr>
</tbody>
</table>

**Table 4. Porter’s Five Forces of AGDO Distributor Industry**

<table>
<thead>
<tr>
<th>Forces</th>
<th>Analysis</th>
<th>Industry Competitiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threat of new entrants</td>
<td>Becoming easier to enter this industry due to globalization of</td>
<td>Intense</td>
</tr>
</tbody>
</table>

Bargaining power of suppliers - Low bargaining power since there are many manufacturers in China | Benign

Bargaining power of buyers - High bargaining power since there are many players in this industry | Intense

Threat of substitute products - No substitute products in terms of functionality but many substitutes in terms of brand | Intense

Rivalry among existing competitors - High rivalry due to majority of the players offering almost identical products | Intense

**Table 5. PEST Analysis of General Environment**

<table>
<thead>
<tr>
<th>Factors</th>
<th>Analysis</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Political</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Import regulations</td>
<td>There have been no changes of import regulations for AGDO since 2015.</td>
<td>Regulation of the Minister of Finance Number 107/ 2015, Number 34/ 2017, and Number 110/ 2018</td>
</tr>
<tr>
<td>Very High Risk Importers Compliance Program Task Force established on 12th July 2017</td>
<td>Stricter import practice for importer.</td>
<td>-</td>
</tr>
<tr>
<td>Minimum wage in China</td>
<td>Increasing trend of minimum monthly wages all over China in the past few years.</td>
<td><a href="https://tradingeconomics.com/china/minimum-wages">https://tradingeconomics.com/china/minimum-wages</a></td>
</tr>
<tr>
<td><strong>Economic</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Exchange rate</td>
<td>In the past 2 years, the exchange rate of CNY to IDR have been increasing.</td>
<td><a href="https://www.xe.com/currencycharts/?from=CNY&amp;to=IDR&amp;view=2Y">https://www.xe.com/currencycharts/?from=CNY&amp;to=IDR&amp;view=2Y</a></td>
</tr>
<tr>
<td>Shipping price</td>
<td>World container index was fluctuating sideways in the past two years</td>
<td><a href="https://www.drewry.co.uk/supply-chain-advisors/world-container-index-weekly-update/world-container-index-assessed-by-drewry">https://www.drewry.co.uk/supply-chain-advisors/world-container-index-weekly-update/world-container-index-assessed-by-drewry</a></td>
</tr>
<tr>
<td>Stainless steel price in China</td>
<td>Increasing trend</td>
<td><a href="http://www.asianmetal.com/price/priceFactoryChartEn.am?priceParamId=1745">http://www.asianmetal.com/price/priceFactoryChartEn.am?priceParamId=1745</a></td>
</tr>
<tr>
<td><strong>Social</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food consumption pattern in Indonesia</td>
<td>There had been high percentage increase of bakery products consumption over five years (2013-2017)</td>
<td>Statistik Konsumsi Pangan Tahun 2017</td>
</tr>
<tr>
<td>Demographic</td>
<td>Decreasing working-age population in the</td>
<td>The End of Cheap Chinese Labor</td>
</tr>
</tbody>
</table>
In the PEST analysis above, the possible root causes of the imported AGDO price increase were also identified. They are:

1. Establishment of Very High Risk Importers Compliance Program task force which cause the strict import
2. The rising labor cost in China due to rising minimum wage and labor shortage
3. The strengthening of RMB against IDR
4. Increasing trend of stainless steel price in China

By identifying the internal strengths and weaknesses, and external opportunities and threats in the tables above, the list of Strengths, Weaknesses, Opportunities, and Threats (SWOT) can be summarized into table 6 below. This list of factors acts as the basis of analyses in the next section.

**Table 6. List of Strengths, Weaknesses, Opportunities, and Threats (SWOT)**

<table>
<thead>
<tr>
<th>Internal Analysis</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengths</strong></td>
<td></td>
</tr>
<tr>
<td>S1. Ability to retain employees</td>
<td></td>
</tr>
<tr>
<td>S2. Deep product knowledge</td>
<td></td>
</tr>
<tr>
<td>S3. Ability to provide AGDO maintenance service</td>
<td></td>
</tr>
<tr>
<td>S4. Wide distributor/reseller network in Indonesia</td>
<td></td>
</tr>
<tr>
<td><strong>Weaknesses</strong></td>
<td></td>
</tr>
<tr>
<td>W1. Products availability depends greatly on importer and manufacturers in China</td>
<td></td>
</tr>
<tr>
<td>W2. Weak IT technology proficiency</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>External Analysis</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Opportunities</strong></td>
<td></td>
</tr>
<tr>
<td>O1. Rising consumption towards bakery products</td>
<td></td>
</tr>
<tr>
<td>O2. E-Commerce growth in Indonesia</td>
<td></td>
</tr>
<tr>
<td>O3. AGDO manufacturing potential in Indonesia</td>
<td></td>
</tr>
<tr>
<td><strong>Threats</strong></td>
<td></td>
</tr>
<tr>
<td>T1. Strict import</td>
<td></td>
</tr>
<tr>
<td>T2. Strengthening of RMB against IDR</td>
<td></td>
</tr>
<tr>
<td>T3. Rising manufacturing cost in China</td>
<td></td>
</tr>
</tbody>
</table>
**Business Solution**

Following the conceptual framework, after the list of SWOT was obtained, analyses to find the best strategy to tackle the imported AGDO price increase issue were done using TOWS matrix and Grand Strategy Matrix.

**TOWS Matrix**

The combinations of relationship which become the basis for strategy development are identified using the interaction matrix in the table 7 below. The number of each SWOT factor in the interaction matrix below refers to the number in the table 6 above. The ‘+’ indicates a match between the internal and external factors, while an ‘0’ indicates a weak or nonexistent relationship.

**Table 7. Interaction Matrix**

<table>
<thead>
<tr>
<th></th>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1 2 3 4</td>
<td>1 2</td>
</tr>
<tr>
<td><strong>Opportunities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>0 0 + +</td>
<td>0 +</td>
</tr>
<tr>
<td>2</td>
<td>0 + 0 +</td>
<td>0 0</td>
</tr>
<tr>
<td>3</td>
<td>0 + 0 +</td>
<td>+ 0</td>
</tr>
<tr>
<td><strong>Threats</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>0 + 0 0</td>
<td>+ 0</td>
</tr>
<tr>
<td>2</td>
<td>0 + 0 0</td>
<td>+ 0</td>
</tr>
<tr>
<td>3</td>
<td>0 + 0 0</td>
<td>+ 0</td>
</tr>
</tbody>
</table>

Then based on the interaction matrix in the table above, each matching combination of relationship and the corresponding strategies are listed in the table 8 below.

**Table 8. TOWS Matrix**

<table>
<thead>
<tr>
<th>Opportunities (O)</th>
<th>Strength (S)</th>
<th>Weakness (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Marketing strategy which focus on the service provided and ability to distribute to various places in Indonesia. (O1, S3, S4)</td>
<td>- Enter manufacturing industry (backward integration). By having a manufacturing company, PT XYZ do not need to depend on manufacturers in China anymore. (O3, W1)</td>
<td></td>
</tr>
<tr>
<td>- Open online store which provides detailed information and service warranty for all the products. Also, partner with local resellers by sharing profit to avoid competition and allow ease of product distribution to customers who purchased through online store. (O2, S2, S4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Enter manufacturing industry (backward integration) by taking advantage of the product knowledge. PT XYZ will then act as the marketing or distributor for the established manufacturing company. (O3, S2, S3, S4)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Threats (T)</td>
<td>- Enter manufacturing industry (backward integration) by taking advantage of the product knowledge. By having a manufacturing company, those threats will not affect PT</td>
<td></td>
</tr>
<tr>
<td></td>
<td>- Enter manufacturing industry (backward integration). (T1, T2, T3, W1)</td>
<td></td>
</tr>
</tbody>
</table>
Based on this TOWS analysis, the strategy of entering manufacturing industry (backward integration) is considered as the most favourable strategy. This strategy shows up in all four types of strategy recommendation which means that it can minimize PT XYZ’s weakness (W1) and threats (T1, T2, T3) while taking advantage of opportunity (O3) by using its strengths (S2, S4).

Grand Strategy Matrix

By performing AHP (Shown in Appendix A) on the internal and external factors, the weight of each factor was acquired. This weight values were then used to fill the IFAS and EFAS tables according to the steps provided by Wheelen and Hunger (2011). The whole score evaluation to create the tables 9 and 10 below were evaluated together with the top management of PT XYZ.

Table 9. IFAS

<table>
<thead>
<tr>
<th>Internal Factors</th>
<th>Weight</th>
<th>Rating</th>
<th>Weighted Score</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strengths</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ability to retain employees</td>
<td>0.2</td>
<td>3</td>
<td>0.6</td>
<td>Some of its long loyal employees start to leave the company</td>
</tr>
<tr>
<td>Deep product knowledge</td>
<td>0.044</td>
<td>4.5</td>
<td>0.198</td>
<td>Long experience in selling AGDO and often visit the AGDO factories in China</td>
</tr>
<tr>
<td>Ability to provide AGDO maintenance service</td>
<td>0.113</td>
<td>5</td>
<td>0.565</td>
<td>Able to do maintenance service for other AGDO brands</td>
</tr>
<tr>
<td>Wide distributor/reseller network in Indonesia</td>
<td>0.18</td>
<td>5</td>
<td>0.9</td>
<td>Maintain good relationship with all the distributors/resellers</td>
</tr>
<tr>
<td>Weaknesses</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Products availability depends greatly on importer and manufacturers</td>
<td>0.389</td>
<td>2</td>
<td>0.778</td>
<td>Starts to import from another port to reduce dependency on one importer</td>
</tr>
<tr>
<td>Weak IT technological proficiency</td>
<td>0.074</td>
<td>2</td>
<td>0.148</td>
<td>Starts to use social media and other online platform for marketing</td>
</tr>
<tr>
<td>Total scores</td>
<td>1</td>
<td></td>
<td>3.189</td>
<td></td>
</tr>
</tbody>
</table>

Table 10. EFAS

<table>
<thead>
<tr>
<th>External Factors</th>
<th>Weight</th>
<th>Rating</th>
<th>Weighted Score</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opportunities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rising consumption towards bakery products</td>
<td>0.344</td>
<td>3</td>
<td>1.032</td>
<td>Maintain stock</td>
</tr>
<tr>
<td>E-Commerce growth in</td>
<td>0.087</td>
<td>1</td>
<td>0.087</td>
<td>Lack of IT technology proficiency</td>
</tr>
</tbody>
</table>
Based on the total scores in the IFAS and EFAS tables, PT XYZ is positioned in Quadrant 4 as can be seen in the figure 7 below. Being in Quadrant 4 means that PT XYZ has strong competitive position but experiencing slow market growth. The best strategy for a company in Quadrant 4 is to perform related or unrelated diversification into more promising growth areas and to exploit the opportunities in the growing markets.

Diversification recommendation in this case can also mean integration strategy. According to David (2010), there are two types of integration strategy, vertical integration and horizontal integration. Vertical integration strategy refers to a strategy seeking ownership or increased control over distributors, suppliers, and/or competitors which are in the same supply chain while horizontal integration refers to a strategy seeking ownership of or increased control over a company’s competitors. Based on the direction of vertical integration, it can be divided into two, forward integration and backward integration. Forward integration is a strategy where a company seek ownership or increased control over its previous customers while backward integration strategy is a strategy where a company seek ownership or increased control over its distribution channels.
previous suppliers. The illustration of integration strategy direction PT XYZ can take is shown in the figure below.

Figure 8. Integration Strategy for PT XYZ

In summary, based on the analysis from Grand Strategy Matrix, due to PT XYZ’s strong competitive position but weak market growth, it needs to perform diversification strategy. This strategy is complemented by TOWS matrix analysis result which recommend entering the manufacturing industry (backward integration) as the direction of diversification because this strategy can maximize one of the external opportunities and eliminate the threats and its weakness by using its strengths. Therefore, the most optimum strategy for PT XYZ to solve the AGDO price increase issue is by performing backward integration into AGDO manufacturing industry.

Analysis of Backward Integration Strategy

To further evaluate the effectiveness of the recommended strategy which is to perform backward integration into manufacturing industry, three analyses were performed. They are competitive analysis of AGDOs manufacturing industry which was done using Porter’s Five Forces, manufacturing cost analysis which was done by calculation and estimation, and Net Present Value calculation to determine whether the investment to start a manufacturing company will yield a positive net profit.

Competitive Analysis of AGDOs Manufacturing Industry

Porter’s Five Forces analysis was done to assess the competitiveness in the AGDOs manufacturing industry and determine whether it is attractive or not to enter this industry. The analysis is shown in table 11 below.

Table 11. Porter’s Five Forces: AGDO Manufacturing Industry

<table>
<thead>
<tr>
<th>Forces</th>
<th>Analysis</th>
<th>Industry Attractiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Threat of New</td>
<td>Require considerable investment to enter the industry</td>
<td>Attractive</td>
</tr>
</tbody>
</table>
Based on the Porter’s Five Forces summary in the table above, it can be concluded that this AGDOs manufacturing industry is attractive and PT XYZ should pursue the backward integration strategy into this industry.

Manufacturing Cost Analysis

It is important that after entering the manufacturing industry, the production price per unit cannot exceed the imported price. The cost of AGDO manufactured must be lower compared to the current purchased AGDO price while maintaining the same quality. Therefore, to analyse the production cost, the manufacturing process diagram is created as can be seen in the figure 9 below.
Based on this manufacturing process, the fixed cost which include depreciation expenses, building rent, wages and other operational costs can be estimated. For the fixed cost per unit, it depends on the production capacity. The higher the production capacity, the lower the fixed cost per unit. Increasing capacity can be done by investing in more press brake machine. However, investing in more machine will also increase the depreciation expense and wage to hire another operator to operate the machine. For the variable cost it is mainly consist of material cost. Based on discussion with some of the suppliers and online research, it can be assumed that the material price would be reduced by 10%-25% depending on the quantity purchased. The more quantity that is purchased the lower the price per quantity due to economies of scale or reduction of transportation cost per quantity. Production cost per unit can be calculated by adding the fixed cost per unit and variable cost. The resulting production cost per unit graph can be seen in the figure 10 below. This graph also shows the comparison between production cost per unit and imported price of the same type of AGDO. Based on this graph, for the manufacturing company to achieve production cost lower than imported price, it should produce at certain quantity. (A detailed explanation of the manufacturing cost calculation can be seen in Appendix B)
Net Present Value (NPV)

Net Present Value is the sum of the present value (PV) of a series of present and future cash flows. In NPV calculation the time value of money is considered in the calculation, therefore it is used to determine whether an investment will result in a net profit or loss. In this case, NPV calculation was done to assess whether the investment of performing backward integration into manufacturing industry will result in a net profit. To perform the NPV calculation, some assumptions were made:
- Rate of return is 6% based on yearly deposit rate in bank.
- The manufacturing company will only produce 1 type of 2 trays AGDO
- Monthly production and sales quantity are 96 units of AGDO
- The selling price is the same with the current import price
- Marketing cost is fully borne by PT XYZ as the distributor
- It will take around 9 months to reach production stage as shown in estimated schedule table below

Table 12. Estimated Schedule to Reach Production Stage

<table>
<thead>
<tr>
<th>No.</th>
<th>Schedule</th>
<th>Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Product development</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Ramp-up</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Marketing by PT XYZ</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Start production and sales</td>
<td></td>
</tr>
</tbody>
</table>

By using the assumptions above and the estimated production cost, the NPV for four years was calculated (Calculation is shown in Appendix C). For four years operation, the NPV
resulted in positive net profit which is around Rp 1 billion. Additionally, the payback for this investment can already be achieved in third quarter of third year. This analysis result further supports the strategy to perform backward integration into the manufacturing industry.

2. CONCLUSIONS

Based on TOWS matrix and Grand Strategy Matrix analysis discussed in this paper, the backward integration strategy into the AGDO manufacturing industry is the most suitable strategy to solve the price increase issue. By expanding into manufacturing industry, PT XYZ not only will solve the threat of imported AGDO price increase, but also it can eliminate its weakness of product stock dependency towards the manufacturers in China or importer. Based on Porter’s Five Forces analysis, the industry of AGDO manufacturing can be considered attractive which further supports the backward integration strategy. In addition, referring to the manufacturing cost analysis, the production cost per unit of a manufacturing company can be lower than current imported price as long as it produces certain quantity of AGDO per month to achieve the required economies of scale. Based on schedule estimation, the NPV calculated for investment to start a manufacturing company resulted in positive net profit of Rp 1 billion in 4 years. In conclusion, based on all the analyses performed in this paper, PT XYZ should perform backward integration strategy into the manufacturing industry.

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Study of Entrepreneurial Intention  
Among Business Students

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Genoveva  
President University, Indonesia

Abstract

The number of entrepreneurs in Indonesia is left behind on another country especially in Asia such as Malaysia, Singapore, Thailand, Taiwan, and others. In fact, the growth of entrepreneur in Indonesia has develop much better than previous year. The rapid growth that occur recently has been a question of what factors that could be influencing the entrepreneur in Indonesia as well as the entrepreneurial intention of the people that focused towards President University business students from batch 2015 to 2017. The analytical method used in this research is quantitative with purposive sampling. It is found that all four variables which are family business, entrepreneurial motivation, self-efficacy, and e-commerce have significant influence towards President University business students from batch 2015 to 2017. Furthermore, 59.5% of changes was given to the dependent variable by four independent variables on this research.

Keywords: family background, entrepreneurial motivation, self-efficacy, e-commerce, entrepreneurial intention

1. INTRODUCTION

Entrepreneur has an important role to bring changes and improvement on economic in a country. Therefore, the contributions given by entrepreneurs of a country is vital because it has direct impact to the economic development, so as discussed by Baron and Shane the entrepreneurs called as the “engines of economic growth” (Baron, 2008).
However, in Indonesia, the entrepreneurship is not popular as the career choice. This statement becomes valid as the data below shows that how less Indonesian entrepreneur compare to other neighboring countries and big countries. Based on data that gathered from the survey, the number of entrepreneurs in Indonesia in 2017 is still low which is 3.1% from total population (Depkop, 2017). Actually, the number of 3.1% is better than before which is 1.6% from total population based on the data on 2013/2014 (Fauzi, 2017). Unfortunately, 3.1% is not good enough for Indonesia even though it’s already exceeds the 2% of entrepreneur from total population as a minimum requirement of a society will prosper. That is because the number of entrepreneurs in Indonesia still left behind by another country, that shown in the table below:

Table 1. Entrepreneur Ratio in 2017

<table>
<thead>
<tr>
<th>Country</th>
<th>Entrepreneur Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia</td>
<td>3.1%</td>
</tr>
<tr>
<td>Thailand</td>
<td>5%</td>
</tr>
<tr>
<td>Malaysia</td>
<td>6%</td>
</tr>
<tr>
<td>Singapore</td>
<td>7%</td>
</tr>
<tr>
<td>China</td>
<td>10%</td>
</tr>
<tr>
<td>Japan</td>
<td>11%</td>
</tr>
<tr>
<td>United States</td>
<td>12%</td>
</tr>
</tbody>
</table>

Source: Minister of Cooperatives and SME of the Republic of Indonesia, 2017

In addition, the data given below shows that the growth of nascent Indonesian entrepreneur also still left behind on other neighboring countries in Southeast Asia region.

Table 2. Nascent Entrepreneur Rate in Southeast Asia Region 2017

<table>
<thead>
<tr>
<th>Country</th>
<th>Nascent Entrepreneur Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaysia</td>
<td>15.4%</td>
</tr>
<tr>
<td>Thailand</td>
<td>10.6%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>3.6%</td>
</tr>
<tr>
<td>Taiwan</td>
<td>3.6%</td>
</tr>
<tr>
<td>Vietnam</td>
<td>2.5%</td>
</tr>
</tbody>
</table>

Source: Statista, 2017

Even though Indonesian entrepreneur still in low number compare with
another country, the growth of Indonesian entrepreneur keeps increasing year by year. The peak and the highest increase of Indonesian entrepreneur is in 2013 to 2014 and from 2015 to 2016/2017. And it keeps increasing for the following year, as the Table 1.3 shown below. So it is been question whether family background, entrepreneurial motivation, self-efficacy, and e-commerce is been factors that influence entrepreneurial intention.

<table>
<thead>
<tr>
<th>Year</th>
<th>Entrepreneur Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016/2017</td>
<td>3.1%</td>
</tr>
<tr>
<td>2015</td>
<td>1.67%</td>
</tr>
<tr>
<td>2014</td>
<td>1.56%</td>
</tr>
<tr>
<td>2013</td>
<td>0.28%</td>
</tr>
<tr>
<td>2012</td>
<td>0.18%</td>
</tr>
</tbody>
</table>

Source: Minister of Cooperatives and SME of the Republic of Indonesia, 2017

In relation, President University as one of the universities that encourage their students to have entrepreneurial intention support the government movement to increase number of entrepreneurs especially young entrepreneur. In order to produce young entrepreneur, President University providing several entrepreneurial subjects especially for Business Faculty. Moreover, a small oral survey was conducted for 11 President University students, it resulted that 5 out of 11 students claimed that entrepreneurial subject is not effective and some of them are rather directed to entrepreneurial seminar from professionals.

2. LITERATURE REVIEW

Family Background

Joseph (2012) on his journal states that some form of family background proves to be integral in a child’s development. Family enables the individual to develop a hopeful and optimistic view of life, maintaining a strong sense of confidence in their ability to overcome odds. This section on family involvement reviews (a) family involvement in academic concerns, (b) family involvement in personal/social growth, and (c) family involvement in career development and the research that supports those areas.

According to Yusuf (2012), parents who have a business will have a big influence on children to become entrepreneurs. Therefore, encouragement and motivation from the family is very important to develop a child to become a successful entrepreneur. Family members provide assistance in the process, and sometimes help in finding the capital needed.
Entrepreneurial Motivation

Entrepreneurship can be successful with high Need for Achievement will provide guidelines for self-analysis. Need for Achievement are important signs of entrepreneurial encouragement. Entrepreneurial motivation arises because there is a desire to achieve (Nugraha, 2016).

Moreover, from Nugraha (2016), the more convinced the meaning of his achievement, the more convinced that achievement must be able to push for a better achievement. In the motivation of entrepreneurship, it takes fighting power to succeed, willing to learn to see the success of others, has a strong urge to overcome all obstacles in entrepreneurship.

The role of motivation in entrepreneurship can be analogous to engine fuel. According to Leonardus (2009), adequate entrepreneurial motivation will encourage active behavior in entrepreneurship, but too strong motivation can actually negatively affect the effectiveness of the business.

Self-efficacy

Meanwhile, Baron and Byrne (2008) define self-efficacy as an evaluation of a person's ability or competence to perform a task, achieve goals, and overcome obstacles. Ghufron (2011) explained that self-efficacy refers to the belief in an individual's ability to drive motivation, cognitive abilities, and actions needed to meet the demands of the situation.

Therefore, in the relation of entrepreneurship, entrepreneurial self-efficacy maybe involved of consideration of tasks that relating to the initiation and development of new business. A different approach to define entrepreneurial efficacy is to consider the wider human competencies associated with new business development (Amlus, 2017).

E-commerce

According to Huang (2018) E-commerce is a business process of selling and buying products based on internet between small/big enterprise to individual consumer and/or companies with gadgets as a tool for business transactions. Media that can be used in e-commerce activities is the internet. E-commerce, which involves the marketing and distribution of products and services to consumers via the internet will boost massive physical startups. Hence, the operation of online shops requires support from offline order receiving, settlement, warehousing, distribution, installation, after-sales service, and other businesses (George, 2016).

E-commerce can help sellers to promote their goods online because with e-commerce it provides many conveniences for prospective consumers to buy goods they want and utilize all existing facilities (Mujiyana, 2013). E-commerce also provides new ways of conducting business, so that anyone can use the media to become entrepreneurs who are able to create and expand businesses faster and
Entrepreneurial Intention

Entrepreneurial intentions can be interpreted as a process of finding information or knowledge that can be utilized to accomplish the objectives of shaping a business (Ooi, 2011). An individual with an intention to start a business will have better readiness and progress in the business rather than people without the intention to make a business.

Entrepreneurial intention can be interpreted as a process of finding information that can be used to achieve the goal of forming a business. Entrepreneurial intentions can be looking at three things differently: personality characteristics; demographic characteristics; and environmental characteristics. Some personality factors such as the need for achievement and self-efficacy are significant predictors of entrepreneurial intention (Indarti, 2008).

3. RESEARCH METHOD

Theoretical Framework

Figure 1. Theoretical Framework

Source: Adapted from previous research, Huang (2018) and Indarti (2004)

Hypothesis
Based on the figure 1, the hypothesis in this research is presented as:

Hypothesis 1: There is influence of Family Background towards Entrepreneurial Intention
Hypothesis 2: There is influence of Entrepreneurial Motivation towards Entrepreneurial Intention

Hypothesis 3: There is influence of Self-efficacy towards Entrepreneurial Intention

Hypothesis 4: There is influence of E-commerce towards Entrepreneurial Intention

Hypothesis 5: There are simultaneously influence of family background, entrepreneurial motivation, self-efficacy, and e-commerce towards Entrepreneurial Intention

Research Instrument
To prove the hypothesis of this research, online questionnaire is used to gather all data from the survey in order to process in the research. Researchers uses Likert scale as non-comparative scales. The scale has range from 1 to 6 which is used to measuring respondent attitude whether they agree or disagree with the question or statement in the questionnaire. The questionnaire has 36 questions or statements to measure all of the variables, then it is designed with English and Indonesian languages.

Population and Sample
Sampling technique that was used in this quantitative research was non-probability sampling which means in this research, researchers selected respondents’ population that based on subjective judgement, rather than random selection.

Population of this research is known population and the respondents were selected using purposive sampling, this method uses criteria that have been selected by the researchers in choosing a sample. This research was specifically targeted to President University business students from batch 2015 to 2017. In total, there were 355 valid respondents which has responded to the online survey of 36 questions or statements.

4. RESULTS AND DISCUSSIONS

Validity and Reliability
The purpose of conducting validity and reliability test is to filter and eliminate the inappropriate questions from the questionnaire. Furthermore, validity test is used to know whether the questions in questionnaire valid or not, while the reliability test used to know the reliability of each questions in questionnaire. There are 30 questionnaires spread in this test as a sample.
The measurement value of questions’ validity is by comparing the Pearson’s Correlation Coefficient to R table. If the Pearson Correlation value is greater than R-table value, that means the statement is valid and vice versa. In this research all the questions are valid.

Furthermore, the measurement value of questions’ reliability is by having Cronbach’s Alpha value of 0.7 or Internal Consistency of Acceptable. In this research, all of the questions are reliable.

**Normality Test**

![P-Plot Diagram](image)

**Figure 2.** P-Plot Diagram  
*Source: Processed Primary data, by SPSS v.25*

Based on the figure 2, it shows the plots spread around the diagonal line and follow the direction of the diagonal line. By that indicator it can be said that the data distribution is normal, and the figure above represents Normal P-P Plot of Regression Standardized Residual.

![Histogram](image)

**Figure 3.** Histogram of Regression Standardized Residual  
*Source: Processed Primary data, by SPSS v.25*

According figure 3, it can be seen that the line on histogram illustrate bell
The figure above is normally distributed as the line curved perfectly on the center which indicates that the data have a variation of value.

**Heteroscedasticity Test**

![Heteroscedasticity Test](image)

**Figure 4.** Result of Heteroscedasticity Test  
*Source: Processed Primary data, by SPSS v.25*

The result of heteroscedasticity in figure 4 shows that the data are scattered above and below zero area and it makes no pattern as well. Hence, the researchers concluded that the regression model has no heteroscedasticity occurred.

**Multicollinearity Test**

In general, the results of multicollinearity test in this test have a positive result. VIF (Variance Inflation Factor) of every independent variable which are Family Business, Entrepreneurial Motivation, Self-efficacy, and E-commerce has value less than 10 which is good. On the other side, tolerance value of all independent variables also has a good result because all the tolerance values are more than 0.1.

**Multiple Regression**

**Table 4.** Multiple Regression Model Result

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std.</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>1.772</td>
<td>1.805</td>
<td>0.61</td>
<td>.982</td>
</tr>
<tr>
<td>X1</td>
<td>.108</td>
<td>.075</td>
<td>.264</td>
<td>1.439</td>
</tr>
<tr>
<td>X2</td>
<td>.312</td>
<td>.052</td>
<td>.662</td>
<td>6.094</td>
</tr>
<tr>
<td>X3</td>
<td>.425</td>
<td>.044</td>
<td>.132</td>
<td>9.663</td>
</tr>
<tr>
<td>X4</td>
<td>.152</td>
<td>.050</td>
<td>.132</td>
<td>3.068</td>
</tr>
</tbody>
</table>

*Source: Processed Primary data, by SPSS v.25*

From the result in Table 4, if written in the standardized form of the question, the regression is as follows:

\[ Y = 1.772 + .312 \times X2 + .425 \times X3 + .152 \times X4 \]
Where, Y is Entrepreneurial Intention, X1 is Family Background, X2 is Entrepreneurial Motivation, X3 is Self-efficacy, and X4 is E-commerce.

**T-test**

T-Test is used to determine how much the influence of independent variables (Family Background, Entrepreneurial Motivation, Self-efficacy, and E-commerce) through the dependent variable (Entrepreneurial Intention). If the significance value is less than 0.05 then the variable has significance influence towards dependent variable.

| Source: Processed Primary data, by SPSS v.25 |

**Table 5. T-Test**

<table>
<thead>
<tr>
<th>Model</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>.982</td>
<td>.327</td>
</tr>
<tr>
<td>X1</td>
<td>1.439</td>
<td>.151</td>
</tr>
<tr>
<td>X2</td>
<td>6.004</td>
<td>.000</td>
</tr>
<tr>
<td>X3</td>
<td>9.665</td>
<td>.000</td>
</tr>
<tr>
<td>X4</td>
<td>3.068</td>
<td>.002</td>
</tr>
</tbody>
</table>

Based on the t-test results, the accepted hypotheses are, as follows:

H2: There is Influences of Entrepreneurial Motivation towards Entrepreneurial Intention

H3: There is Influences of Self-efficacy towards Entrepreneurial Intention

H4: There is Influences of E-commerce towards Entrepreneurial Intention

**F-test**

The researchers using F-Test to determine whether independent variables have influence on dependent variable or not. If F value > F table, Ho rejected and Ha accepted. But, if F value < F table, then Ho accepted and Ha rejected.

| Source: Processed Primary data, by SPSS v.25 |

**Table 6. F-Test**

<table>
<thead>
<tr>
<th>ANOVA</th>
<th>Source: Processed Primary data, by SPSS v.25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>Sum of Squares</td>
</tr>
<tr>
<td>Regression</td>
<td>9333.879</td>
</tr>
<tr>
<td>Residual</td>
<td>6228.250</td>
</tr>
<tr>
<td>Total</td>
<td>15562.130</td>
</tr>
</tbody>
</table>

Based on the f-test results, the accepted hypothesis is:

H5: There is simultaneously Influences Family Background, Entrepreneurial Motivation, Self-efficacy and E-commerce towards Entrepreneurial Intention
Coefficient of Correlation & Determination

Table 7. Coefficient of Correlation (R) Coefficient of Determination (R²)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.774</td>
<td>0.600</td>
<td>0.595</td>
<td>4.21841</td>
</tr>
</tbody>
</table>

Source: Processed Primary data, by SPSS v.25

The table 7 shows the value coefficient of correlation (R) is 0.774 which has higher value than 0.5 of significant value. It means that the correlation between the independent variables and dependent variable are strongly correlating. Furthermore, the Adjusted R square value of 0.595 is obtained. The 59.5% means that dependent variable can be contributed by the independent variables, while the rest is 40.5% of motivation is influenced by other variables which are not developed in this research.

5. CONCLUSION

Based on the analysis of influence of family background, entrepreneurial motivation, self-efficacy, and e-commerce towards President University business students from batch 2015-2017, the results are as follows:
1. Family background has no significant influence on entrepreneurial intention of President University business students from batch 2015-2017.
2. Entrepreneurial motivation has significant influence on entrepreneurial intention of President University business students from batch 2015-2017.
3. Self-efficacy has significant influence on entrepreneurial intention of President University business students from batch 2015-2017.
4. E-commerce has significant influence on entrepreneurial intention of President University business students from batch 2015-2017.
5. There is simultaneous significant influence of family background, entrepreneurial motivation, self-efficacy, and e-commerce towards entrepreneurial intention of President University business students from batch 2015-2017.

Recommendation
For University

Based on the results of this research, three out of four variables which are Entrepreneurial Motivation, Self-efficacy, and E-commerce generated significant influence result on entrepreneurial intention of President University business
students from batch 2015-2017. Therefore, this research could be a feedback for President University to more improve student’s entrepreneurial motivation and self-efficacy by supporting whether through facilities and/or curriculum. Furthermore, President University also need to keep up with nowadays business trends which is e-commerce by providing more knowledge about e-commerce that will very useful for students to come up in business world.

For Future Research

For the researchers that will do this kind of research should done research with different variables and/or focus. If other researchers wants to research about entrepreneurial intention, then they should choose other variables besides family background, entrepreneurial motivation, self-efficacy, and e-commerce. Furthermore, the other researchers also can have different focus regarding the entrepreneurial intention topic such as investigating influence of e-commerce towards entrepreneurial intention. It will better to get wider population to get more accurate result of factor affecting entrepreneurial intentions.

REFERENCES


The Influence of Supportive Learning Environment towards Employee Retention – Examining the Mediator Roles of Psychological Capital and Person-Organization Fit

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Abstract

Employee turnover affects an organization in losing of cost, time and knowledge. Therefore, efforts to retain employees were much investigated in the area of human resources management, namely the provision of learning climate and knowledge sharing in the organization. This research aims to analyze the influence of Supportive Learning Environment, which consists of learning climate and knowledge sharing, towards employee retention through Person-Organization Fit and Psychological Capital as mediators. Using survey data from employees (n = 135) from a telecommunication company in Indonesia, the results demonstrate that Person-Organization Fit has significant role as mediator, while Psychological Capital does not significantly mediate the influence of Supportive Learning Environment towards employee retention.

Keywords: supportive learning environment; employee retention; person-organization fit; psychological capital.

1. INTRODUCTION

Employee turnover creates losses for the company, in terms of costs and time for recruiting and training new employees, as well as losing organizational knowledge (Tracey & Hinkin, 2008). Hence, knowledge loss makes the effort to
retain employees become important (Govaert, Kyndt, Dochy, & Baert, 2011) as employee turnover influences organization’s performance in terms of diminished numbers of employees who already have knowledge and experiences.

Due to the turnover phenomenon that occurs, a lot of researches are done to identify factors that can retain employees. For example, Kundu & Lata (2017) found that supportive work environment has significant role in predicting employee retention. It is projected that 80 percent of employees leave the company because they are looking for a better work environment (Guchait & Cho, 2010). Therefore, it is necessary to create a conducive working environment in relation to organizational support in maintaining professional employees (Ghosh & Sahney, 2011), because supportive working environment can foster the expected retention (Richman et al., 2008).

Meanwhile, Govaerts et al. (2011) and Kyndt et al. (2009) discovered that learning and working climate influence employee retention. When the organization wants to retain their employees, it is important for them to pay attention to the learning process of their employees. Accommodating employees to do something and learn more will encourage them to stay within the organization (Govaerts et al., 2011). In addition, since employees usually work and share knowledge in a group context, on a supportive learning environment within the company, knowledge sharing between colleagues needs to be developed. Knowledge sharing occurs when someone is willing to share and gain knowledge from others so that they build their competence. Plus, the socio-cognition perspective shows that employees develop social relationships, exchange knowledge, insights and experiences that can help their cognitive development (den Hooff & Weenen, 2004).

Thus, it can be summarized that to retain employees, not only a supportive work environment is needed, but more importantly a supportive learning environment within the organization. The supportive learning environment includes the learning climate (Govaerts et al., 2011) where employees can learn besides work in the organization, and also knowledge sharing between coworkers.

On the other hand, Luthans, Norman, Avolio, and Avey (2008) noticed that supportive organizational climate, if it was not supported by individual talent or capacity, did not necessarily result in performance success. Individual or employee perceptions of a supportive organizational climate can create positive psychological conditions, or also called psychological capital (Luthans et al., 2008). According to Schulz, Luthans, & Messersmith (2014), psychological capital was related to employee retention, that someone who had a high psychological capital level would also have high job satisfaction, commitment to the organization, and was likely to stay in the company. In addition, Luthans, et al. (2008) indicated that psychological capital has a mediating role in the influence of supportive organizational climate on employee outcomes, namely performance, satisfaction and commitment.
Other research on the importance of individual factors conducted by Gardner & Schermerhorn (2004), such as one’s abilities and efforts, shows the relationship between organizational support and employee performance. However, previous studies carried out in areas of supportive organizational climate resulted in an inconsistent relationship with performance (Delaney & Huselid, 1996; Becker & Gerhart, 1996). Based on these facts, it can be assumed that the self-development support obtained by the employees through learning climate and knowledge sharing summarized in the supportive learning environment will incline to make the employees stay in the organization. However, it is also necessary to look at the role of individual factors such as employee’s psychological capital in mediating the effect of supportive learning environment on employee’s tendencies to stay in the organization, because of the previous research gap by Delaney and Huselid (1996) and Becker and Gerhart (1996).

For some reasons, Human Resource Management (HRM) practices such as remuneration, training and development, career development and work-life balance can serve as effective tools to attract employees who share the same values with the organization (Presbitero, Roxas, & Chadee, 2016). In other words, when the values of employees and the company act as the center of HRM practices, there will be possibility high Person-Organization Fit to occur, which can then result in high employee retention rates. Based on Person-Organization Fit theory by Kristoff (1996), Presbitero et al. (2016) argued that the organization can utilize value matching between the employee and the organization as a strategy to strengthen HRM practices that can increase employee retention rates. In addition, Person-Organization Fit is important for knowledge sharing because there are similarities in values between the employees and the company (Cabrera & Cabrera, 2005). On this basis, the researcher puts the argument that Person-Organization Fit can function as a mediator that connects Supportive Learning Environment with higher employee retention rates.

2. LITERATURE REVIEW

Employee Retention

Abbasi & Hollman (2000) categorized employee turnover into voluntary and involuntary turnover. Involuntary turnover refers to employees’ dismissal by the company, while voluntary turnover occurs when the employees resign. Because of employee’s turnover has a detrimental impact on the company, both in terms of cost and time losses, as well as organizational knowledge’s loss (Tracey & Hinkin, 2008), the company takes some efforts to retain the employees. Such efforts called employee retention management, which is defined as the ability to retain employees that the company wants to keep longer than competitors (Johnson, 2000 in Vos & Meganck, 2008).
According to Vos & Meganck (2008), employee retention practices only succeed if they are consistent with what is considered important by the employee. Because of the effectiveness of employee retention practices tends to be influenced by employees' subjective interpretations, examining both of them together can expand the understanding of the factors that influence employee retention. Moreover, Vos & Meganck (2008) revealed the retention factors generally discussed were providing attractive financial benefit and employee benefit packages, job enrichment initiatives, career perspectives, training and development opportunities, a supportive work environment, and initiatives to improve work-life balance.

In general, researches about employees’ retention factors divided into two different perspectives, namely organization and job perspectives. George (2015) categorizing organizational perspectives which consisting of management factors (including leadership and management support factors), a conducive environment (or a positive working environment), social support (such as relationships with employers and relationships with colleagues), and self-development opportunities (the organization provides the opportunity for personal and professional development of their employees). Whereas in the work perspective, it consists of autonomy (including flexibility in making decisions), compensation, workload, and work-life balance.

One of the organizational perspective’s factor found to be able to retain employees is a learning and working climate (Govaerts et al., 2011; Kyndt et al., 2009). When the organization wants to retain their employees, it is important to pay attention to employee’s learning, because giving people the opportunity to learn more will encourage them to stay in the organization (Govaerts et al., 2011). In addition, based on the social exchange theory’s perspective, the conceptual framework developed by Naim & Lenka (2017) shows how knowledge sharing can influence the employees’ behavior response, i.e. staying in the organization.

Echols (2007) in Govaerts et al. (2008) also stated that when the employee’s learning and development process combined with good promotional and compensation actions, it would be a strong effort of employee retention. The fact that effective training and opportunities for learning and development can increase employee retention was also confirmed by other researchers such as Arnold (2005) in Govaerts et al. (2008) and Herman (2005) in Govaerts et al. (2008). Therefore, it can be concluded that employees’ learning and development can be considered as an important strategy to increase employee retention.

Supportive Learning Environment

In line with the supportive work environment proposed by Kundu & Lata (2017) which had a crucial role in retaining employees, the researcher develops a term of Supportive Learning Environment or SLE which is basically the expansion of the supportive work environment. Employee retention can occur because the supportive environment received by the employees from direct
colleagues, superiors, and other departments stimulates employee outcomes in the form of organizational commitment and job satisfaction (Luthans et al., 2008). Supportive work environment produces higher organizational commitment (Rhoades et al., 2001 in Luthans et al., 2008), and then eventually increases employee retention (Eisenberger et al., 2002 in Luthans et al., 2008).

SLE prioritizes organizational support as also included in the supportive work environment component. Organizational support in SLE is translated into the presence of a learning climate within the organization. In the literature, organizational facilitation of learning is referred to in several terms such as learning climate (Bartram et al., 1993), learning culture (Egan, Yang, & Bartlett, 2004), and learning opportunities (Billett, 2004). Culture and climate are two complex and very related concepts. Researchers who try to elaborate on the differences between climate and culture, suggest that culture includes established individual beliefs and values about the organization, while climate refers to work environment attributes that are more easily observed and thus can be measured, and has been defined as "the shared perceptions of and meaning attached to the policies, practices, and procedures employees experience and the behaviors they observe getting rewarded and that are supported and expected" (Schneider et al., 2013, p. 362).

Based on intensive review on the learning climate literature and learning facilitation literature, Nikolova et al. (2014) distinguished three aspects uncovered in most existing learning climate conceptualizations, i.e. the provision of facilitation for learning (for example, support and opportunities), awarding learning activities (such as material and non-material rewards), and tolerance for learning-related errors (or so-called error avoidance). The researcher uses these learning climate aspects as one dimension of SLE variable in this research.

In addition to learning climate, related to the learning environment in the organization, employees often gain knowledge from peers or colleagues because they work in a group context. Based on the social exchange theory, by gaining knowledge from work colleagues, resulting in an improvement in employee’s learning abilities; and when employees perceive that the organization focuses on knowledge sharing, they become motivated to learn which then increased their competence, and ultimately caused them to stay in the organization (Naim & Lenka, 2017).

Knowledge sharing aims to facilitate the development of new knowledge among members of the organization. Knowledge sharing includes the dissemination of employee’s knowledge, insights, and ideas relating to project information, preferences, coding guidelines, standard operation procedures, decision making and problem solving (King, 2007 in Naim & Lenka, 2017). As a result, the exchange of knowledge in social interactions and dialogue among members of the organization produces new knowledge and improves individual competence. Organizations that invested in competency development generated a sense of emotional attachment that lead to higher affective commitment from
employees (Ng et al., 2006 in Naim & Lenka, 2017). Affective commitment as a consequence of emotional attachment is a strong determinant of employee’s intention to stay in the organization (Ghosh et al., 2013).

Naim & Lenka (2017) operationalized knowledge sharing as employee’s participation in social interactions that involve the exchange of knowledge, experience and skills of employees throughout the organization. The measurement scale they develop consists of three dimensions that represent different domains of knowledge sharing, such as behavioral knowledge sharing (a condition where employees actually share their knowledge), knowledge donating (communicating knowledge to others), and knowledge collecting (consulting with people others to receive knowledge). In this research, the researcher uses these domains of knowledge sharing as a dimension of SLE variable.

Psychological Capital

Luthans et al. (2008) suggested that if not supported by individual talent or capacities, the supportive organizational climate does not necessarily result in performance success. Luthans et al. (2008) found the role of psychological capital as a mediator that correlates supportive organizational climate with employees’ performance. Psychological Capital or PsyCap is an individual’s positive psychological state of development and is characterized by: (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems and adversity, sustaining and bouncing back and even beyond (resiliency) to attain success (Luthans et al., 2007, p.3).

Someone who has a high level of efficacy, hope, resilience and optimism will tend to be satisfied with the work requested to accomplish and will also show a great commitment to the organization (Avey et al., 2011; Maertz & Griffeth, 2004; Meyer & Allen, 1991 in Schulz et al., 2014). Their high efficacy level help them doing a good job, which in turn supports the satisfaction that accompanies the success of doing a good job. Based on an optimistic and hopeful outlook on the future, a person will tend to identify himself with the organization and ultimately remain committed. Job satisfaction and organizational commitment are predictors of employee retention, because individuals who are satisfied with their work and committed to the success of the organization will tend not to think about leaving the work (Schulz et al., 2014).

Person – Organization Fit

Within the organization, behavior is closely related to the function of a person and the environment, or B= f (P, E), and the environment is a function of the person behaving in it, or E= f (P, B) (Schneider, 1987 in Kristof, 1996). This idea focused on organizational perspective relating to people who are attracted to,
selected by, and stay in a particular condition. While according to Arthur et al. (2006), the fit between the individual and the environment is a predictor of specified outcomes, which implies that the Person – Organization Fit (POF) is a predictor of performance and employees’ turnover.

POF is widely used in employee recruitment practices, as shown by Chatman (1991) in Kristof (1996) who examined employee recruitment practices based on compatibility between organizations and employee characteristics. In addition, the meta-analysis conducted by Verquer, Beehr, and Wagner (2003) shows that POF is also related to the intention to leave the company, job satisfaction, and organizational commitment.

POF is defined as being “the compatibility between people and organizations which occurs when: (a) at least one entity provides what the other needs, or (b) they share similar fundamental characteristics, or (c) both” (Kristof, 1996, p.45). This definition focuses on the fit of the person with the whole organization rather than a specific job, vocation, or group. It takes into account two types of relationships that may occur between an individual and an organization: the organization and the individual contribute to fulfilling the needs of the other (i.e., complementary congruence), or the organization and the individual share similar characteristics (i.e., supplementary congruence). Whether the fit is supplementary or complementary, the better the fit, the happier the employees will be (Kristof, 1996). As this study considers the extent of congruence between organizational and employee values in order to examine the influence of supportive learning environment towards employee retention, our definition of ‘fit’ is more akin to supplementary fit.

**Supportive Learning Environment, PsyCap, and Employee Retention**

Previous research by Kundu & Lata (2017) disclosed the positive effects of supportive work environment on employee retention. Govaerts, Kyndt, Dochy, & Baert (2011) suggested that learning and working climate have a large predictive value for the intention to stay, and relate negatively to the intention to leave. While Naim & Lenka (2017) proposed a conceptual framework, which implying that knowledge sharing will have a positive influence on competency development, which then influence affective commitment, and ultimately will have a positive influence on intention to stay. These studies tried to show the influence of supportive working environment, learning climate and knowledge sharing, which forming supportive learning environment, toward intention to stay or employee retention.

On the other hand, Schulz, Luthans, & Messersmith (2014) showed that PsyCap was positively related to both job satisfaction and organizational commitment, which in turn were negatively related to turnover intentions. Their research model provided preliminary information suggesting that PsyCap might affect turnover intentions through the mediational elements of job satisfaction and organizational commitment. In order to providing additional support for other findings, Luthans et
al., (2008) study’s major finding and contribution involved the role positive PsyCap may play as an important mediating link between supportive organizational climate and employee performance. Those studies showed the negative relationships between PsyCap and turnover intentions, and also demonstrated the mediating role of PsyCap in the relationship of supportive organizational climate and employee performance.

Based on previous studies above, the researcher assumes that a relationship exists between supportive learning environment and employee retention with the mediated effect of PsyCap. Thus, the following hypothesis is proposed:

H1: Supportive learning environment has a positive influence on employee retention with the mediating effect of psychological capital.

Supportive Learning Environment, POF, and Employee Retention

As stated previously, the supportive learning environment consists of learning climate and knowledge sharing. Previous literature study by Cabrera & Cabrera (2005) revealed that recruitment practices that emphasized POF were important for knowledge sharing, not only because it created a community that shares values but also because shared values can specifically incorporate the importance of learning and developing more knowledge. Along with developing more knowledge, the employees will be inclined to stay within the organization.

Considering the limitations of the study conducted by Kundu & Lata (2017), in which they suggested the avenues for mediating variables between supportive work environment and employee retention, e.g. person – organization fit. In line with this suggestion, Presbitero, Roxas, & Chadee (2016) uncovered that employee – organization value fit fully mediates the effects of HRM practices on employee retention.

Based on previous studies above, the researcher assumes that a relationship exists between supportive learning environment and employee retention with the mediated effect of POF. Thus, the following hypothesis is proposed:

H2: Supportive learning environment has a positive influence on employee retention with the mediating effect of person – organization fit.

3. METHODOLOGY

Research Model

In order to help HR managers to successfully retain talented employees, this study integrates some theoretical background in order to develop a research model, which is shown in Figure 1. to examine whether psychological capital and person – organization fit act as the mediator in the relationship between supportive learning environment and employee retention.
This study designed the questionnaire in Indonesian language, and the questionnaire items of each construct were basically adapted from previous studies. For example, the dimension of supportive learning climate, e.g. learning climate, was measured by nine items adapted from Nikolova, Ruysseveldt, De Witte, Van Dam (2014), and knowledge sharing was measured by eight items adapted from Naim & Lenka (2017). An abbreviated 12-item scale (PCQ-12) adapted from Schulz, Luthans, & Messersmith (2014) from the widely used and validated Luthans et al. (2007) 24-item PsyCap Questionnaire was utilized in order to assess PsyCap. Moreover, a total of seven questionnaire items of person – organization fit was adapted from Kim (2012) and Mostafa & Gould-Williams (2014) who focused on measuring the similarity between the individual’s values and the organization’s existing value systems or supplementary fit. In addition, 8 items of employee retention were adapted from Kundu & Lata (2017) and Govaerts, Kyndt, Dochy, & Baert (2011) based on their studies. A total of 44 questionnaire items were developed in a six-point Likert scale, rating from “1=Strongly disagree to 6=Strongly agree”. The conceptual model, which contained 4 constructs and 2 hypotheses, was tested by using a Structural Equation Model (SEM) – Lisrel 8.8 software package, and the SPSS 15 software package.

Sample
Primary data based on 135 respondents, who are employees from a telecommunication company, were gathered from on-line questionnaire. The organization was chosen based on the fact that they have low turnover rates, i.e. 0.2% and 0.1% during 2015 – 2017 (The company’s Annual Report, 2017). This organization realizes the importance of the human resources’ role, and constantly internalizes the company's values into daily activities, as well as continuously conducting development programs for their employees.

Table 1 shows that a total of 135 respondents participated in the study, most of them were aged older than 35 years old (88.1%), and had mainly worked more than 5 years (93.3%). As for departments, most of them worked in Marketing /
Sales department (25.2%) and Customer Service (25.9%). In terms of educational level, most of them had graduated from High School (40.7%) and had Bachelor degree (31.1%). The respondents mostly came from staff level (41.5%), followed by supervisor level (34.8%) and managerial level (23.7%). Furthermore, they are mostly married (93.3%).

<table>
<thead>
<tr>
<th>Table 1. Characteristics of respondents (135 respondents)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristic Category</td>
</tr>
<tr>
<td>-------------------------</td>
</tr>
<tr>
<td>Age (years old) &gt; 35</td>
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<tr>
<td>31 - 35</td>
</tr>
<tr>
<td>26 - 30</td>
</tr>
<tr>
<td>&lt; 26</td>
</tr>
<tr>
<td>Seniority (years) &gt; 5</td>
</tr>
<tr>
<td>3 - 5</td>
</tr>
<tr>
<td>1 - 2</td>
</tr>
<tr>
<td>Department</td>
</tr>
<tr>
<td>Marketing / Sales</td>
</tr>
<tr>
<td>Customer Service</td>
</tr>
<tr>
<td>Business Development</td>
</tr>
<tr>
<td>IT</td>
</tr>
<tr>
<td>Support (HR, Finance, General Support, Secretary)</td>
</tr>
<tr>
<td>Others</td>
</tr>
<tr>
<td>Education Level</td>
</tr>
<tr>
<td>High School</td>
</tr>
<tr>
<td>Diploma degree</td>
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<tr>
<td>Bachelor degree</td>
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<tr>
<td>Master degree</td>
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<tr>
<td>Job Level</td>
</tr>
<tr>
<td>Staff</td>
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<tr>
<td>Supervisor</td>
</tr>
<tr>
<td>Manager</td>
</tr>
<tr>
<td>Marital Status</td>
</tr>
<tr>
<td>Married</td>
</tr>
<tr>
<td>Single</td>
</tr>
</tbody>
</table>

4. RESULT AND DISCUSSION

H1 and H2 were tested by a Structural Equation Model (SEM). Lisrel 8.8 package software was used to test the hypotheses. Prior to that, to verify the dimensionality and validity of the research constructs in this study, several processes were conducted, including confirmatory factor analysis. A confirmatory factor analysis was first exercised to identify the dimensionality of each research
construct, and to select questionnaire items with high factor loadings. It resulted that almost all items of supportive learning environment have high loading factors, i.e. higher than 0.6, except for two items representing learning climate which have low loading factors (i.e. below 0.5). Thus, those items were no longer included in further measurement. While all items of Psychological Capital (which consists of four dimensions, i.e. efficacy, hope, resilience, optimism), person–organization fit, and employee retention have high loading factors, i.e. higher than 0.6. Thus, it can be concluded that all observed variables from the research constructs are valid because they have Standardized Loading Factor (SLF) values higher than 0.60. Table 2 presents the results of factor loadings of the supportive learning environment and person–organization fit. While Table 3 demonstrates the factor loading for psychological capital and employee retention.

Table 2 and Table 3 also show the results of the reliability measurement of all research constructs are good, as shown from all values of construct reliability (CR) which exceeds 0.70 and the value of variance extracted (VE) that exceeds 0.5 (Fornell and Larcker, 1981). Thus, it can be concluded that the measurement model of the four research constructs have good reliability.

Six criteria were used to test the goodness of fit of the research model (Hair et al., 2006) as shown in Table 4, the first of which was the p-value. If p-value is more than 0.05, it is considered to be good fit for the data. The second criteria was the Root Mean Square Error of Approximation (RMSEA). If the value is less than 0.08, it is considered to be a good fit. The third and fourth criteria were the Normed Fit Index (NFI), and the Non-Normed Fit Index (NNFI) respectively. The values of these two indices should be greater than 0.90. The fifth criteria was Standardized Root Mean Square Residual (Standardized RMR), which should be higher than 0.05, and the last criteria was Goodness of Fit Index (GFI), which should be higher than 0.90.
<table>
<thead>
<tr>
<th>Research Construct</th>
<th>Research Item</th>
<th>Factor Loading</th>
<th>CR≥0.7</th>
<th>VE≥0.5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Supportive Learning Environment</strong></td>
<td>1. My organization provides appealing educational facilities (resources)</td>
<td>0.80</td>
<td>0.97</td>
<td>0.69</td>
</tr>
<tr>
<td></td>
<td>2. My organization provides sufficient resources to develop my competences</td>
<td>0.94</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. In my organization, one receives the trainings he/she needs</td>
<td>0.83</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>4. In my organization, employees who continuously develop themselves professionally, are being rewarded</td>
<td>0.91</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Employees get quickly promoted here, if they engage in continuous professional development</td>
<td>0.91</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. In my organization, employees who make effort to learn new things, earn appreciation and respect</td>
<td>0.91</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. In my organization, employees are anxious to openly discuss work-related problems</td>
<td>0.61</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8. My colleagues share new knowledge with me</td>
<td>0.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9. My colleagues tell fellow-colleagues when learning something new</td>
<td>0.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10. My colleagues share their work-related reports and documents openly with me</td>
<td>0.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>11. My colleagues share work experiences, stories of past success and failures with me</td>
<td>0.88</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>12. My colleagues share their knowledge and expertise with me when I ask them</td>
<td>0.91</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>13. My colleagues share information and skills when fellow-colleagues ask for it</td>
<td>0.77</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>14. When I need certain knowledge, I ask colleagues about it</td>
<td>0.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>15. My colleagues frequently collect knowledge from others</td>
<td>0.83</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Person - Organization Fit</strong></td>
<td>1. The things that I value in life are very similar to the things that my organization values</td>
<td>0.80</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. My personal values match my organization’s values and culture</td>
<td>0.87</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. My organization’s values and culture provide a good fit with the things that I value in life 0.82
4. My goals are very similar to the goals of my organization 0.73
5. My values match those of current employees in this organization 0.77
6. My values match the values of my organization 0.82
7. Overall, I think I fit well my organization 0.85

Table 3. Results of factor analysis for psychological capital, and employee retention

<table>
<thead>
<tr>
<th>Research Construct</th>
<th>Research Item</th>
<th>Factor Loading</th>
<th>CR≥0.7</th>
<th>VE≥0.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Psychological Capital</td>
<td>1. I feel confident in representing my work area in meetings with management</td>
<td>0.83</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2. I feel confident contributing to discussions about the organization’s strategy</td>
<td>0.78</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>3. I feel confident presenting information to a group of colleagues</td>
<td>0.84</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>4. If I should find myself in a jam at work, I could think of many ways to get out of it</td>
<td>0.83</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Right now I see myself as being pretty successful at work</td>
<td>0.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. I can think of many ways to reach my current work goals</td>
<td>0.90</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>7. At this time, I am meeting the work goals that I have set for myself</td>
<td>0.61</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8. I can be “on my own” so to speak, at work if I have to</td>
<td>0.61</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9. I usually take stressful things at work in stride</td>
<td>0.77</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10. I can get through difficult times at work because I’ve experienced difficulty before</td>
<td>0.69</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>11. I always look on the bright side of things regarding my job</td>
<td>0.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>12. I am optimistic about what will happen to me in the future as it pertains to work</td>
<td>0.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Employee Retention</td>
<td>1. I am likely to stay in this organization for next five years</td>
<td>0.70</td>
<td>0.91</td>
<td>0.57</td>
</tr>
<tr>
<td></td>
<td>2. I will not change this organization easily</td>
<td>0.74</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3. For me, this organization is the best of all possible organization to work for</td>
<td>0.75</td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>4. Within this company my work gives me satisfaction</td>
<td>0.78</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. I see a future for myself in this company</td>
<td>0.88</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. If it were up to me, I will definitely be working for this company for the next five years</td>
<td>0.67</td>
<td></td>
<td></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. The work I am doing is very important to me</td>
<td>0.80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. I love working for this company</td>
<td>0.76</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 4. Goodness of Fit Index (GOFI) of Measurement Model

<table>
<thead>
<tr>
<th>GOFI</th>
<th>GOFI Value</th>
<th>Result Value</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>p-value</td>
<td>≥0.05</td>
<td>1.00</td>
<td>Good</td>
</tr>
<tr>
<td>Root Mean Square Error of</td>
<td>≤0.08</td>
<td>0.00</td>
<td>Good</td>
</tr>
<tr>
<td>Approximation (RMSEA)</td>
<td>≥0.90</td>
<td>1.00</td>
<td>Good</td>
</tr>
<tr>
<td>Normed Fit Index (NFI)</td>
<td>≥0.90</td>
<td>1.02</td>
<td>Good</td>
</tr>
<tr>
<td>Non-Normed Fit Index (NNFI)</td>
<td>≥0.90</td>
<td>0.98</td>
<td>Good</td>
</tr>
<tr>
<td>Standardized Root Mean Square</td>
<td>≥0.05</td>
<td>0.08</td>
<td>Good</td>
</tr>
<tr>
<td>Residual (RMR)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goodness of Fit Index (GFI)</td>
<td>≥0.90</td>
<td>0.98</td>
<td>Good</td>
</tr>
</tbody>
</table>

After the measurement model of a valid and reliable research model is obtained, the next step is to analyze the structural model of the research model. This analysis is related to the testing of research hypotheses. The research hypothesis is accepted if the absolute number of t-values is greater than 1.96 with coefficient marks in accordance with the proposed hypothesis (positive or negative). From processing data with Structural Equation Modeling (SEM) using the Lisrel 8.8 package software, a Path Diagram is obtained from the t-values of the Structural Model as shown in Figure 2.

Figure 2. Path Diagram of Structural Model of the Research Model

From the measurement of structural model of the research model, it was found that the supportive learning environment (SLE) influences employee retention (ER) through person – organization fit/POF (t-values of SLE to POF is 24.03; and t-values of POF to ER is 2.84). SLE to Psychological Capital/PC has t-values of
19.95, however, PC to ER has negative t-values, i.e. -0.05. A summary of the results of the significance tests is shown in table 5.

**Table 5. Significance Test Result**

<table>
<thead>
<tr>
<th>Relationship between latent variables</th>
<th>t-values</th>
<th>Coefficient</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Supportive learning environment --&gt; (+) psychological capital --&gt; (+) employee retention</td>
<td>19.95</td>
<td>0.92</td>
<td>Not significantly positive</td>
</tr>
<tr>
<td></td>
<td>-0.05</td>
<td>-0.01</td>
<td></td>
</tr>
<tr>
<td>H2: Supportive learning environment --&gt; (+) person-organization fit --&gt; (+) employee retention</td>
<td>24.03</td>
<td>1.00</td>
<td>Significantly Positive</td>
</tr>
<tr>
<td></td>
<td>2.84</td>
<td>1.01</td>
<td></td>
</tr>
</tbody>
</table>

Based on t-values of psychological capital to employee retention which showed below 1.96 and coefficient mark is negative, it can be concluded that H1 is not supported. While the relationship between supportive learning environment with person – organization fit and employee retention all showing t-values which are greater than 1.96 and with positive coefficient mark. Thus, H2 is supported.

Several conclusions can be drawn based upon the aforementioned results. First, supportive learning environment is positively influencing the employee retention through the mediation of person – organization fit. This finding is in line with those of previous studies, such as Presbitero, Roxas, & Chadee (2016), who discovered the role of person – organization fit in mediating the effect of HRM practices on employee retention. It is also supporting the finding by Cabrera & Cabrera (2005) regarding person – organization fit which was important for knowledge sharing in order to develop competencies which then eventually caused employee retention. Second, H1 which is not supported in this study, implies dissimilarity with Luthans et al., (2008) major finding that psychological capital may mediate the relationship between supportive organizational climate and employees’ performance.

It is interesting to find out that psychological capital does not mediate the relationship of supportive learning environment and employee retention. This result probably because of the research respondents who aged over 35 and more than 5 years of service (seniority), with the supportive learning environment that has been formed within the organization, they feel comfortable working in the company so they stay with the company. However, the characteristics of the respondents of this study, who mostly from high school education background, differ from previous studies which had a minimum bachelor degree (e.g. Luthans et al., 2008; Heled, Somech, & Waters, 2016; Park et al., 2017), This educational
difference is likely to make a difference in terms of psychological capital level. Thus, in this study, the psychological capital does not really relate with employee retention, nor mediate the relationship of supportive learning environment and employee retention.

5. CONCLUSION AND RECOMMENDATION

A practical implication arises from this study results. This study provides evidence of the important role that person – organization fit may act as positive impact for the employee retention as a result of the existence of supporting learning environment. This result may serve as a hint for the human resources practitioners to look beyond traditional solutions (e.g. compensation and benefits) to examine factors that are likely to influence the retention rates of the employees.

This research has some limitations, for example, the survey questionnaire did not consist of sufficient items to measure psychological capital. It would be better if the research used 24-item PsyCap Questionnaire (Luthans et al., 2007) rather than an abbreviated 12-item scale (PCQ-12) adapted from Schulz, Luthans, & Messersmith (2014) in order to examine more complete psychological capital measurement. Moreover, additional limitation of the current study is that the homogeneous sample which came from a single company. Future research on psychological capital, supportive learning environment, or person – organization fit in various company may complete the study to provide insights to the employee retention.

REFERENCES


The Influence of Risk Management and Good Corporate Governance toward Profitability of Indonesia Conventional Banks Category III

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**Abstract**

This research aims to find out the influence of risk management and corporate governance towards profitability of Indonesia conventional banks category III. The profitability is measured by Return on Assets (ROA). The selected variables were credit risk proxied by Non-Performing Loan ratio (NPL), liquidity risk proxied by Loan to Deposit ratio (LDR), market risk proxied by Net Interest Margin (NIM), operational risk proxied by Operating Expense to Operating Income (OEOI), and GCG score. This research uses secondary data obtained from various eligible sources with annual period from 2011-2017, and constructed into panel data. The data analysed through multiple regression method by a statistical software. Ten banks category III were included in this research. The results show that credit risk and liquidity risk have no significant influence towards profitability. Market risk (NIM) has a positive significant influence towards profitability, while operational risk (OEOI) and GCG score have a negative significant influence towards profitability.

**Keywords**: profitability; credit risk; market risk; liquidity risk; operational risk; good corporate governance

1. **INTRODUCTION**

The economic development of a country is mainly caused by refined financial system. Bank industry as the most essential thing of a financial system has many
influences to a country’s economic condition (Dezfouli, et al., 2014). Acquiring and distributing funds are the principal activity of a bank, while offering other products and services is the supporting activity. (Badawi, 2017). Therefore, the banking industry possessed a vital role in maintaining the economic stability by being a financial intermediary institution that distributed funds from the surplus parties to the deficit parties.

In the banks’ business process, risk is a factor that certainly cannot be completely avoided or eliminated. It is due to the nature of banks' business as an intermediary institution. According to Bank Indonesia Regulation No. 13/24/DPNP, there are eight types of risks that must be aware of, including credit risk, liquidity risk, operational risk, market risk, legal risk, reputation risk, compliance risk, and strategic risk. These risks could affect the banks’ performance on a various magnitudes and various levels of severity. Therefore, risk management is very important for the banks to be able to mitigate their risks and achieve stability.

Other than the risk management, Good Corporate Governance (GCG) is also one important factor that should be considered in the banking industry. The lack of corporate governance has brought a tremendous loss in the past. As quoted by Iramani, et al., (2018) the IMF stated that the Asian crisis that occurred in 1998 was the outcome of poor corporate governance. In Indonesia itself, Bank Indonesia encouraged the implementation of GCG in 2007 by releasing Bank Indonesia Regulation No.9/12/DPNP. GCG is very crucial for business institution for it could prevent financial fraud, and maintain the banks’ soundness and the country’s economic stability (Yeoh, 2007; Andres & Vallelado, 2008). Therefore, both risk management and GCG are equally important and can affect the banks’ performance and soundness. A stable performance and soundness would eventually improve the banking industry as a whole, which also leads to sustainable economic development (Widiarti, et al., 2015). One way to determine the performance of a bank is by looking at its profitability, which can be proxied by Return on Assets (ROA). The ROA of Indonesian commercial bank for the period 2014-2017 is portrayed by Figure 1. As illustrated by Figure 1, the ROA of Indonesian conventional banks during the period 2011-2017 shows some fluctuations. The ROA was stable from 2011-2013, however it started to decline in 2014 until 2016. In 2017, the ROA is increased; which is the first time it happened since 2012. The fluctuation of ROA is also happened specifically in the conventional banks Category III. From Figure 2 it is shown that the ROA of banks category III was constantly the lowest compared to other categories, especially in 2015 and 2016. Due to these reasons, conventional banks Category III was the most interesting for the researcher to observe. Considering the importance of risk management and GCG, further research is needed to examine how these factors affect profitability.
This research is focused on conventional banks Category III in Indonesia. Moreover, aside from GCG, four type of risks that represents risk management are also covered in this study, including credit risk, liquidity risk, operational risk, and market risk. The objectives of this study are to determine the significant variables that affect the profitability of conventional banks Category III in Indonesia, and to examine whether risk management and GCG affect profitability simultaneously.

![Figure 1. ROA of Indonesia Conventional Banks based on Year (2014-2017)](image1)

![Figure 2. ROA of Indonesia Conventional Banks Based on the Category or BUKU](image2)

2. LITERATURE REVIEW

**Banks**

According to the financial intermediation of banking theory, bank is a business entity that collects funds from the public in form of deposits, and providing the funds to the public in form of credits and/or other forms, with the objective to improve the standard of living of the people in general (Von Mises in Werner, 2016; Matthew and Thompson, 2006). While loans can be made by other
institutions aside from banks, but collecting funds or deposits is a unique activity that can be done only by banks (Admati and Hellwig, 2012).

The conventional banks in Indonesia are divided into four different categories that are based on their business activities or BUKU (Bank Umum berdasarkan Kegiatan Usaha). According to Bank Indonesia Regulation Number 14/26/PBI/2012, below are the classification of conventional banks’ business activities:

- BUKU I: banks with common equity less than IDR 1 trillion
- BUKU II: banks with common equity between IDR 1 trillion and IDR 5 trillion
- BUKU III: banks with common equity between IDR 5 trillion and IDR 30 trillion
- BUKU IV: banks with common equity more than IDR 30 trillion.

**Profitability**

Profitability is defined as the funds that a firm can generate from its assets or resources. It also refers to the firm’s ability to gain more income from their business process for less expense (Muya & Gathogo, 2016). Most business institution’s objective is to create profit maximization, which means that they use as less cost as possible to create as many incomes as possible. Profitability represent the banks’ management efficiency in transforming the firm’s assets into profits (Anene, 2014).

Profitability in a business is an aspect that attracts investors, and it is also a determinant of the business’ long term survival (Farah & Nina, 2016). In the banking industry, profitability portrays the banks’ ability to increase profit from the credits given to the customers. Thus, profitability also indicates the banks’ level of healthiness; as it means that bank could generate more profit from its operation. Banking industry is getting more and more competitive over the years, and profitability is a crucial factor for banks’ operation and performance, generate return for shareholders, and also the nation’s economic development as a whole (Tariq, et al., 2014).

To analyze a firm’s profitability, Return on Asset (ROA) ratio is widely used. ROA ratio is calculated by dividing the profit or loss of the year by the total asset. This ratio represents the banks’ ability to generate profit from its asset.

**Risk Management**

Risk is highly related with uncertainty. Klinke and Renn (2002) stated that uncertainty is the underlying cause of risk. Siahaan (2013) stated that risk is a situation that would most likely result to danger. Nevertheless, risk can also be defined as divergence of an expected outcome, which includes threat as well as opportunity (Adeusi et al., 2014). The banking industry was exposed to high risk, as the percentage of borrowed funds or deposits was even higher than the owner’s
equity. (Owojori et al., 2011). Some studies also conform that banking industry have to deal with financial and non-financial risks. (Wood & Kellman, 2013; Shafiq & Nasr, 2010). The difficulties of these risks quickly changed time over time, make them even more threatening for the banks’ operation and survival. Thus, the application of a proper risk management is necessary for banks to understand the various type of risks it’s exposed to.

The study by Adeusi, et al., (2013) about banks in Nigeria shows that risk management and bank performance have a significant relationship. Risk management that is proxied by managed funds, bad and doubt loans, and debt-to-equity ratio have a positive significant relationship to financial performance which is proxied by ROA and ROE. On the other hand, the study by Olamide, et al., (2015) reveals that there is no significant relationship between risk management and bank performance.

According to Bank Indonesia Regulation No.5/8/PBI/2003, there are eight types of risk which include credit risk, liquidity risk, market risk, operational risk, legal risk, reputation risk, strategic risk, and compliance risk. This study only covered four types of risks that are countable, which are credit risk, liquidity risk, market risk, and operational risk.

Credit risk is a major challenge that banks must face, because credit risk is the risk that can easily and significantly impact bank failure (Duaka, 2015). Credit risk caused by many different reasons, both externally and internally. Some of those reasons are: bad management and internal control, improper laws, reckless lending, poor supervision from central bank, lack in credit assessment, and so on (Breuer, et al., 2010; Nijsken & Wagner, 2011).

A study by Wisdom, et al., (2018) proves that credit risk management—which is represented with NPL and CAR, have a significant and positive relationship with bank performance, which is proxied by ROA. Kolapo, et al., (2012) research is come to a conclusion that credit risk has a negative significant relationship with bank’s profitability, which means that an increase in credit risk would reduce the banks’ profitability. The findings of Kolapo, et al., (2012) is also aligned with the findings of Winarso and Salim (2017), Attar and Shabri (2014), and Purwoko and Sudiyatno (2013). However, findings of Sukarno and Syaichu (2006), and Natalia (2015) revealed that credit risk has no significant influence towards banks’ profitability.

The Basel Committee (2008) stated that liquidity risk is a chance for a bank to suffer loss because of its inability to make their obligations on time. Moreover, banks are exposed to liquidity risk because of their business nature; banks involve in transforming liquid funds (deposits) to illiquid assets (loans) and rely on their maturity mismatch. They also argued that liquidity management is essential for banks, because an untreated liquidity risk in one institution can affect the whole system. An effective liquidity risk management could provide certainty that banks would be able to meet its obligations.
Findings of Bordeleau & Graham (2010) revealed that liquidity and bank performance have a non-linear relationship; in which the liquid assets held by the banks could improve the banks’ performance only to some extent, but beyond that, it could reduce the banks’ performance in terms of profitability. Liquidity risk which proxied by loan-to-deposit ratio (LDR) has a positive significant influence towards profitability that proxied by ROA (Sukarno and Syaichu, 2006). However, Winarso and Salim (2017), Attar and Shabri (2014), Natalia (2015), as well as Purwoko and Sudiyatno (2013) find that there is no significant influence of liquidity risk towards profitability.

Bank Indonesia (2003) described market risk as a risk of losses that occurs because of the market price fluctuation which impact to the on and off balance sheet items. Net Interest Margin (NIM) could proxy the market risk, as this ratio include interest rate as its component. Several studies found that market risk proxied by NIM has a positive significant influence towards profitability (Natalia, 2015; Purwoko and Sudiyatno, 2013). On the other hand, Winarso and Salim (2017) stated that there is no influence of market risk towards profitability.

The Basel Committee (2011) described operational risk as a risk of loss that caused by inadequate or poor internal process, people and systems within the company, or caused by another external events. Operational risk is very much influenced by multiple factors, such as banks’ structure complexity, the business activity and units spread, variety of products and services, number of employees and their capability, and also the risk management culture. Previous researches shows that operational risk has a negative relationship with bank performance. Al-Tamimi, et al., (2015) explained that operational risk and bank performance has a significant negative relationship. Aruwa & Musa (2014) findings were also in accordance, their research shows that a significant negative relationship exists between operational risk and bank performance. Francis & Hess (2004) study reveals that there is an inverse relationship on bank performance and operational risk.

**Good Corporate Governance**

The Cadbury Committee described corporate governance as a mechanism to balance the power of an institution and also its accountability (Aulia, 2013). Shleifer & Vishny (in Pearl-Kumah, et al., 2014) took another approach to define corporate governance; they described it as a system where investors were guaranteed of getting a return of their investment from the corporate. Corporate governance system strives to maximize the firm value, in order to provide benefits for all stakeholders.

Indonesian government started to stress the application of corporate governance since Bank Indonesia published a new regulation (PBI) No. 8/4/PBI/2006. Bank Indonesia seems to realize that corporate governance is very crucial in the banking industry, because it could prevent financial fraud that could
lead to banks’ bankruptcy and financial crisis, and maintain the stability of the nation’s macroeconomic (Yeoh, 2007; Andres & Vallelado, 2008). Bank Indonesia Regulation No. 15/15/DPNP/2013 stated that banks are obligated to do a self-assessment Good Corporate Governance (GCG) scoring periodically. The GCG scoring can be seen in Appendix A.

Several studies portray the positive relationship of corporate governance and banks’ performance. Tomar & Bino (2012) reveals in their research that corporate governance does have a strong influence on banks’ profitability. Halimatusadiah, et al., (2015) show that corporate governance which is measure by CGPI has a positive and significant relationship with banks’ profitability (ROA). Another research by Fanta (2013) reveals that corporate governance in terms of board size and audit committee have a negative significant affect towards banks’ profitability (ROA and ROE); while external corporate governance (measured by capital adequacy ratio) has a positive significant affect towards the profitability.

3. RESULT AND DISCUSSION

This chapter examines the results of the data analysis that was conducted through multiple regression analysis. This study utilized 70 units of observation, with 10 cross-sections data on annual basis for 7 periods (2011-2017). The data were taken from 10 banks, including Bank Danamon, Bank Bukopin, Bank BTPN, Bank Maybank, Bank BTN, Bank Permata, Bank OCBC NISP, Bank Mega, Bank Mayapada, and Bank BJB. The variables in this study are non-performing loan ratio (NPL), loan to deposit ratio (LDR), net interest margin ratio (NIM), operating expense to operating income ratio (OEOI), and GCG score.

Descriptive Analysis

Based on Appendix B, the descriptive analysis can be explained as follow:

- The average of Return on Asset (Y) is 0.018 with the standard deviation 0.012, means that the data is mostly spread within the range of 0.18 ± 0.012. The lowest return on asset is -0.052 from Bank Permata in 2016; as it faced loss in that year, and the highest return on asset is 0.048 from BTPN in 2012.
- The average of Non-performing loan ratio or NPL (X1) is 0.022 with the standard deviation 0.015, means that the data is mostly spread within the range of 0.022 ± 0.015. The lowest NPL is 0.003 from Bank Mayapada in 2015, and the highest is 0.101 from Bank Permata in 2016.
- The average of Loan to deposit ratio or LDR (X2) is 0.865 with the standard deviation 0.110, means that the data is spread within the range of 0.865 ± 0.110. The lowest LDR is 0.537 from Bank Mega in 2012 and the highest is 1.022 from Bank BTN in 2017.
- The average of Net interest margin or NIM (X3) is 0.057 with the standard deviation 0.024, means that the data is mostly spread within the range of 0.057.
± 0.024. The lowest NIM is 0.033 from Bank Bukopin in 2017 and the highest is 0.117 from Bank BTPN in 2012.

- The average of OEOI (X4) is 0.692 with the standard deviation 0.193, means that the data is mostly spread at 0.692 ± 0.193. The lowest OEOI is 0.308 from Bank Mega in 2011 and the highest is 2.060 from Bank Permata in 2016.

- The average of GCG score (X5) is 1.922 with the standard deviation 0.439, means that the data is mostly spread within the range of 1.922 ± 0.439. The lowest GCG score is 1 from May bank in 2011 and 2012, and the highest is 3 from Bank BTN in 2013 and 2017, Bank Permata in 2016, and Bank BJB in 2013.

Data Transformation from Ordinal into Interval

In this research, the GCG Score data is in form of ordinal data. As shown in Appendix A, it is categorized into 1 – 5, 1 is the best and 5 is the worst (Bank Indonesia. 2006). In order to be able to analyse it, the result has to transform it into interval data. Method of Successive Interval (MSI) is the method that researchers adopt to transform the data. The result can be seen in Appendix C.

Panel Data Regression Model

This research utilized a random effect model. The decision is based on the result of the tests below:

- The Chow test result in Appendix D.1 shows that the Chi-square probability is 0.000, which is less than 0.05. This means the appropriate model is fixed effect model.

- The result of Hausman test in Appendix D.2 shows that the Chi-square probability is 0.3271, which is more than 0.05. It means that random effect model is the appropriate model to use in this research.

Classical Assumption Tests.

Normality Test

Normality test aimed to test whether the residual value in the regression model were normally distributed or not. The normality can be shown through Jarque-Bera probability value. The probability value for a normally distributed data should be more than 5% or 0.05 (Ghozali, 2011). In this study, researchers transform the data using natural logarithm (ln) and the data become a normally distributed. According to Ghozali (2011), transforming the data into natural logarithm is believed to be able to normalize the distribution of data. The result in Appendix E shows that the data in this study is normally distributed (0.7776 > 0.05)
**Multicollinearity Test**

Multicollinearity is one thing that should be avoided in a good regression model. Multicollinearity problem arise when a high correlation exists in between the independent variables. Correlation matrix is used to detect any multicollinearity problem in the data. The data is said to be free from multicollinearity if the correlation between variable is less than \(|0.7|\) (Gujarati, 2004). Based on the result in Appendix F, all the independent variables show a correlation value of less than \(|0.7|\). Thus, the result shows that the data is free from multicollinearity problem.

**Heteroscedasticity Test**

Heteroscedasticity exists when there is a correlation or relationship pattern between the residual of one variables to other variables in the regression model. A good regression model should have no heteroscedasticity problem; in other words, the model should be homoscedastic. The researchers used White test to identify heteroscedasticity problem that may occur in the data. The regression model is homoscedastic if the Chi-square probability is more than 0.05. The result in Appendix G showed that the Chi-square is 0.629, which is more than 0.05. This suggest that the regression model is free from heteroscedasticity problem, and therefore it is a proper model.

**Autocorrelation Test**

Autocorrelation is one thing that should be avoided in order to get a good regression model. It occurs when there is correlation between the variables within a set of data. There were some autocorrelation tests that can be utilized, and one of them is the Durbin-Watson test. The Durbin-Watson should be between -2 and +2 in order for the data to be free from autocorrelation problem (Santoso, 2010). Based on Appendix H, the result of Durbin-Watson test is 0.731. It falls between -2 and +2. This illustrates that the autocorrelation problem is not exist in this regression model.

**Multiple Regression Test**

Multiple regression test was processed with statistical software program. Appendix I shows the result of the test. The equation of the multiple regression model is as follows:

\[
Y = -1.714 + 0.036X_1 - 0.211X_2 + 0.999X_3 - 2.023X_4 - 0.101X_5
\]

**T-Test Result and Interpretation**

\[H_{01} = \text{there is no significant influence of credit risk towards banks’ profitability}\]
Credit risk which proxied by non-performing loans ratio or NPL (X1) has a probability value of more than 0.05 (0.328 > 0.05); means that \( H_{o1} \) is accepted. Based on the study by Kolapo, et al (2012), credit risk has a negative significant influence towards ROA, which is a contrary with this study. High NPL means that the banks have more problematic credits that potentially decreased the banks’ interest income. The result of multiple regression showed that the coefficient of NPL (X1) is the smallest of all variables. Meaning that aside from the insignificance that illustrated by the probability value > 0.05, the small coefficient also shows that this variable is indeed not significant towards ROA. The insignificance relation between NPL and ROA is mainly caused by the Indonesian banking regulation that stated a good NPL should be lower than 5%. Most of the category III banks did well on managing their NPL, as the NPL data also shows that the range of data is mostly under 5%. The result in this study is also supported with the previous research. Natalia (2015) found that NPL has no significant influence towards ROA. Thus, there is no significant influence of credit risk (NPL) towards profitability (ROA).

\( H_{o2} = \) there is no significant influence of liquidity risk towards banks’ profitability

Liquidity risk which proxied by loan to deposit ratio or LDR (X2) has a probability value of more than 0.05 (0.260 > 0.05); means that \( H_{o2} \) is accepted. A study by Harun (2016) discovered that LDR is highly related with NPL. Harun (2016) explained that when LDR is increased, the probability of non-performing loan to exist is also increased, therefore make a higher NPL. In this research itself, the NPL shows no significant influence because the data shows that it is relatively low (under 5%). This relationship between LDR and NPL could also explained the phenomenon in this study which both LDR and NPL have no significant influence. Bank Indonesia regulation stated that LDR should be between 80% – 100%, and the data is also between that numbers. Besides that, during the year of observation, the value of LDR and ROA were defying the theory. LDR and ROA supposedly have a positive influence towards ROA. However, the data shows that when ROA decreased significantly, LDR exactly increased, and vice versa.

The result in this study is also supported with the previous research by Winarso and Salim (2017), and Natalia (2015) in which they stated that that LDR has no significant effect towards ROA.

\( H_{o3} = \) there is no significant influence of market risk towards banks’ profitability

Market risk which proxied by net interest margin or NIM (X3) has a probability value of less than 0.05 (0.000 < 0.05); means the \( H_{o3} \) is rejected and \( H_{a3} \) is accepted. The coefficient value of 0.9999 indicates that NIM has a positive, significant influence on ROA.
According to Mansyur (2018) NIM has a positive significant relationship towards ROA. NIM shows the ratio of net interest income to its earning asset. The positive relation between NIM and ROA means that the increase of net interest income that is gained from earning asset would lead to an increase in return on asset. Moreover, net interest income is under income statement, as well as EBIT (Earnings before Interest and Tax) which is a component of ROA. So it is clear how these two variable influencing each other. The result in this study is also supported by previous research. Purwoko and Sudiyatno (2013) found that NIM has a positive significant effect towards ROA. Natalia (2015) found the same result as well, there is a positive significant effect towards ROA. That being said, higher NIM would lead to higher profitability.

$H_{04} = \text{there is no significant influence of operational risk towards banks’ profitability}$

Operational risk which proxied by OEOI (X4) has a probability value of less than 0.05 (0.000 < 0.05); means that $H_{04}$ is rejected and $H_{a4}$ is accepted. The coefficient value of OEOI is -2.0353, indicating that OEOI has a negative significant influence towards ROA. This variable is the highest coefficient value, meaning that it has the most significant effect among all other variables. According to Aruwa & Musa (2014), OEOI influence ROA in a negative significant way. In other words, the theory stated that OEOI and ROA has an inverse relationship. OEOI is the ratio of operational expense to operational income, which also illustrates the banks’ efficiency on doing their business operations. Lower OEOI shows that the operational expense is also low, meaning that it is more efficient. When bank is more efficient in doing their business operations, it lowers the chance of operational risk. Thus, the higher OEOI leads to lower ROA, as the expense would decrease the component of ROA which is EBIT. The result in this study is also supported by previous research. Winarso and Salim (2017) found that OEOI has a negative significant effect towards ROA, meaning that higher value of OEOI would lower the value of ROA. Attar and Shabri (2014) also found a negative significant relationship between OEOI and ROA. Therefore, higher operational risk would decrease the profitability

$H_{a5} = \text{there is no significant influence of GCG score towards banks’ profitability}$

GCG score (X5) has a probability value of less than 0.05 (0.007 < 0.05); means that $H_{05}$ is rejected and $H_{a5}$ is accepted. The coefficient value of GCG is -0.1616, indicating that GCG score has a negative significant influence towards ROA. Based on Bank Indonesia Regulation No.8/4/PBI/2006, higher GCG scores shows a worse company management, which eventually leads to bad financial performance. On the other hand, a low GCG score shows a good company management and a goof financial performance. Thus the result in this study is in line with the theory, as the result shows that GCG score has a negative significant
influence towards ROA. The result in this study is also in line with the previous study by Nizamullah, et al., (2014) which stated that GCG negatively impact ROA. However, it is contradictory with Tjondro and Wilopo (2011) study that found GCG has a positive significant influence towards ROA.

F-Test

F-test is being done to see whether all independent variables have a simultaneous significant influence towards the dependent variable (Gujarati, 2004). If the probability of F-statistic is less than 0.05, it means that a simultaneous significant influence exists between the independent and dependent variables. On the other hand, a probability value of F-statistic more than 0.05 indicates that there is no influence. Based on the result in Appendix I, it illustrates that the probability value is less than 0.05 (0.000<0.05). It means that Ho is rejected and Ha is accepted. This shows that there is a simultaneous significant influence of non-performing loan ratio, loan to deposit ratio, net interest margin, OEOI, and good corporate governance towards return of assets.

Coefficient of Determination (Adjusted $R^2$)

As displayed by Appendix I, the result of adjusted R-squared is 0.8046 or 80.46%. It means that the variation of independent variables, which were credit risk, liquidity risk, market risk, operational risk and good corporate governance can explain 80.46% of the variation of return on assets variation. The rest of 19.54% is explained by other factors which were not examined in this research.

4. CONCLUSION AND RECOMMENDATION

Based on the result of multiple regression test, it can be concluded that the variables which have a significant influence towards profitability are market risk, operational risk, and GCG score. Market risk proxied by net interest margin (NIM) has a positive significant influence, while operational risk proxied by operating expense to operating income (OEOI) and GCG score have a negative significant influence. On the other hand, credit risk and liquidity risk have no significant influence towards profitability. It means that both credit risk and liquidity risk do not necessarily explain the changes of profitability. Among all variables, operational risk appeared to be the variable that has the most influence towards profitability. F-test result shows that all independent variables in this study have a simultaneous significant influence towards the dependent variable, which is profitability. The variation of independent variables altogether can explain as much as 80.46% of the variation of banks' profitability, while the remaining 19.54% is influenced by other factors that were not examined in this study.
For future research, it is suggested to add more period of observation time, since it may lead to a better results. Moreover, in order to examine the risk management, it is better to consider adding variables based on the BI’s statement regarding the types of risks in banks; legal risk, strategic risk, compliance risk, and reputation risk. Additionally, or future research, the GCG score could be taken from external party such as IICG in order to avoid bias that may interfere in the self-assessment GCG score.

REFERENCES


The Effect of Financial Performance and Corporate Social Responsibility toward the Firm Value of Commercial Banks Category in Indonesia

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Abstract

This research aims to determine the factors that affect firm value proxy by Tobin's Q ratio. The determinants factors used for financial performance in this research are non-performing loans, loan to deposit ratio, debt to equity ratio, return on equity along with other factors consist of firm size, and corporate social responsibility. Multiple regression panel data method is chosen to be used in this research with 10 banks that fulfill the criteria from category BUKU III during the period 2011 until 2017 that listed on Indonesia Stock Exchange. The results revealed that return on equity and firm size have a positive significant influence toward firm value while non-performing loans, loan to deposit ratio, debt to equity ratio, and corporate social responsibility have no significant influence toward firm value. However, all the independent variables have simultaneously significant influence toward firm value.

Keywords: firm value, financial performance, firm size, corporate social responsibility

1. INTRODUCTION

The banking industry has an important role in Indonesia's economic development. The banking sector included as one of the sources of funding that has a large influence on the Indonesian economy (Hakim and Sugianto, 2018). Banking is one of the pillars of Indonesia's economic development, especially in facing the era of trade and globalization, the function of banking as an intermediary between parties who have a surplus with those who have a lack of funds and as agents of development (Wijaya, 2007).

The development of the banking industry in Indonesia is increase. The increase in loan needs credit demand continue to increase so that it implies that the banking industry continues to grow. In figure 1.1 it can be seen the development of the banking industry increase during period 2013-2016 through indicators which consist of the distribution of funds, a source of funds, and total assets (Bank Indonesia, 2018).
The development in the banking industry makes competition among banks in the banking business. Therefore, the banks must increase their performance so that the goals can be achieved. One of the goals of establishing a company is to increase the prosperity of the owners or shareholders by increasing the value of the company (Salvatore, 2006). The value of the company provides maximum wealth to shareholders when the stock price rises. The higher the stock price of a company, the higher wealth of shareholders (Jensen, 2010). The value of the company is very important for investors because it shows the performance of the company.

The growth of the banking industry should be followed by the increase of firm value (Timotius et al., 2016), which is characterized with an increase of Tobin’s Q, but based on figure 1.2 shows Tobin’s Q of banking industry with category BUKU III declined from 2013-2015. It indicates that there is a decrease in firm value of banking industry especially category BUKU III during the period.

The Financial Services Authority (OJK) considers that the banks included in the category
BUKU III are the most depressed due to the tight seizure of liquidity since the last quarter of 2013. Based on OJK data, the condition of the bank that has capital of 5 trillion to 30 trillion is most inefficient compared to other categories (www.katadata.co.id, 2014). In addition, during 2015 there was a tightening of liquidity in the bank category BUKU III (id.beritasatu.com, 2015). The loan to deposit ratio in the bank with category BUKU III increased, that is in 2014 from 97% to 98.51% in 2015 (OJK, 2017). When compared to banks with other category BUKU, the banks category BUKU III has the loan to deposit ratio above the normal limit of Bank Indonesia (BI) provision, that is 92%. The increase of loan to deposit ratio was triggered by the increase in lending which was not offset by the collection of a third-party fund. There are several factors that influence firm value. Financial performance is one indicator that will be considered by the investor in buying company shares (Pascareno, 2016). The firm value can be said to be good if it has good corporate financial performance (Sandhika et al., 2013). Financial performance is proxied by non-performing loans, liquidity, profitability, and leverage (Hakim and Sugianto, 2018; Pascareno, 2016).

The firm size of a company shows that a growing company has a positive impact on the increasing of the firm value. The perception of investors show that the larger size of the company, will be easier for the company to get funds, so that the firm size positively affects the value of the company (Chen and Lee, 2017). However, Pascareno (2016) states that there is no influence between firm size and firm value.

Instead of using financial information, investor can also assess the company performance with non-financial information, that is Corporate Social Responsibility (CSR) (Tjia and Setiawati, 2012). Business continuity will be guaranteed if you pay attention to the social and environmental dimensions (Sandhika et al., 2013). CSR is mandatory for limited liability companies. This is regulated in Law No. 40 of 2007. With this regulation, the limited liability company of companies related to the use of natural resources and human resources is needed to carry out social responsibility to the community. Compared to other sectors, banks have more linkages with society (Mandell et al., 1981). Disclosure of CSR in the banking industry in a relatively simple form in which CSR disclosure and implementation should be based on the economic indicator, environment, labor, human rights, society or social, and product performance (Fitria and Hartanti, 2010).

The report of corporate social responsibility can be used as a tool to communicate company performance to stakeholders. Even though the company must pay for the implementation of corporate social responsibility, it can provide a competitive advantage for the company by attracting many investors (Tjia and Setiawati, 2012). The more investors who are interested in investing in the company, there will be an increase in stock prices, thus increasing the firm value.

Therefore, this phenomena encourages the researchers to perform further research to determine the relationship between firm value and the control variables that are non-performing loans, loan to deposit ratio, debt to equity ratio, return on equity, firm size, and corporate social responsibility. The sample is taken from the banking industry with category BUKU III that listed in Indonesia Stock Exchange.

2. LITERATURE REVIEW

Bank

The bank is a financial institution that has main activities consisting of raising funds, channelling funds and providing other banks services (Kasmir, 2014). The existence of banks types based on the BUKU category has been regulated by the provisions of PBI Number
This regulation classifies banks into 4 (four) BUKU categories, which consist of:

- **BUKU I**: banks with core capital below than IDR 1 trillion
- **BUKU II**: banks with core capital between IDR 1 trillion and IDR 5 trillion
- **BUKU III**: banks with core capital between IDR 5 trillion and IDR 30 trillion
- **BUKU IV**: banks with core capital more than IDR 30 trillion.

**Firm Value**

Firm value is the measurement of assets in companies that represent the future business in the company. The purpose of the firm refers to the theory of the firm pioneered by Coase (1937) and developed by Williamson (1979) is maximizing the value of the company. Baert & Vennet (2009) explained that Enterprise Value (EV) or known as firm value is an important concept for investors. Firm value is an investor's perception of the company which is often associated with stock prices. The increase in the company's stock price will have an impact on the company's high value and is followed by the high prosperity of the shareholders (Keown et al., 2010). Maximizing firm value is one of the company's goals as an effort to provide welfare to shareholders. Tobin’s Q can be used to measure firm value (Chung and Pruitt, 1994).

\[
\text{Tobin's Q} = \frac{(\text{number of shares} \times \text{closing price}) + \text{Total Debt}}{\text{Total Assets}} \tag{1}
\]

**Financial Performance**

Financial performance is one of the fundamental aspects of the assessment of the condition of the company. Financial performance reveals the company is good or not in managing the financial resources in generating profits. The more efficient the use and management of funds, the better of the impact on the company. Financial performance reports can be used as a tool to decide on policy management that must be taken (Jauhar et al., 2017).

**Non-Performing Loans**

A non-performing loan is financial ratio that shows credit risk faced by banks due to lending and investment of bank funds in different portfolios. Based on SE BI No.13 / 30 / DPNP dated December 16, 2011, it is determined that the NPL ratio may not exceed 5%. The formulated non-performing loans as follows.

\[
\text{NPL} = \frac{\text{Non Performing Loans}}{\text{Total Loans}} \tag{2}
\]

**Loan to Deposit Ratio**

Loan to deposit ratio represent liquidity ratio that compares the number of funds channeled to the public (credit) with the number of public funds and own capital used (Kasmir, 2014). Based on The provision for the lower limit for the LDR is 78% and the upper limit that can be tolerated is 92%, which came into force since 2 December 2013 in accordance with SE BI No. 15/41/DKMP dated October 1, 2013. The formulated loan to deposit ratio as follows.

\[
\text{LDR} = \frac{\text{Total Loans}}{\text{Third-party funds}} \tag{3}
\]
Debt to Equity Ratio

Debt to equity ratio represents the leverage ratio that indicates the amount of funds provided by the borrower (creditor) with the owner of the company (Kasmir, 2014). The formulated debt to equity ratio as follows (Pascareno, 2006).

\[
\text{Debt to Equity} = \frac{\text{Total Debt}}{\text{Total Equity}} \tag{4}
\]

Return on Equity

Return on equity represents the profitability is the return of output or equity whose amount is expressed as a parameter and obtained from the investment of regular shares of the company in a certain period of time (Sartono, 2010). Return on equity can be formulated as follows (Sandhika et al., 2013).

\[
\text{Return on Equity} = \frac{\text{Net Income}}{\text{Total Equity}} \tag{5}
\]

Firm Size

The size of the company represented the size of the company shows that the size of the larger company also has greater asset value. Company size is one of the important factors that influence company performance (Salno & Baridwan, 2000). Jinmin et al. (2016) stated the firm size of the firm can be calculated by using the natural logarithm of total assets, the formula is as follows.

\[
\text{Firm Size} = \ln (\text{Total Assets}) \tag{6}
\]

Corporate Social Responsibility

Corporate Social Responsibility (CSR) is a form of corporate responsibility to improve company value. Therefore, corporate social responsibility has an attraction to increase company value (Kuo & Chen, 2013). The CSR index is used to measure the CSR, which is the broad relative disclosure of each sample company for the social disclosures it does. Based on GRI, the number of disclosure items is 91 items. Assessments carried out in measuring CSR disclosure by giving a score of 0 and 1. Where the value of 0 for items that are not disclosed and value 1 for items expressed by the company (Ho and Taylor, 2007). If the company discloses CSR activities in full, the maximum value achieved is 91. Ganewatta and Priyadarshanie (2016) formulated the CSRDI calculation as follows.

\[
\text{CSRDI}_j = \frac{\sum X_{ij}}{n_j} \tag{7}
\]

Where:
- \(\text{CSRDI}_j\) : Corporate Social Responsibility Disclosure Index of company j
- \(n_j\) : the total items for a company j, \(n_j = 91\)
- \(\sum X_{ij}\) : the total amount of CSR disclosure by the company.
- 1 = if item disclosed; 0 = if item was not disclosed, \(0 \leq \text{CSRDI}_j \leq 1\)

3. RESEARCH METHODS

Population and Sample

This research is conducted by using panel data design. The data used in this study is secondary data, where the data collected for this research is annual data from 2011-2017, obtained from financial report and sustainability of official website company and Indonesia
Stock Exchange official website. The population in this study focuses on the banking industry of Indonesia and listed on Indonesia Stock Exchange. The sampling method used is non-probability sampling with purposive sampling technique. Based on this method, samples are taken to have the following criteria:

1. The banking company that listed in category BUKU III.
4. The banking company must have positive ROE in the period 2011-2017.

Based on the criteria above, there are 10 banks full fill the criteria from category BUKU III which have been selected. Those banks which have been selected as the sample in this research are: PT Bank Bukopin Tbk (BBKP), PT Bank Danamon Tbk (DNMN), PT Bank Tabungan Pensiunan Nasional Tbk (BTPN), PT Bank Pembangunan Daerah Jawa Barat dan Banten Tbk (BJBR), PT Maybank Indonesia Tbk (BNII), PT Bank Tabungan Negara (BBTN), PT OCBC NISP Tbk (NISP), PT Bank Mega Tbk (MEGA), PT Bank Mayapada International Tbk (MAYA), PT Bank Pan Indonesia Tbk (PNBN).

The main analysis tool that will be used in this research is the statistical tool of Eviews (Econometric Views) version 10. Eviews is a statistical tool that helps researchers to process data in scientific research and can be trusted (Schwert, 2010). This research uses Eviews to process the raw data statistically in order to get a result that can be used as normality, heteroscedasticity, autocorrelation, and multiple regression.

Multiple Regression Analysis

Multiple regression analysis is chosen to be used in this research has six independent variables. The dependent variable is firm value while the independent variables are non-performing loans, loan to deposit ratio, debt to equity ratio, return on equity, firm size, and corporate social responsibility. The effect of independent variables to dependent variable can be written as follows:

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \varepsilon \]

Where:
\( Y \) = Firm Value
\( \beta_0 \) = Intercept/Constant (value of \( Y \) when \( X_1-X_6 = 0 \))
\( \beta_1 - \beta_6 \) = Partial Regression Coefficients
\( X_1 \) = Non-Performing Loans
\( X_2 \) = Loan to Deposit Ratio
\( X_3 \) = Debt to Equity Ratio
\( X_4 \) = Return on Equity
\( X_5 \) = Firm Size
\( X_6 \) = Corporate Social Responsibility
\( \varepsilon \) = Random Error

Hypothesis

Based on the theoretical framework, the hypothesis of this research can be written as follows.

Hypothesis 1: Non-Performing Loans (NPL) has the influence on the firm value in Indonesia
banking industry with category BUKU III.

Hypothesis 2: Loan to Deposit Ratio (LDR) has the influence on the firm value in Indonesia banking industry with category BUKU III.

Hypothesis 3: Debt to Equity Ratio (DER) has the influence on the firm value in Indonesia banking industry with category BUKU III.

Hypothesis 4: Return on Equity (ROE) has the influence on the firm value in Indonesia banking industry with category BUKU III.

Hypothesis 5: Firm Size (FS) has the influence on the firm value in Indonesia banking industry with category BUKU III.

Hypothesis 6: Corporate Social Responsibility (CSR) has the influence on the firm value in Indonesia banking industry with category BUKU III.

Hypothesis 7: Non-Performing Loans (NPL), Loan to Deposit Ratio (LDR), Debt to Equity Ratio (DER), Return on Equity (ROE), Firm Size (FS), and Corporate Social Responsibility (CSR) have the simultaneous influence on the firm value in Indonesia banking industry with category BUKU III.

4. RESULT AND DISCUSSION

Descriptive Statistic

Descriptive analysis is an analysis that describes information for each observed variable. To do a descriptive analysis can use Eviews 10 with several characteristics consist of: mean, median, maximum, minimum, standard deviation, skewness, kurtosis, Jacque-Bera, probability, and a sum of observations. According to Appendix 1, the information of the result descriptive statistic will be explained as below:

1. The average value of Firm Value (Y) is 1.050 with standard deviation of 0.092 indicates that the data mostly spread around 1.050 ± 0.092. The maximum value of 1.360 happens to BTPN in 2012 and the minimum value of 0.919 happens to PNBN in 2016.

2. The average value of Non-Performing Loans (X1) is 0.024 with standard deviation of 0.013 indicates that the data mostly spread around 0.024 ± 0.013. The maximum value of 0.085 happens to BBKP in 2017 and the minimum value of 0.004 happens to NISP in 2012 and 2013. The normal standard value set by Bank Indonesia NPL is below 5%. This shows that the banks that have met the standards set by Bank Indonesia.

3. The average value of Loan to Deposit Ratio (X2) is 0.878 with standard deviation of 0.117 indicates that the data mostly spread around 0.878 ± 0.117. The maximum value of 1.089 happens to BBTN in 2014 and the minimum value of 0.524 happens to MEGA in 2012. The normal standard values set by Bank Indonesia LDR is between 78% - 92%. This shows that the banks that have met the standards set by Bank Indonesia.

4. The average value of Debt Equity Ratio (X3) is 8.019 with standard deviation of 0.047 indicates that the data mostly spread around 8.019 ± 0.047. The maximum value of 14.748 happens to BBKP in 2017 and the minimum value of 3.551 happens to BDMN in 2017.

5. The average value of Return on Equity (X4) is 0.124 with standard deviation of 0.047 indicates that the data mostly spread around 0.124 ± 0.047. The maximum value of 0.256 happens to BTPN in 2012 and the minimum value of 0.020 happens to BBKP in 2017.

6. The average value of Firm Size (X5) is 19.071 with standard deviation of 1.785 indicates that the data mostly spread around 19.071 ± 1.785. The maximum value of 25.037 happens to MAYA in 2017 and the minimum value of 17.658 happens to BTPN in 2011.

7. The average value of Corporate Social Responsibility (X6) is 0.182 with standard deviation of 0.029 indicates that the data mostly spread around 0.182 ± 0.029. The maximum value of 0.253 happens to BBTN in 2017 and the minimum value of 0.132 happens to BTPN in 2011, 2012, 2013, 2015, and 2016.
Classical Assumption Test

The classic assumption is needed to test whether the model fulfills the requirements of BLUE parameter or not. The model must fulfill the normality test, heteroscedasticity test, autocorrelation test and multicollinearity test to obtain valid result used multiple regression analysis.

1. Normality Test
Normality test to find out the dependent variables and dependent variable are distributed normally or not (Schwert, 2010). According to Gujarati (2004) to find out the data normally distributed by using the probability of Jacque-Bera. Based on the result in Appendix 2, the probability of Jarque-Bera is greater than 0.05 that is 0.054 which mean indicated the data has a normal distribution.

2. Heteroscedasticity Test
In this study using the white-cross section coefficient covariance method to eliminate heteroscedasticity in research. Based on the result Appendix 3 shows “white cross-section standard errors & covariance (d.f. corrected)”. According to Gujarati (2004), this method also known as robust standard errors. Hence, there is no heteroscedasticity in this research.

3. Autocorrelation Test
There are several tests can be used to detect autocorrelations. One of them is by using Durbin-Watson. The data is free from the autocorrelation test when the result shows between -2 and +2 (Santoso, 2014). Based on Appendix 4, the Durbin- Watson in this research is 1.127 which means more than -2 and less than +2. Therefore it can be said there is no autocorrelation occurs.

4. Multicollinearity Test
According to Heinecke (2011), to detect multicollinearity test to carried out using matrix correlation test with the confidence level of \( \alpha = 5\% \). To get data that is free from multicollinearity, the correlation coefficient must be less than 0.7. Based on the result in Appendix 5, all the independent variables is lower than 0.7. Thus, there is no multicollinearity in this research and the data valid to be continued.

Multiple Regression

Multiple regression analysis is a statistical analysis to determine the dependence of the dependent variable on the independent variables. Appendix 6 is the result of multiple regression in this research by using a random effect. The equation of the multiple regression models are as follows:

\[
Y = 0.873 - 0.347NPL - 0.126LDR - 0.005DER + 0.633ROE + 0.016FS - 0.316CSR
\]

Inferential Analysis

T-Test
The T-test as a parameter to determine or explain for each behavior the independent variables influence the dependent variable (Iqbal, 2015). This research applied t-test to see the effect of partially or each independent variables to the dependent variable by comparing the value of significant t with significant standard \( \alpha = 5\% \) or 0.05. Based on Appendix 6, Return on Equity and Firm Size have a significant influence on the Firm Value. Meanwhile, Non-Performing Loans, Loan to Deposit Ratio, Debt to Equity Ratio, and Corporate Social Responsibility have no significant influence on the Firm Value.

F-Test
The F-test is used to analyze whether there is a relationship between the set of independent variables at the dependent variable simultaneously (Suprapto, 2004). To do a F-test by
assessing the F-statistics probability of each independent variables with a significance value of 5% or 0.05. Based on Appendix 7, it shows that the probability value of F-statistic is 0.015 less than the significant value of 0.05. Thus, Ha is accepted and Ho is rejected which means there is the significant simultaneous influence of non-performing loans, loan to deposit ratio, debt to equity ratio, return on equity, firm size, and corporate social responsibility towards firm value in Indonesia banking industry category BUKU III.

Coefficient of Determination
The goal of the coefficient of determination is a measure of how much the independent variables affects the dependent variable (Suprapto, 2004). The value of the coefficient of determination can be measured by adjusted R² value. Based on Appendix 8, the result of Adjusted R-squared is 0.141 it means that non-performing loans, loan to deposit ratio, debt to equity ratio, return on equity, firm size, and corporate social responsibility explained 14.1% influence towards firm value and the rest of 85.9% explained by the other variable which is not examined in the research. The small adjusted R² means the ability of independent variables in explaining dependent variable is very limited (Ghozali, 2006).

Interpretation of Result
1. The effect of non-performing loans towards firm value
   The first hypothesis states that “there is a significant effect of non-performing loans towards firm value”. According to table 1 which present significant value of 0.705, the hypothesis is rejected. This result supported by Intan et al. (2015) found non-performing loans has no significant influence on firm value. The result of the non-performing loan in Indonesia banking industry with category BUKU III is 2.4% where met the standards by Bank Indonesia is below 5%. It indicates the banks can still resolve "bad credit" so that non-performing loan has not to affect to the firm value.

2. The effect of loan to deposit ratio towards firm value
   The second hypothesis states that “there is a significant effect of loan to deposit ratio towards firm value”. According to table 1 which present significant value of 0.488, the hypothesis is rejected. This result is in line with Hakim and Sugianto (2018) and Intan et al. (2015). Both studies found a loan to deposit ratio has no significant influence to the firm value. This indicates the loan to deposit ratio not a major concern in supporting the firm value, where there are other consideration factors that affect the firm value (Intan et al., 2015). Loan to deposit ratio has not a significant influence on firm value because of the percentage of credit interest and interest on third-party funds is small (Anwar, 2018). The result of the loan to deposit ratio in Indonesia banking industry with category BUKU III is 87.8% where met the standards by Bank Indonesia is between 78%-92%. It indicates the banks can still resolve the liquidity so that the loan to deposit ratio has not to affect the firm value.

3. The effect of debt to equity ratio towards firm value
   The third hypothesis states that “there is a significant effect of debt to equity ratio towards firm value”. According to table 1 which present significant value of 0.259, the hypothesis is rejected. This result supported by Pascareno (2016) found debt to equity ratio has no significant influence to the firm value. The size of the debt owned by the company is not too much attention from investors, because investors see more about how the management of the company uses these funds effectively and efficiently to achieve added value for the firm value.
4. The effect of return on equity towards firm value
The fourth hypothesis states that “there is a significant effect of return on equity towards firm value”. According to table 1 which present significant value of 0.007, the hypothesis is accepted. Coefficient regression value of 0.633 indicates that return on equity has a positive influence on the firm value. It explains that an increase on return on equity will increase the value of firm value. Based on the result significant variable of return on equity has the biggest contribution to the firm value. A positive coefficient indicates companies can generate profits with their own capital capabilities that can benefit shareholders thereby increasing the value of the company. This result supported by Intan et al. (2015), Jinmin et al. (2016), and Sandhika et al. (2013) stated that return on equity has positive significant influence toward firm value. Return on equity can be used to measuring the profitability of a company. Profitability shows the level of net profit that the company can achieve when carrying out its operations. The value of profits distributed to shareholders is profit after interest and tax (Julia et al., 2014). High profitability can provide added value to the firm value reflected in the price of its shares.

5. The effect of firm size towards firm value
The fifth hypothesis states that “there is a significant effect of firm size towards firm value”. According to table 1 which present significant value of 0.009, the hypothesis is accepted. Coefficient regression value of 0.016 indicates that firm size has a positive influence on the firm value. It explains that an increase on firm size will increase the value of firm value. This result supported by Julia et al. (2014) and Chen and Lee (2017) that found firm size has positive significant influence to the firm value. The large firm size illustrated that the company has grown so that investors will respond positively and have an impact on increasing the value of the company. This indicates that large companies more easily access financing through the capital market.

6. The effect of corporate social responsibility towards firm value
The sixth hypothesis states that “there is a significant effect of corporate social responsibility towards firm value”. According to table 1 which present significant value of 0.540, the hypothesis is rejected. This result is in line with Tjia and Setiawati (2012) stated there is no significant influence of corporate social responsibility toward the firm value. The implementation of CSR and disclosure of information does not have a direct impact on the firm value (Servaes and Tamayo, 2013). This indicates that CSR practices do not have an effect on firm value because many banks with category BUKU III have little disclosure of their CSR compared to the total items that must be disclosed so that investors pay less attention to CSR disclosures as one of the information that affects investment.

7. Simultaneous effect of non-performing loans, loan to deposit ratio, debt to equity ratio, return on equity, firm size, and corporate social responsibility towards firm value.
All independent variables such as; non-performing loans, loan to deposit ratio, debt to equity ratio, return on equity, firm size, and corporate social responsibility have significant effect on firm value simultaneously. The regression model shows adjusted R² is 0.141 which indicates all the variation of independent variables explain 14.1% variation in firm value. The 85.9% is explained by another variables which not included the research. This finding support by the previous research conducted Hakim and Sugianto (2018) that found the variation of company growth, capital adequacy ratio, non-performing loans, loan to deposit ratio, BOPO, and growth of DPK can explain the variation towards firm value is 6.6% and Jinmin et al. (2016) that found the variation of R&D, cash ratio, return on equity, growth,
capital structure, firm size, and industry concentration can explain the variation towards firm value is 17.3%. The small R² means the ability of independents variable in explaining dependent variable is very limited (Ghozali, 2006).

5. CONCLUSIONS

Based on the regression result, it can be concluded that return on equity and firm size have a positive significant influence toward firm value. Meanwhile, non-performing loans, loan to deposit ratio, debt to equity ratio, and corporate social responsibility have no significant influence toward firm value. The biggest contribution to the firm value is shown by variable return on equity, this means that ROE was the most influential variable among all variables in this research. Regarding to the F-test result, the probability value of its F-test result, the probability value of its F-statistics is 0.015 where it is lower than 0.05 (0.015 < 0.05), thus the independent variables which are non-performing loans, loan to deposit ratio, debt to equity ratio, return on equity, firm size, and corporate social responsibility have significant effect simultaneously to the firm value. Moreover, the explanatory power of the regression model in this research is limited due to the relatively small number of Adjusted R². Thus, those variables are suggested to be expanded in the next research.

REFERENCES

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The Influence of Entrepreneurial Passions, Competencies and Characteristics on Business Success in Micro, Small, and Medium-Scale Business of Strawberry Processing Industry at Rancabali District, Bandung Regency

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**Abstract**

This study aimed to identify the influence of entrepreneurial passions, competencies and characteristics on the success of micro, small, and medium-scale business strawberry processing industry. The study was conducted from November 2017 to June 2018 and was located at strawberry processing industry in Rancabali District, Bandung Regency. This study applied causal research method using quantitative approach with data collection instruments through questionnaire. The population in this study is owners and employees of micro, small, and medium-scale business strawberry processing industry located in Rancabali District, Bandung Regency. The sampling technique used probability sampling techniques and Slovin formula with an error level of 1% (0.01). The samples in this research are 28 business owners and 252 employees. The scale used in this study is the Likert scale. The instrument for data testing used SmartPLS version 3.2.7. In the third hypothesis test the independent variable has positive original sample value, statistical t value >1.96, and P value <0.05. Therefore, all three hypotheses are accepted. The results of this study indicate
that entrepreneurial passions, competencies and characteristics variables simultaneously have positive and significant impacts on business success.

**Keywords:** Entrepreneurial Passions; Entrepreneurial Competencies; Entrepreneurial Characteristics; Business Success

1. INTRODUCTION

Strawberries are one of the horticultural commodities that have high economic value and good market share. This is the reason why people in Rancabali utilize the economic potential of the abundant strawberries in this area by creating strawberry-based food processing industry.

Strawberries in Rancabali are usually cultivated and marketed in the form of fresh fruit. Strawberries can be harvested after four months of planting. The strawberries were sorted based on the quality through grading (Bunda, 2016). Strawberries are quickly and easily damaged. Therefore, various efforts have been made to extend the durability and selling value of the fruit. One of the solutions to solve this problem is to process strawberries into various processed products such as dodol (traditional sweets), jam, syrup, and crackers. Nowadays, strawberry-based food products from Rancabali have become the iconic gifts of Bandung.

However, competitors from various areas in Indonesia will continue to grow and there will be more various products from the competitors. It will be a threat to the sustainability of the strawberry processing industry in Rancabali if they do not improve the competitiveness of their products and human resources quality.

Micro, small and medium-scale business strawberry processing industry does not have steady organizations to deal fast with change because of its simple internal organizational structure without clear working scheme. The growth rate of strawberry production, the number of micro, small and medium-scale business, the numbers of workers and turnover in the manufacturing sector in Rancabali during 2014-2017 have continued to decline.

**Table 1.** Strawberries Processing in Rancabali during 2014-2017

<table>
<thead>
<tr>
<th>Year</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strawberry processing industry</td>
<td>36</td>
<td>32</td>
<td>30</td>
<td>28</td>
</tr>
<tr>
<td>Workers (people)</td>
<td>1080</td>
<td>640</td>
<td>450</td>
<td>280</td>
</tr>
<tr>
<td>Growth of strawberry</td>
<td>19,542</td>
<td>11,320</td>
<td>7,100</td>
<td>4,700</td>
</tr>
</tbody>
</table>
Some empirical studies focus on examining the factors that influence business success, including statements that: passions have a significant effect on business performance and success of micro, small and medium-scale business (Siddiqui, 2016), entrepreneurial characteristics and competencies give positive results on business performance and success (Sarwoko et.al., 2013), and entrepreneurial competencies have significant influence on performance and success of micro, small and medium-scale business (Hamid et.al., 2015). Seeing those phenomena, it is important for an entrepreneur to have entrepreneurial passions, competencies and characteristics to achieve success in business. Therefore, the researcher decided to conduct a research entitled "The Influence of Entrepreneurial Passions, Competencies and Characteristics on Business Success in Micro, Small, and Medium-Scale Business of Strawberry Processing Industry at Rancabali District, Bandung Regency."

2. CONCEPTUAL FRAMEWORK AND HYPOTHESES

**The Influence of Entrepreneurial Passions on Business Success**

Amir (2012) formulated 5 elements of passion namely meaningful connection, internal drive, work absorption, joy, and subjective energy. A person is thought to be passionate if he/she believes there is a correlation between works (what they do) and identity (who they really are). They also feel strong desire and interest in their work. Therefore, someone who feels passionate about his/her work that is relevant to hobby or something they like to do will work seriously because they enjoy it. This allows positive influence on the success of a running business managed by an entrepreneur.

There are various ways to measure business success including survival, profit, return on investment, sales growth, employees or workers, happiness, company reputation, and so on (Schmidpeter & Weidinger, 2014). This theory applied as a fundamental to determine the indicators of business success in this study. The research focused on annual turnover growth, growth in number of workers, innovation in product lines, business continuity and workers’ happiness.

**H1:** Entrepreneurial passions have influence on business success in micro, small, and medium-scale business of strawberry processing industry at Rancabali District, Bandung Regency
The Influence of Entrepreneurial Competencies on Business Success

Human resources play a very important role as driving force in an industry. Entrepreneur is a trigger for a company to achieve maximum competitiveness. Therefore, as a trigger and leader of a company, it is necessary for a company to have competent entrepreneur to minimize potential risks such as financial risk, career risk, family and social risk, and psychic risk (Frederick, Connor and Kuratko, 2010).

An entrepreneur must have competencies to achieve business success. In this study, the competencies used as indicators are strategy, commitment, opportunity, conceptual, relationship, and organization (Sarwoko et al., 2013).

H2: Entrepreneurial competencies have influence on business success in micro, small, and medium-scale business of strawberry processing industry at Rancabali District, Bandung Regency

The Influence of Entrepreneurial Characteristics on Business Success

Daft (2012) wrote that an entrepreneur must have six characteristics: internal locus of control, need to achieve, self confidence, awareness of passing time, and tolerance of ambiguity. Street (2010) argued that success is determined by individual characteristics, organizational characteristic, relationship and environmental characteristics, strategy development and planning, and organizational development. Based on the theory above, it can be assumed that there may be a correlation of entrepreneurial characteristics as determinant factor for micro, small, and medium-scale business to achieve success.

H3: Entrepreneurial characteristics have influence on business success in micro, small, and medium-scale business of strawberry processing industry at Rancabali District, Bandung Regency

3. RESEARCH METHOD

This study applied causal research with quantitative approach to test the formulated hypotheses. The results of this study explain the causal correlation of four variables, namely entrepreneurial passions, entrepreneurial competencies, and entrepreneurial characteristics as independent variables, and business success as dependent variable.

Definition and Operational Variables

Independent Variables (X)

1) Entrepreneurial Passions
Amir (2012) formulated five elements of passions: meaningful connection, internal drive, work absorption, joy, and subjective energy. A person is thought to be passionate if he/she believes there is a correlation between works (what they do) and identity (who they really are).

2) **Entrepreneurial Competencies**
In this study, the competencies used as indicators are strategy, commitment, opportunity, conceptual, relationship, and organization (Sarwoko et. al., 2013).

3) **Entrepreneurial Characteristics**
Daft (2012) wrote that an entrepreneur must have six characteristics: internal locus of control, need to achieve, self confidence, awareness of passing time, and tolerance of ambiguity.

1. Internal locus of control. To believe the future is in one’s hands and is willing to make changes from failure to convert into success of high energy levels. Starting a business requires enthusiasm or great energy to face the challenges and obstacles.
2. Need to achieve. To have motivation and successful goals.
3. Self confidence. To have confidence, capability to run a business and to face offenders, to perform a good work, and to continue the business.
4. Awareness of passing time. A person who just started entrepreneurship tends to be impatient and would like to think there is no tomorrow, everything must be done immediately.
5. Tolerance of ambiguity. Tolerance to uncertainty risk.

**Dependent Variable (Y)**

1) **Business Success**
There are various ways to measure business success including survival, profit, return on investment, sales growth, employees or workers, happiness, company reputation, and so on (Schmidpeter & Weidinger, 2014). This theory applied as a fundamental to determine the indicators of business success in this study. The research focused on annual turnover growth, growth in number of workers, innovation in product lines, business continuity and workers’ happiness.

**Research Population and Sample**
There are 28 industries and 280 business people (including owners and employees) of strawberry processing producers in Rancabali District, Bandung Regency.

The sampling used proportionate stratified random sampling technique where each element of the population has the same chance to be selected as an object (probability sample). The strata (levels) in the population were taken into account.
to determine the sample. In this study the population is 28 managers (owners) and 252 employees.

By using Slovin formula with 1% of error rate:
\[ n = \frac{N}{1 + (N \times e^2)} \]

In which:
- \( n \) = Number of elements / members of the sample
- \( N \) = Number of elements / members of the population
- \( e \) = Error level of 0.05 or 0.01

The sample in this study:
\[ n = \frac{280}{1 + (280 \times 0.012)} = 280,028 \text{ or rounded into 280 people} \]

The taken sample then reformulated by:
\[ n = \left( \frac{\text{total class population}}{\text{total population}} \right) \times \text{specified number of samples} \]
- Owner = \( \frac{28}{280} \times 280 = 28 \) people
- Employees = \( \frac{252}{280} \times 280 = 252 \) people

The instrument for data processing used SmartPLS version 3.2.7 because this study use multivariate statistical techniques by performing three variables, namely independent variables, intervening variables, and dependent variables. The scale used for the questionnaire is five-point Likert scale.

4. RESULTS AND DISCUSSION

Measurement Model Evaluation (Outer Model)

**Convergent Validity**

Convergent Validity testing of the measurement model with reflexive indicators is assessed based on the correlation between the item score / component score and the construct score calculated using PLS. Individual indicators are valid if they have correlation value above 0.70. However, research on the development stage can be accepted with a scale of loading factors from 0.50 to 0.60 (Ghozali, 2012).
<table>
<thead>
<tr>
<th>Variables</th>
<th>Indicators</th>
<th>Outer Loadings</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Entrepreneurial Passions</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X1.1</td>
<td></td>
<td>0.986</td>
<td>VA</td>
</tr>
<tr>
<td>X1.2</td>
<td></td>
<td>0.981</td>
<td>VA</td>
</tr>
<tr>
<td>X1.3</td>
<td></td>
<td>0.971</td>
<td>VA</td>
</tr>
<tr>
<td>X1.4</td>
<td></td>
<td>0.971</td>
<td>VA</td>
</tr>
<tr>
<td>X1.5</td>
<td></td>
<td>0.986</td>
<td>VA</td>
</tr>
<tr>
<td><strong>Entrepreneurial Competencies</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X2.1</td>
<td></td>
<td>0.976</td>
<td>VA</td>
</tr>
<tr>
<td>X2.2</td>
<td></td>
<td>0.947</td>
<td>VA</td>
</tr>
<tr>
<td>X2.3</td>
<td></td>
<td>0.978</td>
<td>VA</td>
</tr>
<tr>
<td>X2.4</td>
<td></td>
<td>0.973</td>
<td>VA</td>
</tr>
<tr>
<td>X2.5</td>
<td></td>
<td>0.864</td>
<td>VA</td>
</tr>
<tr>
<td>X2.6</td>
<td></td>
<td>0.976</td>
<td>VA</td>
</tr>
<tr>
<td><strong>Entrepreneurial Characteristics</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>X3.1</td>
<td></td>
<td>0.974</td>
<td>VA</td>
</tr>
<tr>
<td>X3.2</td>
<td></td>
<td>0.935</td>
<td>VA</td>
</tr>
<tr>
<td>X3.3</td>
<td></td>
<td>0.981</td>
<td>VA</td>
</tr>
<tr>
<td>X3.4</td>
<td></td>
<td>0.979</td>
<td>VA</td>
</tr>
<tr>
<td>X3.5</td>
<td></td>
<td>0.791</td>
<td>VA</td>
</tr>
<tr>
<td><strong>Business Success</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Y.1</td>
<td></td>
<td>0.993</td>
<td>VA</td>
</tr>
<tr>
<td>Y.2</td>
<td></td>
<td>0.967</td>
<td>VA</td>
</tr>
<tr>
<td>Y.3</td>
<td></td>
<td>0.989</td>
<td>VA</td>
</tr>
<tr>
<td>Y.4</td>
<td></td>
<td>0.991</td>
<td>VA</td>
</tr>
</tbody>
</table>
All indicators in Table 2 have reached convergent validity because they have loading factor above 0.70. Therefore, the data is valid.

**Discriminant Validity**

An indicator is valid if it has loading factor to another construct; by comparing the loading value to the targeted construct must be higher than the loading value with another construct.

Discriminant Validity (Cross Loadings) test result can be seen in TABLE 4.2 as follows:

**Table 3. Discriminant Validity Test Result (Cross Loadings)**

<table>
<thead>
<tr>
<th></th>
<th>X1 (Entrepreneurial Passions)</th>
<th>X2 (Entrepreneurial Competencies)</th>
<th>X3 (Entrepreneurial Characteristics)</th>
<th>Y (Business Success)</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.1</td>
<td>0.986</td>
<td>0.702</td>
<td>0.979</td>
<td>0.754</td>
</tr>
<tr>
<td>1.2</td>
<td>0.981</td>
<td>0.702</td>
<td>0.973</td>
<td>0.753</td>
</tr>
<tr>
<td>1.3</td>
<td>0.971</td>
<td>0.723</td>
<td>0.940</td>
<td>0.768</td>
</tr>
<tr>
<td>1.4</td>
<td>0.971</td>
<td>0.730</td>
<td>0.943</td>
<td>0.778</td>
</tr>
<tr>
<td>1.5</td>
<td>0.986</td>
<td>0.708</td>
<td>0.982</td>
<td>0.763</td>
</tr>
<tr>
<td>2.1</td>
<td>0.689</td>
<td>0.976</td>
<td>0.696</td>
<td>0.948</td>
</tr>
<tr>
<td>2.2</td>
<td>0.720</td>
<td>0.947</td>
<td>0.740</td>
<td>0.940</td>
</tr>
<tr>
<td>2.3</td>
<td>0.689</td>
<td>0.978</td>
<td>0.700</td>
<td>0.953</td>
</tr>
<tr>
<td>2.4</td>
<td>0.689</td>
<td>0.973</td>
<td>0.702</td>
<td>0.949</td>
</tr>
<tr>
<td>2.5</td>
<td>0.673</td>
<td>0.864</td>
<td>0.686</td>
<td>0.849</td>
</tr>
<tr>
<td>2.6</td>
<td>0.708</td>
<td>0.976</td>
<td>0.716</td>
<td>0.957</td>
</tr>
<tr>
<td>3.1</td>
<td>0.976</td>
<td>0.688</td>
<td><strong>0.974</strong></td>
<td>0.742</td>
</tr>
</tbody>
</table>

*Source: PLS Output*
Table 3 shows that there are three loading values of the indicator item on the construct less than the cross loading value. From the result of cross loading analysis, there seemed to be a problem with discriminant validity and should be modified.

To fulfill the loading values of the indicator item on the construct that must be higher than the cross loading value, some indicators need to be removed:

<table>
<thead>
<tr>
<th>Dimensions</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>X3.1 Internal Locus of Control</td>
<td>Entrepreneurs are professional and disciplined in running their business</td>
</tr>
<tr>
<td>X3.2 Need to Achieve</td>
<td>Entrepreneurs focus on sales volume growth and product sales income</td>
</tr>
<tr>
<td>X3.3 Self Confidence</td>
<td>Entrepreneurs feel optimistic and believe they can develop their business</td>
</tr>
</tbody>
</table>

The following shows the results of discriminant validity modification tests after deleting three indicators.

**Table 4. Modified Discriminant Validity Test Result**

<table>
<thead>
<tr>
<th>X1 (Entrepreneurial Passions)</th>
<th>X2 (Entrepreneurial Competencies)</th>
<th>X3 (Entrepreneurial Characteristics)</th>
<th>Y (Business Success)</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1</td>
<td>X2</td>
<td>X3</td>
<td>Y</td>
</tr>
</tbody>
</table>

Source: PLS Output
After deleting three indicators, there are changes in the Discriminant Validity value in TABLE 4.3. The loading value of each indicator item to the construct is higher than the cross loading value. The result of cross loading modification analysis indicates there is no problem with discriminant validity.

**Construct Reliability and Validity**
To ensure that there are no problems related to the measurement, the last step in evaluating the outer model is to test the unidimensionality of the model.
Unidimensionality tests are conducted using the Composite Reliability and Cronbach's Alpha indicators.

**Table 5. Composite Reliability Test Result**

<table>
<thead>
<tr>
<th></th>
<th>Cronbach’s Alpha</th>
<th>Rho_A</th>
<th>Composite Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1 (Entrepreneurial Passion)</td>
<td>0.989</td>
<td>0.989</td>
<td>0.991</td>
</tr>
<tr>
<td>X2 Entrepreneurial Competencies</td>
<td>0.980</td>
<td>0.980</td>
<td>0.984</td>
</tr>
<tr>
<td>X3 Entrepreneurial Characteristics</td>
<td>0.836</td>
<td>0.854</td>
<td>0.924</td>
</tr>
<tr>
<td>Y Business Success</td>
<td>0.990</td>
<td>0.990</td>
<td>0.992</td>
</tr>
</tbody>
</table>

Source: PLS Output

Composite Reliability, rho_A, Cronbachs Alpha test results show satisfied values in which all latent variables values are \( \geq 0.7 \). Therefore, the Entrepreneurial Passions, Entrepreneurial Competencies, Entrepreneurial Characteristics and Business Success variables are reliable to measure the unit of analysis.

Furthermore, construct reliability and validity can also be viewed from the Average Variance Extracted (AVE) value.

**Table 6. AVE Test Result**

<table>
<thead>
<tr>
<th></th>
<th>AVE</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1 (Entrepreneurial Passions)</td>
<td><strong>0.958</strong></td>
<td>VALID</td>
</tr>
<tr>
<td>X2 (Entrepreneurial Competencies)</td>
<td><strong>0.909</strong></td>
<td>VALID</td>
</tr>
<tr>
<td>X3 (Entrepreneurial Characteristics)</td>
<td><strong>0.858</strong></td>
<td>VALID</td>
</tr>
<tr>
<td>Y (Business Success)</td>
<td><strong>0.953</strong></td>
<td>VALID</td>
</tr>
</tbody>
</table>

Source: PLS Output

AVE value of each construct is above 0.5. On TABLE 4.5 it can be seen that the AVE value of each construct is above 0.5. Therefore, the data is valid.

a. **Structural Model (Inner Model) Evaluation**

a. **R-Square Value (R²)**
The value of R-Square (R2) is a test of the Goodness of Fit (GoF) model. To assess the model with PLS, starts from looking at R-Square (R2) for each dependent latent variable.

**Table 7. R Square Value Test Result (R^2)**

<table>
<thead>
<tr>
<th></th>
<th>R Square</th>
<th>R Square Adjusted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y (Business Success)</td>
<td>0.969</td>
<td>0.969</td>
</tr>
</tbody>
</table>

Source: PLS Output

R Square dependent latent variable is 0.969. This can be interpreted that the construct variability of Business Success (Y1) is influenced by Entrepreneurial Passions (X1), Entrepreneurial Competencies (X2) and Entrepreneurial Characteristics (X3) of 96.9%. Meanwhile, 3.1% is explained by other excluded variables.

*Estimate for Path Coefficients.*

The estimated for Path Coefficients is done through the Bootstrapping procedure. The significance of influence of each variable such as Entrepreneurial Passions, Entrepreneurial Competencies and Entrepreneurial Characteristics can be identified in the output path coefficient through the parameter coefficient value (original sample).

**Table 8. Path Coefficient Test Result**

<table>
<thead>
<tr>
<th></th>
<th>Original Sample (O)</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1 (Entrepreneurial Passions) -&gt; Y (Business Success)</td>
<td>0.089</td>
</tr>
<tr>
<td>X2 (Entrepreneurial Competencies) -&gt; Y (Business Success)</td>
<td>0.867</td>
</tr>
<tr>
<td>X3 (Entrepreneurial Characteristics) -&gt; Y (Business Success)</td>
<td>0.065</td>
</tr>
</tbody>
</table>

Source: PLS Output

Based on Table 8 above, it can be identified that:

1. The Entrepreneurial Passions variable (X1) parameter coefficient is 0.089 which indicates positive influence between Entrepreneurial Passions (X1) on Business Success (Y).
2. The Entrepreneurial Competencies variable (X2) parameter coefficient is 0.867 which indicates positive influence between Entrepreneurial Competencies (X2) on Business Success (Y).
3. The Entrepreneurial Characteristics variable (X3) parameter coefficient is 0.065, which indicates positive influence between Entrepreneurial Characteristics (X3) on Business Success (Y).

b. Predictive Relevance/ Q-Square ($Q^2$) Value

The following formula can be applied to calculate the Predictive Relevance ($Q^2$):

$$Q^2 = 1-(1-R_{12}) (1-R_{22}) \ldots \ldots (1-R_{p2})$$

Calculation:

$$Q^2 = 1-(1-0.969)$$

$$Q^2 = 0.969$$

Based on the result of the Predictive Relevance ($Q^2$) test, the value of 0.938 is higher than 0. Therefore, the model is relevant to the prediction of the endogenous factor given. In other words, the observation value produced by the model is good.

c. Goodness of Fit (GoF) Value

The value of the Goodness of Fit (GoF) index is obtained from the average communalities index multiplied by the value of $R^2$ model. GoF values ranged from 0-1 with the following interpretations:

- Goodness of Fit (GoF) Low = 0.1
- Goodness of Fit (GoF) Moderate = 0.25
- Goodness of Fit (GoF) High = 0.38

Goodness of Fit (GoF) formula:

$$GoF = \sqrt{AVE \times R^2}$$

Calculation:

$$GoF = \sqrt{0.920 \times 0.969}$$

$$GoF = 0.929$$

From the calculation of Goodness of Fit (GoF) above, the result is 0.929 (High GoF). It can be concluded that the performance between the measurement model and the structural model has high GoF which is 0.929 (above 0.38). It means that the sample covariance matrix is compatible with the population covariance matrix.
Hypotheses Testing Evaluation

This is the path coefficient table to find out the estimation results of T Statistics from the bootstrapping report.

Table 9. Hypothesis Testing Result

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Original Sample</th>
<th>T Statistic</th>
<th>P Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1 (Entrepreneurial Passions) -&gt; Y (Business Success)</td>
<td>0.089</td>
<td>5.959</td>
<td>0.000</td>
</tr>
<tr>
<td>X2 (Entrepreneurial Competencies) -&gt; Y (Business Success)</td>
<td>0.867</td>
<td>66.156</td>
<td>0.000</td>
</tr>
<tr>
<td>X3 (Entrepreneurial Characteristics) -&gt; Y (Business Success)</td>
<td>0.065</td>
<td>4.099</td>
<td>0.000</td>
</tr>
</tbody>
</table>

Source: PLS Output

Based on Table 9 above, there are some points to explain:
1. The correlation between Entrepreneurial Passions (X1) on Business Success (Y) is significant with t-statistic value of 5.959 (> 1.96) and p value of 0.000 (<0.05). The Original Sample estimate value is positive i.e. 0.089. It indicates that the correlation between Entrepreneurial Passions (X1) and Business Success (Y) is positive. Therefore, H1 hypothesis is accepted that Entrepreneurial Passions (X1) has influence on Business Success (Y).

2. The correlation between Entrepreneurial Competencies (X2) on Business Success (Y) is significant with t-statistic value of 66.156 (> 1.96) and p value of 0.000 (<0.05). The Original Sample estimate value is positive i.e. 0.867. It indicates that the correlation between Entrepreneurial Competencies (X2) on Business Success (Y) is positive. Therefore, H2 hypothesis is accepted that Entrepreneurial Competencies (X2) has influence on Business Success (Y).

3. The correlation between Entrepreneurial Characteristics (X3) on Business Success (Y) is significant with t-statistic value of 4.099 (> 1.96) and p value of 0.000 (<0.05). The Original Sample estimate value is positive i.e. 0.065. It indicates that the correlation between Entrepreneurial Characteristics (X3) on Business Success (Y) is positive. Therefore, H3 hypothesis is accepted that the Entrepreneurial Characteristics (X3) has influence on Business Success (Y).

Discussion

The Influence of Entrepreneurial Passions (XI) on Business Success (Y)
The result of the analysis indicated that Entrepreneurial Passions (X1) has significant influence on Business Success (Y) in micro, small, and medium-scale
The Influence of Entrepreneurial Passions (X1) on Business Success (Y)

The results of the analysis indicated that Entrepreneurial Passions (X1) has significant influence on Business Success (Y) in micro, small, and medium-scale business of strawberry processing industry at Rancabali District, Bandung Regency. The first hypothesis is proven in this study. The result defined that entrepreneurial passions is crucial for entrepreneurs to succeed their business.

Passions in the form of meaningful connection (interest of the business involved), internal drive (enthusiasm and high motivation to develop the business), work absorption (deeply involved to the work, joy (cheerful and happy feelings) and subjective energy (vibrant and positive energy) come from within would give influence to the success of business in micro, small, and medium-scale business of strawberry processing industry at Rancabali District, Bandung Regency.

The results of this study are in line with previous relevant studies by Muis (2015), Siddiqui (2016), Kosa and Mohammed (2017) about the positive and significant influence of passions on business performance and the success of micro, small, and medium-scale business.

The Influence of Entrepreneurial Competencies (X2) on Business Success (Y)

The result of the analysis indicated that Entrepreneurial Competencies (X2) has significant influence on Business Success (Y) in micro, small, and medium-scale business of strawberry processing industry at Rancabali District, Bandung Regency. The second hypothesis is proven in this study. The result defined that entrepreneurial competencies is the most fundamental thing for the success of a business.

This study revealed the competencies of an entrepreneur including the ability to strategize, to hold commitment, to capture opportunities, to develop business concepts, to have good relationship with others, and to manage the organization would determine the business success in micro, small, and medium-scale business of strawberry processing industry at Rancabali District.

The results of this study are in line with previous relevant studies by Sarwoko et. al. (2013), Abd-Hamid et. al (2015), Mhadalle and Kaplan (2015), Octavia (2015), and Pamela et. al (2016) about the positive and significant influence of competencies on business performance and the success of micro, small, and medium-scale business.

The Influence of Entrepreneurial Characteristics (X3) on Business Success (Y)

The result of the analysis indicated that Entrepreneurial Characteristics (X3) has significant influence on Business Success (Y) in micro, small, and medium-scale business of strawberry processing industry at Rancabali District, Bandung Regency. The third hypothesis is proven in this study. This result defined that entrepreneur characteristics is very important for entrepreneurs to achieve success in business.

This study revealed awareness of passing time (working without delay) and tolerance of ambiguity (ready to work/taking business risks) have influence on the
success of business in micro, small, and medium-scale business of strawberry processing industry at Rancabali District.

The results of this study are in line with previous relevant studies by Sarwoko (2008), Wijayanto (2013), Sarwoko et al. (2013), Mhadalle and Kaplan (2015) about the positive and significant influence of characteristics of entrepreneurs on business success.

5. CONCLUSIONS AND SUGGESTIONS

Conclusion

Based on the results of the analysis in this study, it can be concluded that entrepreneurial passions, entrepreneurial competencies, and entrepreneurial characteristics have positive and significant influence on business success.

Suggestions

Based on the results and conclusions in this study, it is expected that entrepreneurs would pay attention to some factors that influence the success of a business. The researcher would like to suggest some points:

1. It is recommended for the entrepreneurs, especially business owners, to continue to explore their interests in the business sector involved for their sense of enthusiasm and optimism in business development.

2. It is recommended for the entrepreneurs both business owners and employees to improve competencies, one of them is through knowledge sharing with other entrepreneurs to maximize their capacity.

3. It is recommended for the community or group of micro, small, and medium-scale business processing of strawberry processing industry in Rancabali District to cooperate with regional government to provide guidance and discussion on issues related to strawberry production.

4. It is recommended for the regional government to facilitate micro, small, and medium-scale business processing of strawberry processing industry in Rancabali District by providing training related to the competencies needed to develop the company and providing facilities towards digital sales to expand their business.

5. It is recommended for other researchers to conduct research with larger sample area or to compare micro, small, and medium-scale business processing of strawberry processing industry in other regions in Indonesia.

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Toward the model of Green Commitment: The Influences of Egoistic, Altruistic, Biospheric on Green Satisfaction

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Abstract

The purpose of this study is to examine and to analyze the influence of values orientation consists of egoistic, altruistic and biospheric on green satisfaction and green commitment. The research object of this paper focuses on Indonesian consumers who have the green brand purchase experience. This study undertakes an empirical study by means that the questionnaire survey method are randomly mailed to consumers who have the experience of purchasing green consumers brand. Structural equation modeling (SEM) is applied to test the research framework. The empirical results indicate that egoistic and biospheric will positively affect green satisfaction and green commitment.

**Keywords:** values orientation, egoistic, altruistic, biospheric, green satisfaction, green commitment

1. INTRODUCTION

The current environmental issue is part of the political and economic agenda of various countries and has got broad support from the community (Sangroya and Nayak, 2017; Alegria et al., 2016; Medeiros et al., 2016). Various agreements between countries regarding efforts to reduce greenhouse gas emissions are carried out in phases (Montreal Protocol (1989), Kyoto Protocol (2005-2012), Paris Aggrement (2016 (UNEP, 2016). In the end, these various environmental problems lead to the dilemmatic conditions (Nguyen et al., 2016) in which, on the one hand, humanity and the life of modernity require
economic growth, but the impact of losses on nature and life also occurs (Gupta, 2007; Khan and Mohsin, 2017).

The emergence of environmental awareness by the community encourages them to look for new needs in a product (Paul, 2016). Now consumers are motivated to contribute to environmental protection (Moser, 2015). A product is valuable not only from its benefits for the consumers themselves but also for others and the environment (Hartman, 2005, 2012). This encourages demands on the business world to create, not only functionally and emotionally valuable, but also fulfill their desire to protect nature (Huang et al., 2014, Kladou et al., 2017) and that makes them to desire a brand that shows equal responsibility. Green brand distinguishes products symbolically, emotionally, and intangibly (more abstractly) from non-green brands (Papista and Krystallis, 2012). Green brands have a certain set of benefits associated with reducing environmental impacts and consumer perception which is environmentally sensitive (Hartmann et al. 2005, 2012; Huang and Lin, 2012) and again associated with nature protection and sustainable business-practices (Chen and Chang, 2013).

However, that various consumer characteristic to make changes to the green behavior apparently is not that easy (Mostafa et al., 2009; Tan et al., 2016). The growth of green behavior in society requires a change in their psychographic characteristics (Papista and Krystallis, 2012, Binder, and Blankenberg, 2017). It takes an in-depth analysis of what factors drive the consumers to make them continually use the brand despite being faced with many alternative brands of competing products that offer superior product characteristics (Astini, Rina, 2016).

Values become one important intrinsic factor in directing behavior (Mobrezi and Koshtinat, 2016, Pothitou et al., 2016, Liobiekine and Juknys, 2016).

More specifically, Steg says that a person's values orientation becomes an important motivation in making decisions in one's life as well as being a guide for the life goals including consuming decisions (Steg, et al., 2014, Werff et al, 2013, Werff and Steg, 2016). Three important values orientations in a person are egoistic, altruistic, and biospheric (Stern, 2000, Grootz and Steg, 2007). Egoistic is a value oriented to one's own needs, altruistic emphasizes goals for the benefit of others, and biospheric shows orientation to the environment.

Various previous studies often differed in looking at the effect of values orientation on consumer behavior. For example, egoistic is often considered as a value that weakens green behavior but on the other hand altruistic strengthen. Some other previous researches also revealed the opposite. Therefore, this research intends to examine deeper the relationship between each of these values with the establishment of green, in this case, green commitment through mediation satisfaction in the context of green brand consumption in developing countries.

2. LITERATURE REVIEW

The interest of a company to know customer experience in buying green products results from a general belief enhancing customer experience will result in greater loyalty to the firm or brand. As loyalty represents “a deeply held commitment” that results in repeat purchasing behavior (Oliver, 1999, p. 34), commitment is the customer attitude that managers are seeking to influence in the hope of engendering increased purchase behaviors. Once achieved, however, customer commitment has the potential to influence customers’ perceptions of subsequent experiences (Timothy et al, 2017).

Commitment has been recognized as a potential driver of customer loyalty (Fullerton, 2011; Meyer and Allen, 1997; Morgan and Hunt, 1994). The effects of affective
commitment are positive (Bansal et al., 2004; Fullerton, 2003; Gruen et al., 2000; Harrison-Walker, 2001; Morgan and Hunt, 1994). When customers are affectively committed to an organization, they want the organization to succeed and they would recommend it (Fullerton, 2011). The positive impact of continuance commitment on customer loyalty has also been supported by a few empirical studies (Gustafsson et al., 2005; Ruyter et al., 2001). Positive affect enhances commitments, which can in turn influence loyalty.

Values Orientation

Another value theory is related to values and views on the environment is the theory of VBN which is a combination of values theory and norm activation models (Stern, 1999). This theory is an extension of the activation model of norms to improve the part of intention and pro-environmental behavior which is specifically designed to test environmental behavior and includes a variety of fundamental concepts in environmental problems (Oreg, Katz-gerro, 2006; Stern 2000, Chua et al., 2016). Values have been defined by Schwartz (1992) as desirable goals that serve as guiding principles in one's life. Values are abstract, general and maintain stability over time (Feather, 1995).

Values orientation relates to the environment and influences environmentally friendly activities consisting of egoistic, altruistic, and biospheric (Stern and Diaz, 2000), and biosphere values is directly related to nature (Stern, 1998, Steg et al., 2006).

Egoistic

Egoistic value is conceptualized by how an individual values him/herself focus on safeguarding or increasing his or her resources, make a person relationship to other people and living nature, and concentrating on self-welfare (Batson, 1995; Stern & Dietz, 1994, Steg et al, 2014). Egoistic is a value based on the purpose of maximizing personal gain or value that reflects the focus on individual interests (Stern, 1998, De Groot and Steg, 2006). Thus, people with egoistic values are guided by hedonic and gain goals (Steg et al., 2014a, b). There are eight indicators for measuring one's egoistic values, namely: (1) Social Power (2) Wealth (3) Authority (4) Influential (5) Ambitious (6) Hedonic (7) Self direction (8) Achievement (Werf and Steg, 2016, Cho, et al, 2013, Chan et al, 2015, Chua et al, 2016, Esfahani, 2016, Triandis and Gelfand, 1998, Follows and Jobber, 2000, Richins and Dawson, 1992, Stern et al, 2000).

Altruistic


Biospheric

The third one, biosphere value, is displayed when a person behaves pro-environmentally based on perceived costs and benefits to the overall ecosystem (Schultz, 2001; de Groot & Steg, 2008). Biosphere value is directly related to the nature (Stern, 1998, Steg et al., 2006)
that reflects the focus on the interests of nature and the environment (Stern, 2000, de Groot and Steg, 2007). People who strongly endorse biospheric values care for nature and the environment and more strongly base their decisions to engage in particular actions on the consequences of their behavior for nature and the environment.


Satisfaction
The level of pleasure in consuming a green brand when satisfaction of environmental desires, sustainable expectations, and green needs is met (Hartmann, 2007, Chen 2010). Indicators consist of: (1) Happy with the decision to use a green brand that is related to environmental image (2) Thinking that buying a green brand is appropriate because of its environmental functions (3) Satisfied because the green brand shows environmentally friendly performance (4) Happy buying the products because they are friendly environment (Chen, 2010).

Theoretical Framework and Hypothesis Development
The hypothesis model that will be built referring to the antecedent variable raised in this study is the values orientation which is the main emphasis of the purpose of this topic

Values Orientation as Antecedent of Green Satisfaction
Theory concept of VBN Stern, 2000. VBN theory is a theory that builds relationships between values, beliefs, and norms in a chain forming behavior whereas Goal Framing (Steg et al, 2005) motivates someone for three purposes, namely pleasure, saving money, or because they think about protecting the environment (Steg 2007). Values orientation consisting of three has three different objectives so that collisions often occur and have the potential to strengthen or inhibit green behavior (Lindenberg and Steg, 2007; Steg and Nordlund, 2012). Despite different levels of sensitivity to the environment, but each values orientation relates to environmentally friendly behavior (Collins, Steg, & Koning, 2007, Lee et al., 2015, Choi et al., 2015). Research conducted by Werff et al., 2013 found that not only egoistic, altruistic but also biospheric influences one's intention behavior on environmentally friendly energy through environmentally self identity.

Although egoistic is expressed as values that lack sensitivity to the environment (Steg, 2014; Nordlund and Garvill, 2002; Lind, et al, 2015), the goal is the feeling of benefits (self-enhancement), functional benefits and emotional benefits are the reflection of egoistic value goal. Satisfaction is about feeling benefit, so it prove that egoistic has relationship with green satisfaction. Previous research also shows that egoistic values are related to green behavior (Stern, 1993, Snellgar, 2006, Kareklas, 2015, Yadav and Pathak, 2016, Chua, et al., 2016, Han, 2017).

Altruistic Altruism involves acting to increase the welfare of others incurring personal costs but lacking personal gains (Batson, 1994, Stern, 2000). As with most prosocial behavior, pro-environmental behavior has inherent characteristics of altruism and can be construed as such (Griskevicius et al., 2010). Altruism has also been addressed from a human values perspective. Behavioral research stretching over several decades has confirmed human values as important drivers of pro-environmental behaviors. Several
studies have found that altruistic values are stronger among people who engage in pro-environmental activities (e.g., Schwartz, 1992; Stern et al., 1995).

Further research found that altruistic values have respectively a positive impact on consumers' environmental identity (Gatersleben et al., 2014), and altruistic also contributed to explaining participation in a green energy program (Herbes et al., 2015).

The other value to be raised in this study is Biospheric. Biospheric values follow a key concern with nature and the environment for their own sake. Both latter groups of values affect the chronic accessibility of normative goals in a given situation. People who strongly endorse biospheric values care for nature and the environment and more strongly base their decisions to engage in particular actions on the consequences of their behavior for nature and the environment.

Studies showed that particularly biospheric values are strongly and consistently related to environmental preferences, intentions, and behavior: those with strong biospheric values are more likely to have pro-environmental preferences and intentions, and to act pro-environmentally (Steg & De Groot, 2012) and also proven as orientation value that influences the subjective norm variable and explain a person's intention process towards a green hotel (Choi, 2015). This finding is in line with Nguyen et al., (2016) who examined green behavior in Vietnam.

Biospheric values showed a strong influence to encourage consumers to choose sustainable product (Werff et al, 2013, Steg, 2014, Han, 2017, Tate et al., 2016). Therefore, the hypothesis to be appointed in this study are:

H1a: Egoistic has a positive effect on the green Satisfaction
H1b: Altruistic has a positive effect on green Satisfaction
H1c: Biospheric has a positive effect on green Satisfaction

The Effect of Green Satisfaction on Green Commitment

The concept stating the relevance of benefits and satisfaction has been expressed previously by Kotler and Keller, 2012. Previous research also revealed that benefits are anticipated high, then the opportunity for individuals to behave positively is high and shows a significant influence on satisfaction (Han et al, 2017).

Other researches also reveal that consumers who receive more benefits will be more satisfied which is the degree of pleasure consumers feel (Chan et al., 2010, Yim et al., 2012). Chen (2013), Lin et al, 2017 and Prebensen and Xie, 2017 have the same idea where they show that benefits positively influence satisfaction and consumer behavior. Likewise, Chang and Fong (2010) found a positive relationship between functional quality, green customer satisfaction, and green loyalty. Therefore, the next hypothesis is:

H2: Green Satisfaction have a positive effect on Green Commitment
3. RESEARCH METHOD

Population and Sample
The population for this study is green brand consumers in Indonesia who are the generation of X and Y. The research sample is green brand consumers who actively buy green brands at least 3 times in the past year. To get a sample that can describe the population, in determining the number of research samples then the Hair formula is used, which is 5-10 x the number of indicators. The sampling technique used is purposive sampling technique in which the characteristics of the sample in the study are categorized by age and minimally have bought the green brand 3 times in the past year. With all the requirements, this study involved 402 respondents.

Measurement Instrument
Based on data collection techniques, the method of this research is the survey method, which instrument is distributed questionnaire spread through google form, with questions include each variable. Questions regarding the respondent's background are presented at the end of the questionnaire.

1. Green Commitment
Green Commitment is the dependent variable in this study. The conceptualization and instruments used in the questions were adapted from (Davis, 2009, Nyadzayo et al. 2016), and consisted of 5 question items. The respondent assessment of effectiveness of strategy implementation items were obtained on 7 point -Likert -type scale.

2. Egoistic
Egoistic is an independent variable in this study. Egoistic which is part of the values orientation consists of 8 question items. Questions are adapted from (Werf and Steg, 2016, Cho, et al, 2013, Chan et al. 2015, Chua et al, 2016, Esfahani, 2016, Triandis and Gelfand, 1998, Follows and Jobber, 2000, Richins and Dawson, 1992, Stern et al, 2000). The respondent assessment of effectiveness of strategy implementation items were obtained on 7 point -Likert -type scale.

3. Altruistic
Altruistic which is part of the values orientation consisting of 6 question items is an independent variable in this study. Questions are adapted from Werf and Steg, 2016, Cho et al, 2013, Chan et al, 2015, Chua et al, 2016, Esfahani, 2016, Triandis and Gelfand, 1998, Follows and Jobber, 2000, Richins and Dawson, 1992, Stern et al, 2000. The respondent assessment of the effectiveness of strategy implementation items were obtained on 7 point - Likert-type scale.

4. Biospheric


5. Green Satisfaction

Green Satisfaction is a mediating variable in this study, with concepts and measurements referring to (Chen, 2010), and consists of 4 question items. The respondent assessment of effectiveness of strategy implementation items were obtained on 7 point -Likert-type scale.

4. ANALYSIS

Respondent Description

The total number of respondents is 402 consisting of 175 men (43.53%) and 227 women (56.47%). In this study, the number of respondents is almost the same between men and women, although the frequency of female respondents is greater. From the Age profile, the number of respondents who answered the questionnaire aged 21-30 years is 217 people (53.98%) followed by respondents aged 31-40 years as many as 110 people (27.36%), the third rank is respondents with the age of 41-50 years as many as 57 people (14.18%). This is in accordance with the previous research by Nielsen which states that the millennial generation is the majority generation of green brand users and more environmentally conscious. From the Education profile, the majority of respondents who answered the questionnaire is 217 students (53.98%) with undergraduate education (S1), followed by the second place with 120 Masters (29.85%) with Masters (S2) education. From the description of the respondents, it is found that participants who show green behavior are the most from those with higher education and from the female group.

Result

The Structural Equation Modeling (SEM), LISREL version 8.7 and two step analysis approach as suggested by Gerbing and Anderson, 1988, were adopted to analyze the data.

The Analysis of Measurement Model

Convergent Validity

The convergent validity tested is the degree which multiple items are used to measure the same concept agree. According to Hair et al, 2010, standard factor loading, composite reliability, and average variance extracted are used as indicators to assess the convergent validity. The results of the validity and reliability test on all three variable statement items are shown by the following table:
<table>
<thead>
<tr>
<th>Latent Variable &amp; Indicator</th>
<th>*SFL ≥ 0.5</th>
<th>Error</th>
<th>*CR ≥ 0.7</th>
<th>*VE ≥ 0.5</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Egoistic</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EGO1 Social Strength</td>
<td>0.64</td>
<td>0.59</td>
<td></td>
<td></td>
<td>Good</td>
</tr>
<tr>
<td>EGO2 Prosperity</td>
<td>0.60</td>
<td>0.64</td>
<td></td>
<td></td>
<td>Good</td>
</tr>
<tr>
<td>EGO3 Authority</td>
<td>0.76</td>
<td>0.42</td>
<td></td>
<td></td>
<td>Good</td>
</tr>
<tr>
<td>EGO4 Influential</td>
<td>0.76</td>
<td>0.42</td>
<td></td>
<td></td>
<td>Good</td>
</tr>
<tr>
<td>EGO5 Ambitious</td>
<td>0.81</td>
<td>0.34</td>
<td></td>
<td></td>
<td>Good</td>
</tr>
<tr>
<td>EGO6 Luxury</td>
<td>0.90</td>
<td>0.19</td>
<td></td>
<td></td>
<td>Good</td>
</tr>
<tr>
<td>EGO7 Self direction</td>
<td>0.82</td>
<td>0.33</td>
<td></td>
<td></td>
<td>Good</td>
</tr>
<tr>
<td>EGO8 Achievement</td>
<td>0.83</td>
<td>0.31</td>
<td></td>
<td></td>
<td>Good</td>
</tr>
<tr>
<td><strong>Altruistic</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ALT1 Equality</td>
<td>0.70</td>
<td>0.51</td>
<td></td>
<td></td>
<td>Good</td>
</tr>
<tr>
<td>ALT2 World Peace</td>
<td>0.71</td>
<td>0.50</td>
<td></td>
<td></td>
<td>Good</td>
</tr>
<tr>
<td>ALT3 Social Justice</td>
<td>0.61</td>
<td>0.63</td>
<td></td>
<td></td>
<td>Good</td>
</tr>
<tr>
<td>ALT4 Mutual Help</td>
<td>0.76</td>
<td>0.42</td>
<td></td>
<td></td>
<td>Good</td>
</tr>
<tr>
<td>ALT5 Mature Love</td>
<td>0.77</td>
<td>0.41</td>
<td></td>
<td></td>
<td>Good</td>
</tr>
<tr>
<td>ALT6 Caring for Others</td>
<td>0.77</td>
<td>0.41</td>
<td></td>
<td></td>
<td>Good</td>
</tr>
<tr>
<td><strong>Biospheric</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BIO1 Respect for the Environment</td>
<td>0.74</td>
<td>0.45</td>
<td></td>
<td></td>
<td>Good</td>
</tr>
<tr>
<td>BIO2 Not Affecting Global Warming</td>
<td>0.84</td>
<td>0.29</td>
<td></td>
<td></td>
<td>Good</td>
</tr>
<tr>
<td></td>
<td>Description</td>
<td>SLF</td>
<td>CR</td>
<td>VE</td>
<td>Validity</td>
</tr>
<tr>
<td>---</td>
<td>------------------------------------------------------------------</td>
<td>------</td>
<td>-----</td>
<td>------</td>
<td>--------------</td>
</tr>
<tr>
<td>BIO3</td>
<td>Not containing pollutants</td>
<td>0.78</td>
<td>0.39</td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td>BIO4</td>
<td>Quality Maintaining</td>
<td>0.77</td>
<td>0.41</td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td>BIO5</td>
<td>The production process not damaging nature</td>
<td>0.85</td>
<td>0.28</td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td>BIO6</td>
<td>Quality according to environmental friendly standards</td>
<td>0.78</td>
<td>0.39</td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td>BIO7</td>
<td>Consistent showing environmentally friendly performance</td>
<td>0.71</td>
<td>0.50</td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td><strong>Green Satisfaction</strong></td>
<td></td>
<td></td>
<td></td>
<td>0.93</td>
<td>0.77 Good Reliability</td>
</tr>
<tr>
<td>GS1</td>
<td>Satisfied because of the environmental image</td>
<td>0.85</td>
<td>0.28</td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td>GS2</td>
<td>Right because of the function of the environment</td>
<td>0.92</td>
<td>0.15</td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td>GS3</td>
<td>Satisfied to be environmentally friendly</td>
<td>0.90</td>
<td>0.19</td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td>GS4</td>
<td>Satisfied because the performance is environmentally friendly</td>
<td>0.84</td>
<td>0.29</td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td><strong>Green Commitment</strong></td>
<td></td>
<td></td>
<td></td>
<td>0.93</td>
<td>0.73 Good Reliability</td>
</tr>
<tr>
<td>GC1</td>
<td>Risking efforts to be successful</td>
<td>0.80</td>
<td>0.36</td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td>GC2</td>
<td>Proud to be part of the green brand</td>
<td>0.80</td>
<td>0.36</td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td>GC3</td>
<td>Don't want to leave the green brand</td>
<td>0.83</td>
<td>0.31</td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td>GC4</td>
<td>Bound with a green brand</td>
<td>0.94</td>
<td>0.12</td>
<td></td>
<td>Good Validity</td>
</tr>
<tr>
<td>GC5</td>
<td>Strengthen relationships with green brands</td>
<td>0.89</td>
<td>0.21</td>
<td></td>
<td>Good Validity</td>
</tr>
</tbody>
</table>

*SLF = Standardized Factor Loading, *CR = Construct Reliability, *VE = Variance Extracted

Based on the table above, all items have Standardized factor loading above 0.5, so it is said as valid. Construct Reliability results from CR ranged from 0.89 to 0.93 shows a reliable measurement model is reliable if the value of CR> 0.70. The VE value is said to be reliable when VE> 0.50 (Hair et al, 2010) and the value of VE were in the range from 0.60
to 0.9, so it is concluded that the diversity of loading of all indicators is reliable. Table 1 shown the results of convergent validity.

**Discriminant Validity**

Discriminant validity is the extent to which the measures do not reflect other variables and it is indicated by low correlation between the measure of interest and the measures of the constructs (Campbell and Fiske, 1959)

**Tabel 2.** Discriminant validity of construct Fornell-Larcker criterion

<table>
<thead>
<tr>
<th>No.</th>
<th>Variable</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Egoistic</td>
<td>4.40</td>
<td>1.2</td>
<td>0.59</td>
<td>7</td>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.</td>
<td>Altruistic</td>
<td>5.86</td>
<td>0.8</td>
<td>0.21</td>
<td>5</td>
<td>2</td>
<td>0.52</td>
<td>2</td>
</tr>
<tr>
<td>3.</td>
<td>Biospheric</td>
<td>5.63</td>
<td>0.9</td>
<td>0.21</td>
<td>2</td>
<td>5</td>
<td>0.75</td>
<td>2</td>
</tr>
<tr>
<td>4.</td>
<td>Satisfaction</td>
<td>5.45</td>
<td>1.1</td>
<td>0.47</td>
<td>2</td>
<td>3</td>
<td>0.50</td>
<td>3</td>
</tr>
<tr>
<td>5.</td>
<td>Commitment</td>
<td>4.95</td>
<td>1.1</td>
<td>0.42</td>
<td>1</td>
<td>3</td>
<td>0.527</td>
<td>2</td>
</tr>
</tbody>
</table>

Note: Diagonal elements are the square root of the AVE of the reflective scales while the off diagonals are the squared correlations between constructs

Discriminant validity is examined by comparing the squared correlations between the constructs and the variance extracted for construct (Fornell and Larcker, 1981). Table 2 shown that the squared correlations for each construct were less than square root of the average variance extracted by the indicators measuring that construct, indicating adequate convergent and discriminant validity.

**Structural Model Analysis**

Structural Model represent the relationships between latent variables hypothesized in research model (Hair, et al, 2010). The procedure used 402 samples to test the significance of regression coefficients to estimated parameters. Figure 1 illustrates the research model

![Figure 2. Research Model SEM](image-url)
Table 3 and figure 1 shown the result of the structural models from output of Lisrel. Values orientation namely with egoistic ($B = 0.13, p<0.05$), altruistic ($B = 0.19, p<0.05$), and biospheric ($B= 0.37 p<0.05$) were positively related to Green Satisfaction explaining 34% of the variance. Satisfaction were positively related to Green Commitment ($B = 0.58 p<0.05$) explaining 34% of the variance.

**Table 3. Hypothesis Test Results**

<table>
<thead>
<tr>
<th>Path Coefficient</th>
<th>Estimate</th>
<th>t-value</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>SATISFACTION &lt;-- EGOISTIC</td>
<td>0.13</td>
<td>2.65*</td>
<td>Supported</td>
</tr>
<tr>
<td>SATISFACTION &lt;-- ALTRUISTIC</td>
<td>0.19</td>
<td>1.79</td>
<td>Not supported</td>
</tr>
<tr>
<td>SATISFACTION &lt;-- BIOSPHERIC</td>
<td>0.37</td>
<td>3.55*</td>
<td>Supported</td>
</tr>
<tr>
<td>COMMITMENT &lt;-- SATISFACTION</td>
<td>0.58</td>
<td>9.24*</td>
<td>Supported</td>
</tr>
</tbody>
</table>

*Significant with t value > 1.96.

The following figure below shows a picture of the research results:

![Figure 3. Structural Model](image)

**5. DISCUSSION AND IMPLICATION**

*Discussion*

The findings of this study indicate that egoistic has a positive and significant effect on the green satisfaction. This means that this is in line with the previous research showing that egoistic values are related to green food product behavior (Shin et al, 2017). Likewise, Yadav and Pathak (2016) concluded that egoistic values encourage consumers to behave positively in the context of green food.

Another conclusion of the finding of the study shows that altruistic, which is often found to be influential on green behavior, turned out to have no effect on green satisfaction in green brand research. This shows that altruistic orientation that emphasizes the interests of others does not have an impact on the situation and behavior related to the interests of the environment. The findings of this study are in line with the statement submitted by previous
research that altruistic differentiated into social-altruistic and biospheric has unequal consequences (Stern, Dietz, & Guagnano, 1995; Stern et al., 1995). The previous research also shows that one's attention to the interests of others in the context of shared consumption is not necessarily in line with their alignments with the environment (Roos, Hahn, 2017).

Some previous researches also supported the findings of the study, one of them is research by Y. Lee et al, 2014 which states that altruistic values do not directly influence one's green behavior. The effect of altruistic values on green behavior occurs when mediated by PCE (perceived consumer effectiveness) and environmental awareness.

In line with the Values Theory and VBN, this study also shows the results that biopheric affects a person's green functional benefits. The Values Theory and VBN state that biospheric values are predictors of green behavior (Schwartz, 1999, Stern et al, 1999) and research by de Groot and Steg (2007, 2008, 2010) finds that biospheric values are driving green behavior relating to benefits to the environment.

There is one fact from the next finding of this study, it shows that increasing green satisfaction will affect the increase in green commitment which is in line with the findings of the previous research stating that there is a strong relationship between brand satisfaction and relationship commitment (Beatty et al., 1988; Chumpitaz Caceres and Paparoidamis, 2007; Jeong and Oh, 2017; Sung and Choi, 2010). The process is characterized with when consumers feel a dependence on the brand and from the experience using that results in the occurrence of satisfaction, sehingga konsumen mudah diraih (Sihite, 206), thus encouraging a commitment. (Hess and Story, 2005; Lee et al., 2007; Ranaweera and Menon, 2013)

**Implication**

Companies must pay attention to marketing strategies that include egoistic messages and biospheric values. From the findings, it turns out that the value of hedonistic, achievement and social recognition, which are the egoistic indicators, play an important role as the realization of consumer organizational values.

The impact on the company is that company should incorporate egoistic and biospheric values in messages on green brand advertising and promotion, likewise, the charity and campaign to save the environment will be more effective if it is used to tie consumer commitments, thus consumer value orientations can be more directed. Other implications are that companies must improve green marketing strategies and provide information that the green brand meets benefit that consumers want, for example, transparency regarding production processes, green technologies, product recycling, and saving natural resources. Consumers also need to be informed about premium price designated for the green brand, what prices they spend for, especially convincing consumers that the additional price is in order to uphold the mission of saving the environment. Satisfaction in obtaining transparent information will increase positive attitude, thus increasing commitment to the green brand. The next implication is that the company supports commitment through the right marketing strategies, for example, forming community groups on social media and membership directly in the form of routine meetings for members of the green brand community or offering various kinds of ease of process and benefits consumers will get.

The formation of a strong commitment will make consumers show better green behavior day by day.

**Limitations and Suggestions**

Various shortcomings still exist in this study including that this study uses a survey method even though the variable appointed as antecedent is the values orientation which is the psychological factor of the consumer. Values orientation is an important antecedent related to the intrinsic side of humans, therefore, researchers suggest to use experimental
design methods in the next study to be more explorative. Other studies that include moderating variables such as green self-identity and green then need to be done.

In addition, further research should be the values orientation positioned as a moderating variable so that it classifies consumers with each dominant values orientation and compared the differences in influence on green behavior. The researcher also suggest to make a research on the influence of values orientation towards green behavior in the scope of social marketing, for example, a research related to waste management, the use of environmentally friendly transportation, green life style, and organic food. In addition, the next research can also make comparisons between regions of particular countries, for example comparing developing countries with developed countries, or Asia and Europe and involving community culture as one of the moderation variables.

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Analysis of Customer Loyalty Program: The Case Study of Mypertamina, 2018

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Abstract

In the concept of relationship marketing, maintaining close relationships with customers is the main determinant for creating customer loyalty to the company. The case study that used in this study is the Pertamina gas station retail business. As the market leader in the Indonesian fuel retail industry, PT. Pertamina remains obliged to continue to grow and develop its services. One of the strategy chosen is to create a customer loyalty program. Relationship quality, which consists of satisfaction, trust, and customer commitment is a factor that can affect company loyalty. In addition to these factors, company loyalty is also influenced by program loyalty through experience involvement. This theoretical research aims to analyze the relationship between customer relations, relationship quality, loyalty and company loyalty programs. A total of 175 respondents using MyPertamina in the past one year were collected and all supporting data were analyzed by using the Structural Equation Modeling (SEM) method to measure program loyalty. The results showed that satisfaction, commitment and customer commitment (relationship quality) proved to be the important factors that influence loyalty to the company (company loyalty) positively. Special treatment and program value have successfully influenced customers for program loyalty. Finally, this study shows the results of loyalty to the program do not ensure the customers to be loyal to the company itself. This research also shows that the business offered by the offered MyPertamina program has effectively driven the customers for programs loyalty.

Keywords: company loyalty, involvement experiences, program loyalty, program perception, relationship marketing, retail business, and relationship quality.

1. INTRODUCTION

In this era of globalization, competition in terms of business has been increasing. Innovation is no longer limited to the high technology sector, but nowadays it has become a global phenomenon that affects all sectors of human’s life. This acceleration and good business innovation simultaneously remind us consumers and business people how important it is how to gain customer loyalty. As a goal of business marketing, customer loyalty is believed to be a commitment to the brand and or approach to the brand who provide service, product category and etc. (Dick and Base, 1994). Nowadays, the current obstacle which faced by many companies and even more some of them are huge and valuable companies are there are still gaps between the customer perception or customer expectation and the service or programs that were offered by the company. Customer Loyalty Programs are the proven marketing tools that has huge impact in growing and maintaining the market share of a business. However, there are still limitations among businesses in terms of finding the accurate method for controlling and measuring the effectiveness degree of the loyalty programs, whether it has positive impacts,
negatives impact or even has not impacted at all on the customer loyalty. When the changes that are made do not match with the company’s strategy, it would reduce the level of customer satisfaction that previously existed. Finally, this research study take a case study of MyPertamina loyalty program which owned by PT. Pertamina (Persero) as the context of this research. From what we know, as the biggest national energy company in Indonesia, Pertamina was the market leader in the fuel retail industry among several players that existing. Therefore, Pertamina also admitted that as a business, they still need to grow and develop their services continuously to keep their existence and good reputation to their customer.

Brand competition between retail fuel (SPBU) operators in Indonesia, especially in the non-subsidized fuel segment is very interesting to be analyzed. Although the player in this fuel retail operators are not too crowded, but the company branding efforts of each player are very tight. In fact, Pertamina as the market leader admitted that they should not be careless at all in terms of sustaining and growing as a business.

Due to the high competition among the fuel retail operator businesses in Indonesia increases the level of brand switching behavior on the customer nowadays. This phenomenon causes the majority business players to keep their customer to stay with their brand and not to switch to the other competitor’s brand. As previously mentioned, the customer loyalty has become the important target by a company to achieve. One of the emerging marketing tools of building customer loyalty is through loyalty programs. A loyalty program can be defined as a structured set of marketing activities that reward and foster loyal customer behavior (Sharp & Sharp, 1997). According to the definition itself, we can assume that the membership in Customer Loyalty Program (CLP) will encourage customers to stay with one brand.

In the other hand, PT. Pertamina (Persero) also admitted that there were brand switching behavior that occurs because of the people nowadays are more able to know which product that has the best quality for them among those options. Therefore, as a business, even though as the market leader, PT. Pertamina believes it is a necessity to grow and keep developing their service quality for their customers. Customer loyalty has become a concern for Pertamina.

In 2017, Pertamina officially launched a loyalty program called MyPertamina. The program was intended to improve the customer experience in terms of comfortness and convenience transaction in gas stations. MyPertamina carries loyalty, e-payment method and engagement platform which provide a new digital experience to customers in order to give benefits such points and rewards. This theoretical research took the case study of MyPertamina loyalty Program for testing the conceptual framework of previous research by Heiner Evanchitzky (2012) and Seema Gupta (2015).

2. METHODS

Conceptual Framework

The model of this research is adopted from the two previous researches, first is a journal entitled "Consequences of Customer Loyalty to The Loyalty Program and to the Company" in 2012 which was published by the Academic of Marketing Science. This research was conducted by Heiner Evanchitzky, B. Ramaseshan, David M. Woissetschlager, Verena Richelsen, Markus Blut and Christof Backhaus and a journal which published by Science Direct, written by Seema Gupta, Tanvi Gupta, and G. Shainesh in August 2015 entitled “Navigating from Program Loyalty to Company Loyalty”. By observing those two research methodology and results, this research has adapted several changes and combination then finally create a conceptual model of this research which is shown in the figure below:
Research Hypotheses

Satisfaction
Consumer satisfaction is influenced by expectations, perceived service and quality (Vuuren et al, 2012). Expectations affect total satisfaction when consumers evaluate service manufacturers. Satisfaction is the emotional response of consumers when evaluating differences between expectations related to services and perceptions of actual performance. Consumers are said to be satisfied when the results they get exceed the consumers' expectations so that customer satisfaction occurs. Therefore, this research proposed the following hypothesis.

**H1:** Satisfaction has a positive influence on building customer trust

Trust
In general, Vuuren et al (2012) defined trust as a party who believes that the other party will act according to his/her wishes, that the other party has sufficient credibility and capability. The key factor illustrated by the definition of trust is credibility. Therefore, this research proposed the following hypothesis.

**H2:** Trust has a positive influence on building customer commitment.

Commitment
Commitment is trusted as an intermediary in achieving individual and shared goals without fear of individual opportunistic behavior because committed partners will want to work on and overcome short-term problems with achieving long-term goals. Higher levels of commitment are things that are expected to be able to make corporate and consumer relations successful (Vuuren et al, 2012). Therefore, this research proposed the following hypothesis.

**H3:** Commitment has a positive influence on company loyalty.

Special Treatment
Gwinner et al. (1998) demonstrated that special treatment benefits are valued by customers as important drivers of loyalty to a particular program. Hennig-Thura et al. (2002) found special treatment benefits to have an indirect impact on word-of-mouth communication via commitment. Hence, this research hypothesizes the following:

**H4:** Special treatment benefits have a positive influence on program loyalty.

**Program Value**

O’Brien and Jones (1995) in Yi and Jeon (2003) stated that the perceived value of the customers is an important condition for the loyalty development by a loyalty program. Therefore, loyalty program has to be perceived as valuable in the customer’s perception. Hence, this research hypothesizes the following:

**H5:** Program value has a positive influence on program loyalty.

**Program Loyalty**

Program Loyalty is defined, in line with Yi and Jeon (2003), as having a favorable attitude toward the loyalty program. Program loyalty is more directly related to actual behavior because of its economic nature, directly incentivizing a particular behavior irrespective of having a favorable attitude. Customers with high program loyalty would tend to have higher personal relevance emanating from the sense of community due to the value they associate with their membership (Meyer-Waarden, 2007). Hence, this research hypothesizes the following:

**H6:** Program Loyalty has a positive influence on involvement experiences.

**Involvement Experiences**

Gupta et al. (2015) stated that involvement with experience leads to better customer-brand relationship satisfaction, thereby influencing company loyalty. When a customer realizes that the brand is making an effort to provide positive experiences and special treatment, he or she believes that the brand is investing in the relationship with customer (Mimouni-Chaabane & Volle, 2010). Hence, this research hypothesizes the following:

**H7:** Involvement experience has a positive impact on company loyalty.

**Company Loyalty**

Program loyalty will automatically develop the loyalty program members to be actively loyal to the company who created the program. In this case we hypothesize that members of MyPertamina loyalty program are most-likely loyal to the PT. Pertamina gas stations (loyal to the company). Therefore, this research proposed the following hypothesis

**H8:** Program Loyalty has a positive influence on company loyalty.

**Method of Data Collection**

![Figure 2. Research Design](Source: Malhotra, 2012).
One type of data is used in this research, namely primary data. Primary data is data collected directly for specific purposes in answering research problems (Malhotra, 2012). Primary data can be categorized into two groups, namely qualitative data and quantitative data. This research used quantitative data, the data collection method that used in this study was a survey and used self-administered filling techniques. Questionnaires were given to respondents online in the form of Google Form media to be filled in by each respondent. In addition, the questionnaire in this study uses structured question with close-ended question type. This research used a 6-point Likert scale, with a scale of

(1) Strongly Disagree
(2) Disagree
(3) Slightly Disagree
(4) Slightly Agree
(5) Agree
(6) Strongly Agree.

Method of Sampling
This study chooses the elements to be included in the sample because they believe that they are representatives of the population or in accordance with the chosen population. With judgmental sampling, this study will use screening questions with the aim of filtering and ensuring that respondents who fill out the questionnaire are people who are members of the MyPertamina loyalty program. To determine an adequate number of samples for this study, this research used the theory of Malhotra (2012), namely by

\[
\text{Total Sample Which Needed} = 5 \times \text{Total Number of Questions (items)}
\]

\[
\text{Total Sample Needed} = 5 \times 30 = 150 \text{ Respondents}
\]

In conclusion, the desired sample target in this research is 150 (minimum) users or members of MyPertamina loyalty program who actively use their loyalty card in every purchase of fuel in Pertamina gas stations. Determining an adequate sample number is important to improve the leveling of the results of the study. However, survey in this research has successfully reached 175 which are more than 150 respondents.

Analysis of Measurement Model
In general, the implementation of this research was carried out in two stages, which are the pre-test and main-test. Firstly, the pre-test is defined as the initial stage of the research in the form of testing that aims to ensure that the measuring instruments which are used in the study are accurate, valid, and reliable for further use in this study. In addition, the pre-test is also intended to ensure that there are no questions in the research questionnaire that are not in accordance with the respondent's language skills and are difficult for respondents to understand. Pre-testing in this study was conducted by distributing online questionnaires directly to 30 respondents who fit the criteria. The 30 respondents were asked to read the instructions and fill in every question in Google Form. The pre-test is intended to test the variables that have been used in previous research as well as identifying and eliminating problems that might arise in filling out research questionnaires. Therefore, the data obtained is then processed with IBM SPSS 22 data processing software to test the validity and reliability of each item in question.

Meanwhile, the main-test is the main stage of this research are a series of tests which conducted to answer existing research questions. Similar to the pre-test stage, this research distributed questionnaires online through Google Form to be filled out by prospective respondents. The collection of primary data is carried out within a period of three weeks, namely from the first week to the third week of April 2018. From the responses collected successfully, there were 178 respondents who participated in this study by filling out the distributed questionnaires. However, there were 3 respondents who did not meet the proposed criteria so that there were only 173 responses that could be further processed. Furthermore, according to the theory, 173 responses were processed and analyzed using LISREL 8.51 data processing software.
3. RESULTS AND DISCUSSION

Validity Analysis Result

The research tested the validity by using LISREL 8.51 data processing software. Analysis of the validity test is done by paying attention to the t-value and standardized loading factor (SLF) of each indicator (observed variable) in the measurement model output. An indicator (observed variable) is said to be valid if it has an SLF value of \( \geq 0.50 \) and a t-value of \( \geq 1.96 \). The following table is the results of the measurement model validity obtained from the LISREL 8.51 output.

<table>
<thead>
<tr>
<th>Latent Variables</th>
<th>Indicator</th>
<th>T-Value</th>
<th>SLF</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction</td>
<td>CS1</td>
<td>11.05</td>
<td>0.73</td>
</tr>
<tr>
<td></td>
<td>CS2</td>
<td>12.24</td>
<td>0.79</td>
</tr>
<tr>
<td></td>
<td>CS3</td>
<td>10.25</td>
<td>0.69</td>
</tr>
<tr>
<td>Trust</td>
<td>CT1</td>
<td>12.93</td>
<td>0.82</td>
</tr>
<tr>
<td></td>
<td>CT2</td>
<td>14.59</td>
<td>0.89</td>
</tr>
<tr>
<td></td>
<td>CT3</td>
<td>10.11</td>
<td>0.69</td>
</tr>
<tr>
<td>Commitment</td>
<td>CC1</td>
<td>13.98</td>
<td>0.86</td>
</tr>
<tr>
<td></td>
<td>CC2</td>
<td>17.27</td>
<td>0.97</td>
</tr>
<tr>
<td></td>
<td>CC3</td>
<td>14.91</td>
<td>0.89</td>
</tr>
<tr>
<td>Special Treatment</td>
<td>ST1</td>
<td>12.41</td>
<td>0.79</td>
</tr>
<tr>
<td></td>
<td>ST2</td>
<td>14.87</td>
<td>0.89</td>
</tr>
<tr>
<td></td>
<td>ST3</td>
<td>16.23</td>
<td>0.94</td>
</tr>
<tr>
<td></td>
<td>ST4</td>
<td>15.57</td>
<td>0.92</td>
</tr>
<tr>
<td>Program Value</td>
<td>PV1</td>
<td>13.80</td>
<td>0.86</td>
</tr>
<tr>
<td></td>
<td>PV2</td>
<td>14.30</td>
<td>0.88</td>
</tr>
<tr>
<td>Company Loyalty</td>
<td>PV3</td>
<td>11.87</td>
<td>0.78</td>
</tr>
<tr>
<td></td>
<td>PV4</td>
<td>12.72</td>
<td>0.81</td>
</tr>
<tr>
<td></td>
<td>PL1</td>
<td>14.58</td>
<td>0.88</td>
</tr>
<tr>
<td></td>
<td>PL2</td>
<td>15.64</td>
<td>0.92</td>
</tr>
<tr>
<td></td>
<td>PL3</td>
<td>14.91</td>
<td>0.89</td>
</tr>
<tr>
<td></td>
<td>PL4</td>
<td>15.77</td>
<td>0.92</td>
</tr>
</tbody>
</table>
Based on Table 1 above, it can be seen that all indicators (observed variables) of each research variable have a t-value above 1.96 and the standardized loading factor (SLF) value is above 0.5. Therefore, it can be concluded that all variables in this study are declared valid and can be used for further testing and analysis.

**Reliability Analysis Result**

The research conducted a reliability test using LISREL 8.51 data processing software. Reliability test analysis is done by considering the Composite Reliability (CR) and Variance Extracted (VE) values of each latent variable in the measurement model output that has been further processed. A variable is considered reliable if it has a CR value ≥ 0.70 and VE value ≥ 0.50. The following is the table of measurement model reliability test results obtained from LISREL 8.51 output.

<table>
<thead>
<tr>
<th>Latent Variables</th>
<th>Indicator</th>
<th>SLF</th>
<th>Error</th>
<th>Composite Reliability</th>
<th>Variance Extracted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction</td>
<td>CS1</td>
<td>0.72</td>
<td>0.47</td>
<td>0.79</td>
<td>0.56</td>
</tr>
<tr>
<td></td>
<td>CS2</td>
<td>0.79</td>
<td>0.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CS3</td>
<td>0.69</td>
<td>0.49</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust</td>
<td>CT1</td>
<td>0.82</td>
<td>0.34</td>
<td>0.84</td>
<td>0.64</td>
</tr>
<tr>
<td></td>
<td>CT2</td>
<td>0.89</td>
<td>0.23</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>CT3</td>
<td>0.69</td>
<td>0.52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Commitment</td>
<td>CC1</td>
<td>0.86</td>
<td>0.25</td>
<td>0.93</td>
<td>0.82</td>
</tr>
</tbody>
</table>
Based on the table above, this research collected the variable of the research which are Composite Reliability (CR) and Variance Extracted (VE) values of each latent variables in the measurement model output that has been further processed. All research variables except destination image have Variance Extracted (VE) values above 0.5 so that satisfaction, trust,
commitment, special treatment, program value, program loyalty, involvement experiences and company loyalty are stated to have good reliability. Therefore, it can be concluded that all variables in this study are declared reliable.

**Hypotheses Analysis Result**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H1</strong></td>
<td>Satisfaction has a positive influence on building customer trust</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>T-Value</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>12.96</td>
<td>The hypothesis is accepted, the data supports the hypothesis</td>
</tr>
</tbody>
</table>

**Trust has a positive influence on building customer commitment.**

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H3</strong></td>
<td>Commitment has a positive influence on company loyalty.</td>
</tr>
<tr>
<td><strong>H4</strong></td>
<td>Special treatment benefits have a positive influence on program loyalty.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>T-Value</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.81</td>
<td>The hypothesis is accepted, the data supports the hypothesis</td>
</tr>
<tr>
<td>6.77</td>
<td>The hypothesis is accepted, the data supports the hypothesis</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H5</strong></td>
<td>Program value has a positive influence on program loyalty.</td>
</tr>
<tr>
<td><strong>H6</strong></td>
<td>Program Loyalty has a positive influence on involvement experiences.</td>
</tr>
<tr>
<td><strong>H7</strong></td>
<td>Involvement experience has a positive impact on company loyalty.</td>
</tr>
<tr>
<td><strong>H8</strong></td>
<td>Program Loyalty has a positive influence on company loyalty.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>T-Value</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.82</td>
<td>The hypothesis is accepted, the data supports the hypothesis</td>
</tr>
<tr>
<td>8.04</td>
<td>The hypothesis is accepted, the data supports the hypothesis</td>
</tr>
</tbody>
</table>
4. CONCLUSIONS

In the context of Pertamina’s gas stations offering MyPertamina program, there are only few research that have studied this two types of loyalty, namely program loyalty and company loyalty. In conclusion, this study has made a significant contribution on determining and understanding the relationship between company loyalty and program loyalty by identifying every variables that mediating the journey of the customers to the company and program loyalty. By using the theoretical analysis to the case study of MyPertamina loyalty program, the following are the results of each hypothesis test that has been carried out.

According to this study there is a positive influence between the customer satisfaction and trust. It is proven that Pertamina gas stations has succeeded in giving the impression of satisfaction which continuously increase and became a customer trust. In the trust variable, the important thing for consumers is that they acknowledge that they believe that Pertamina's gas stations will maintain the quality of their products and provide the best service so that, even though they require certain businesses, they are committed to refueling at Pertamina's gas stations.

In the context of using the MyPertamina program, special treatment (benefits) have a positive influence on program loyalty. The convenience provided by Pertamina gas stations to customers of MyPertamina members is different from non-members and this convenience has triggered customers to be loyal on using and repurchasing with MyPertamina program. Then, program value has a positive influence on program loyalty. The values and benefits of the MyPertamina are shown with rewards, promotions and free refuel. In the context of using the MyPertamina program, the significant influence from these variables shows that what attracts the customers to register themselves as members of MyPertamina is because they are more concerned with the economic benefits of the program compared to the special treatments. The more the value that MyPertamina program offered, the higher the level of customer loyalty towards the program in the future. Loyalty program has significantly increased the customer relevance of the experiential benefits of the source brand, thereby increasing the customer’s level of involvement with brand experiences. The members of MyPertamina program are tend to be more conscious and involved in the way they are being treated and they have expectations of being treated in a certain (special) way. In this case, the customer of Pertamina gas stations described that their buying fuel experiences with MyPertamina will not influence them to increase their loyalty to PT Pertamina as a company. Finally, the customer thought that their experiences will not have any influence or connection with the attitudinal loyalty towards the brand.

It can be concluded that In the context of using the MyPertamina program, a loyalty program has succeeded in attracting new customers but has not yet reached the level of loyalty to Pertamina's gas stations effectively. This research reflects the same result with the result of Evanschitzky (2012) which concluded that customers differentiate between loyalty to a company and loyalty to a loyalty program, yet little is known about the consequences of these two types of loyalty. The study implies that company loyalty primarily attracts customers to a particular provider and program loyalty ensures that the company is succeed to attract new customers.

Managerial Implications

Based on the explanation int the previous section, it is proven that the industry is making huge investments in order to develop their own loyalty program for its customers. The purpose of this loyalty program is to create the behavioural and attitudinal loyalty among its customers. But in fact, this behavioral loyalty could be shifted any time. This case study shows that there are two paths that bring customer to the program loyalty which are the perceived value and special treatment. Then, three paths to bring customer to the company loyalty which are the customer satisfaction, trust and commitment. Finally, the involvement experiences is the mediator between company loyalty and program loyalty.
With the context of MyPertamina program, this study suggests that in the process of designing a loyalty program, the managerial has to consider the perceived value or functional value for their customer. They have to provide their customer with the new beneficial experiences which will be more touching to the heart of the customers. Experiences that directly involve the customer will keep them excited and remember about the brand at any time. This will give a clear understanding of the attitudinal changes in the customer’s mind. Those latent variables connecting the process which also can be used in order to monitor the performance and evaluate the effectiveness of a loyalty program.

Research Limitations and Future Research Recommendations

In the academic perspective, this research brings a contribution as a method to analyze the performance of customer loyalty programs. But in the other hand, this study has several limitations which are considered as the area of improvement for the future research. Firstly, the limitation of this research is because it is based on the responses of the survey which are distributed to the member of loyalty program in the context of MyPertamina loyalty program. We recommend to the future research to create a longitudinal study to show how effective the program loyalty and company loyalty can adapt with the customer’s attitude dynamics. Secondly, the limitation in the study is that this study has not yet include the sales level that impacted year after year, in the context of Pertamina gas stations since using the loyalty program of MyPetamina. It is because that MyPertamina program has just launched at the end of 2017, there are no references that can support this initial research. For the future research, those data could increase the level of accuracy and benefits for the research. Hence, this study also only use one sample context of loyalty program which may not give a comprehensive description.

Finally, this study suggest the future research to keep continue explore on the other additional variables that has an impact on the customer’s mind to program loyalty and company loyalty, such as the communication effectiveness factors. In addition, it is recommend to the next study to conduct several experiments to identify the new conceptual framework which could drive the customers from the program loyalty to the company loyalty.

REFERENCES

The Effect of Brand Ambassador, Web Design, and Customer Trust on Purchasing Decision at Elevania.co.id Site

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Dede Afriani
Mercu Buana University, Indonesia

Abstract

This research aimed to understand comprehensively the effect of Brand Ambassador, Web Design, and Customer Trust on Purchasing Decision at Elevania.co.id. Respondents of the research are active students of Management Department at Mercu Buana University. This research has been done by sharing questionnaires to 306 respondents and using quantitative approach. Data analysis tool of the research used was SEM/PLS. Finding of the research exemplified that t-test of Web Design and Customer Trust had significant effect on Purchasing Decision at Elevania site and the other way around, Brand Ambassador had not significant effect on Purchasing Decision at Elevania site.

Keywords: brand ambassador, web design, customer trust, purchasing decision

1. INTRODUCTION

Currently globalization has been effect on world economy transition that is more integrated and interrelated. As consequence, each country has been boosted to have identity uniquely and typically in market and production process. It has impact on globe economy transformation which engenders communication technology development rapidly and communication system like smartphone. Innovation on smartphone has immensely effect on e-commerce development since community may earn goods or things needed by online shop.

Moreover, online shop has grown up by integrated system on smartphone, means it opens access and opportunity for e-commerce Company to expand market and stick up loyalty consumer. By the condition, technology development and smartphone innovation provoke among e-commerce competition around the world being competitive.

Online shop Service Company is demanded to enlarge its marketing strategy and customers trust to stick up company’s purchasing rate and allure, and promote consumer’s loyalty. Nowadays, e-commerce has developed well in Indonesia and competition is
dominated by huge e-commerce corporations and having good credibility. They compete to attract customer as much as possible. Number of customers achievement had been attained by thirteen e-commerce corporations as follows:

![Image](https://id.techinasia.com/survei-website-ecommerce-populer-indonesia)

**Figure 1.** The best E-commerce company of 2014 in Indonesia

*Source: [https://id.techinasia.com/survei-website-ecommerce-populer-indonesia](https://id.techinasia.com/survei-website-ecommerce-populer-indonesia) (In September 16, 2014)*

The figure 1. indicated that there were 13 best e-commerce companies of 2014 in Indonesia. Lazada was one of the best e-commerce companies in Indonesia occupied first position. Completely, the following is provided e-commerce rank in Indonesia.

**Table 1. E-Commerce Rank of 2014 in Indonesia**

<table>
<thead>
<tr>
<th>Rank of Popular</th>
<th>E-Commerce</th>
<th>PBI</th>
<th>IR</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lazada</td>
<td>29.2</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>OLX</td>
<td>22.1</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Bermaina</td>
<td>8.5</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>PJB Kaskus</td>
<td>8.1</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Zalora</td>
<td>5.3</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Qlozi</td>
<td>3.8</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Tokopedia</td>
<td>3.4</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Raksun</td>
<td>2.4</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Bhinneka</td>
<td>2.1</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Bibi</td>
<td>1.8</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Groupon Dides</td>
<td>1.4</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>eleveisa</td>
<td>1.3</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Berryonicia</td>
<td>1.2</td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>Bukalapak</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Livingsocial</td>
<td>0.5</td>
<td></td>
</tr>
</tbody>
</table>

*Source: [https://id.techinasia.com/survei-website-ecommerce-populer-indonesia](https://id.techinasia.com/survei-website-ecommerce-populer-indonesia) (In September 16, 2014)*

Elevania was on the top rank, 12 of e-commerce companies in Indonesia. The first position was occupied by Lazada. Lazada had not brand ambassador may predispose sale and it was contrast to Elevania had it may predispose sale and customer to purchase. However, it was on 12th of e-commerce companies in Indonesia.

Information technology industry peruses e-commerce activity as application and e-
business manifestation concerning to commercial transaction, such as: capital transferred electronically, supply chain management (SCM), electronic marketing (e-marketing), online marketing, online transaction processing, or electronic data interchange (EDI).

E-commerce term has changed with the time flies. Initially, it means commercial transaction use, like EDI to send commercial document as invoice electronically.

Then, E-commerce has grew up and the term change to be “web trade” - an activity refers to goods and services purchasing through World Wide Web and secure server, HTTPS. They are specific protocol use encryption in protecting consumer’s important data. It can be confirmed by internet population and user has grown up continuously in Indonesia. The following Table 1.2 highlights it.

### Table 1.2. Internet Population and User in Di Indonesia

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Users</th>
<th>Population</th>
<th>% Pen.</th>
<th>GDP p.c.*</th>
<th>Usage Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>2,000,000</td>
<td>206,264,595</td>
<td>1.0 %</td>
<td>US$570</td>
<td>ITU</td>
</tr>
<tr>
<td>2007</td>
<td>20,000,000</td>
<td>224,481,720</td>
<td>8.9 %</td>
<td>US$1,916</td>
<td>ITU</td>
</tr>
<tr>
<td>2008</td>
<td>25,000,000</td>
<td>237,512,355</td>
<td>10.5 %</td>
<td>US$2,238</td>
<td>APJI</td>
</tr>
<tr>
<td>2009</td>
<td>30,000,000</td>
<td>240,271,522</td>
<td>12.5 %</td>
<td>US$2,329</td>
<td>ITU</td>
</tr>
<tr>
<td>2010</td>
<td>30,000,000</td>
<td>242,968,342</td>
<td>12.3 %</td>
<td>US$2,858</td>
<td>ITU</td>
</tr>
<tr>
<td>2016</td>
<td>88,000,000</td>
<td>258,316,051</td>
<td>34.1 %</td>
<td>US$3,650</td>
<td>APJI</td>
</tr>
</tbody>
</table>


It can be seen in the Table 1.2 that internet user rate in Indonesia from 2000 through 2016 was continuous increased. In 2000, the number of internet user was 2,000,000 and 2016 highly mounted into 88,000,000 users. From the data we knew that internet has immensely effect in Indonesia in some aspects, they are information search, online forum on particular website, or online trade transaction.

By online shop site, a businessman may touch market target wider and quite cheap compared to ordinal way or offline. Plentiful businessmen have marketed their merchandises through online and they usually use forum and social media network sites facility and one of them is Elevania.

Elevenia is type classified or classified advertisement list. The sites are being facilitator only to interact between seller and customer. Subsequently, it simplifies prospective seller to advertise their products and eases customer in purchasing decision making.

Elevenia is open marketplace introduced by XL Axiata and SK Planet from Korea where the total investment, USD 60 million. The investment allocated to marketing activities and Elevania platform development as well, in order to more maximum in servicing customer and seller.

Concerning to platform and service, Elevania, currently, has been refining quality, mainly on mobile platform which common people just looking for the product by
mobile phone first, then they are going to transact by desktop.

Brand Ambassador is marketing term for individual or group to be employed and contracted by organization or company to promote a brand in product and service. They addressed to consummate company’s identity in performance, attitude, value, and ethic.

Main element of brand ambassador is laid on its capability to apply promotion strategy which strengthen customer and allure follower to buy much more product. A brand ambassador is known as positive speaker that informing positive things of appointed brand to be internal or external agent in uplifting sale purpose of the brand in product or service.

Elevania’s Brand Ambassador was Raisa Andriana or common known with RAISA, a talent and young Indonesian singer has been new brand ambassador for Elevania. She is beautiful woman and has pretty voice which was being idol bringing Elevania into glory and colourful.

Raisa argued that long time ago she was rather selective to have long term commitment with e-commerce, however, she just met Elevania and feel click immediately. She agreed to join with it since according to her it was precise partner in inspiring many people to have better life in future. Elevania has own slogan as online shop site that prioritising customer’s happiness.

Elevania assumed that has been ready to step forward and more aggressive to have progress in Indonesian e-commerce with Raisa caused she was young, most talent soloist, consistent and full heart or all out for her career. This was in line with Elevania which was consistent and all out to share experience in best online shop for Indonesian people.

Various daily needed may be found in Elevania and provided discount to appeal customer in directly accessing its site and purchasing decision.

By Brand Ambassador exist which has bargaining position for every company, Web Design as well has effect on purchasing decision making and consumer to promote purchasing power at Elevania site.

Web design is kind of appointed graphic design in developing and styling object information of internet environment and provide consumer feature in high-end, quality and aesthetic. The proposed definition separates web design with web programming and emphasize functional feature of the website, and web design position as graphic design.

Referring to the phenomena, it can be discerned that Elevania as one of the biggest online shop in Indonesia have not competed yet with Lazada’s popularity, and interesting one of the issue is how Elevania sets strategy to elevate its consumer’s purchasing decision and it is being a top rank online shop in Indonesia.Purchasing is consumers’ decision in term of what they have bought, whether buying or not, when, where, and how they pay. Based on the definition that purchasing decision is being dependent variable in the research whether consumer decides to purchase at Elevania or not.

On the other hand, before deciding to purchase, it has some factors need to be considered and two of them are customer trust to transact by online in certainty, and unsymmetrical information. Consumer trust on e-commerce is key point in online trade and it is trust for easiness use-user believes that technology or system used easy and free from any issues.

On the other side, trust is a factor predisposes purchasing decision has been studied by Setiawan and Achyar (2012) under tittle, “Effects of Perceived Trust and Perceived Price on Customers’ Intention to Buy in Online Store in Indonesia”. The study
indicated that trust had significant effect on consumers’ purchasing decision. Ample of researchers have analysed those variables are mentioned above. Some of their findings can be stated as follows:

Sitorus and Utami Nugrahani (2013) articulated that Brand Ambassador had high effect on purchasing decision. While, according to Ligia Stephani, Yuliana Rahma Putri, and Sylvie Nurfebrianing (2016), Brand Ambassador had not high effect on consumer’s decision to buy product.

Stefanie Dwipuspita, Slamet Mulyana, and Funny Mustikasari Elita (2012) & Ana Ramadhayanti (2016) reported that web design had significant effect on purchasing decision.

2. LITERATURE REVIEW

*Brand Ambassador*

Brand Ambassador is icon of culture or identity where they behave as marketing tool. Additionally, they represent individual achievement of human being triumph and product commodification and commercialization. Turner, Bonner & Marshall (2012) asserted that increasingly, celebrities are being asked to take on a certain amount of cultural activism as among the obligations which come with their visibility.

According to Terence Shimp (2010), Brand ambassador is commonly public figures has popularized worldwide, for instance singer, actor or actress, athlete and etcetera. S/he then may be as facilitator between consumer and company’s voice, since consumer more entrust on consumer voice instead of company’s voice.

*The Dimension and Indicator of Brand Ambassador*

According to Lea-Greenwood (2012), a brand ambassador is a tool used by companies to communicate and connect with the public, regarding how them actually enhances sales. Furthermore, Lea-Greenwood (2012) elaborated ambassador aspects as follows:

1. Transference is when a celebrity endorses a related brand to his or her occupation.
2. Congruence is key concept on brand ambassador which ensures that any compatibility between brand and the celebrity.
3. Credibility is consumer learn from a source (Ambassador) has relevant insight, skill or experience and can be trusted to share objective and extraordinary information.
4. Allure is non-physical performance that promotes either product or advertisement.
5. Power is reflected charisma by interviewee to predispose consumer, as the result consumer buys or consumes the product.

*Web Design*

Web Design is common term used to cover how web content displayed (generally, it looks like hypertext or hypermedia) which to be sent to end user through World Wide Web and by a browser or software web based. Web design aims to create website/set of online content it includes document and application are on website server.

A website may be set of text, picture, voice, and the other content. They are interactive and static. According to Patrick Lynch (2010), good web design site are:

1. Balancing structure and relationship to menu or home page by page content or graphic and document in the link.
2. The purpose is developing hierarchy of menu and page in natural and good regulated for users, and does not disturb website use or misguide them.
**Dimension and Indicator of Web Design**

Sam and Tahir (2010) analysed web design in some points of view.

1. Usability is quality mark which learnable, useable, and provoke users to use system as positive aid in accomplishing any tasks.
2. Quality information is how far consistently satisfying any requirement and users expectation which need the information to process them.
3. Trust is customers’ belief on website display to get information of product before purchasing decision. Perceived risk is individual and subjective belief in rendering risk going to be accepted when buying a product.
4. Empathy to purchasing intention: somebody’s motive to buy a product and the reason why s/he buys it.

**Customer Trust**

Trust is business foundation. A business transaction between two or more parties will be dealt if each party has trust. Trust is not acknowledged by other party/colleagues at all, but also it should be preserved start from beginning and verifiable.

Gefen (2010) defined trust as intention to sense of what they have been done by people whom assigned depending on belief and responsibility.

**Dimension and Indicator of Trust**

According to Mayer (2011), somebody’s trust forming factors on the others are 3, namely ability, benevolence, and integrity. Those factors may be described as follows:

3. Ability
   Ability refers to seller/organization competence and characteristic predisposing and authorizing particular area. In this case, how seller provides, services, and protects transaction of any disruption from other party. It means that consumers have guarantee, satisfaction and security in transaction from seller.

4. Benevolence
   Benevolence is seller wish to offer mutual satisfaction and profit between seller and consumer. The earned profit can be maximized, but consumer satisfaction is high as well. Sellers not consider having maximum profit at all, but also have big attention to satisfy their consumer. According to Kim et al. (2013), benevolence covers attention, empathy, trust, and acceptance power.

5. Integrity
   Integrity relates seller’s attitude or habit in doing his/her business. The shared information to consumers is whether truly fact or not. Sold product quality whether credible or not. Kim et al. (2012) proposed that integrity may be discern in fairness, fulfilment, loyalty, honestly, dependability and reliability.

**Conceptual Framework**

Based on the theoretical framework and relevant researches, the researcher would like to elucidate framework of thinking logically. To govern core problem, the researcher had initiative to arrange conceptual framework based on variable to analyse.
3. RESEARCH METHODOLOGY

Process taken in the research started from April through December 2017. Subject used of the research was active and regular student of Management Department, Faculty of Economy and Business, Mercu Buana University.

Research Design
The research employed causal analysis method. Causal analysis is causative relation. The research aimed to know the effect of one or more independent variables (exogenous variable) on dependent variable (endogen variable). Independent variable or exogenous variable predisposes or causes change or raises dependent variable on the other hand, dependent variable or endogen variable is affected or impacted by independent variable (Sugiyono, 2009).

Definition and Operational Variable Definition of Variable
Variable is everything to be defined by researcher in analysis to have information about it, then it deduced or to be an attribute, characteristic or value, object or activity that has particular variation defined by researcher to be analysed and inferred (Sugiyono, 2009). Variable of the research can be elucidated below:

1. Independent variable denotes variable which predisposes or has effect on change or raises dependent variable. In SEM (Structural Equation Modelling), independent variable is called as exogenous variable (Sugiyono, 2009). Exogenous variable of the research was brand ambassador, web design and customer trust.
2. Dependent variable is affected or impacted by independent variable (Sugiyono, 2009). In SEM dependent variable is called as endogen variable.

Operational Variable
Operational variable is other helpful scientific information to help similar research (Sugiyono, 2009). On the other hand, operational variable is other helpful scientific information to help researcher in using same variable. It signifies indicators used to quantify variable in detail.
Variable Quantifying Scale

Variable quantifying conducted by likert scale-quantifying method by enumerating number based on its grade. Every respondent was asked to agree or not on each question and it provided scale from 1 (strongly disagree) to 5 (strongly agree).

4. FINDING AND DISCUSSION

Elevenia is online shop site in Indonesia by concept of open marketplace and offering easiness and protection to transact. This site offers any products to online shop lovers. Up to date, it offered more than 2 million products from 16,000 sellers which 8 categories: fashion, beauty/health, babies/kids, home/garden, gadget/computer, electronic, sports/hobby, service/food.

The Result of Descriptive test

<table>
<thead>
<tr>
<th>Table 3. Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
</tr>
<tr>
<td>Male</td>
</tr>
<tr>
<td>female</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Source: Output of SPSS 24 processing

Based on the result of data processing on the Table 3 exemplified that 306 of respondents, 166 respondents or 54.2% were male, while the rest or 140 respondents, 45.8% were female. Moreover, it can be seen that respondent used Elevania.co.id site was mostly female and conformed to questionnaires result.

Doing Online shopping

<table>
<thead>
<tr>
<th>Table 4. Doing Online shopping</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
</tr>
<tr>
<td>Ever</td>
</tr>
<tr>
<td>Never</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Source: Output of SPSS 24 processing

Referring to the result of data processing on the Table 4 appointed that 306 of respondents, 247 of respondents or 80.7% have ever shopped online, meanwhile, the rest, 59 respondents or 19.3% have not ever shopped online. Mostly they have ever shopped online.
**Accessing elevania.co.id Site**

*Table 5. Accessing elevania.co.id Site*

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not highly often</td>
<td>100</td>
<td>32.7</td>
</tr>
<tr>
<td>Often</td>
<td>169</td>
<td>55.2</td>
</tr>
<tr>
<td>Highly often</td>
<td>37</td>
<td>12.1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>306</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Source: Output of SPSS 24 processing

Based on the result of data processing on the Table 5 indicated that 306 of respondents, 169 respondents or 55.2% were highly often accessing Elevania.co.id site, while, 100 respondents have not often accessed it were 100 respondents or 32.7%. Then the rest, 37 respondents or 12.1% were highly often accessed it. Most of the respondents have often accessed Elevania.co.id site.

**Description of Respondents’ Answer**

**Brand Ambassador**

*Table 6. Brand Ambassador*

<table>
<thead>
<tr>
<th>Description of Respondents’ Answer of Brand Ambassador Variable</th>
<th>Minumum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA1</td>
<td>306</td>
<td>1</td>
<td>5</td>
<td>3.86</td>
</tr>
<tr>
<td>BA2</td>
<td>306</td>
<td>1</td>
<td>5</td>
<td>3.88</td>
</tr>
<tr>
<td>BA3</td>
<td>306</td>
<td>1</td>
<td>5</td>
<td>3.88</td>
</tr>
<tr>
<td>BA4</td>
<td>306</td>
<td>2</td>
<td>5</td>
<td>3.71</td>
</tr>
<tr>
<td>BA5</td>
<td>306</td>
<td>1</td>
<td>5</td>
<td>3.88</td>
</tr>
<tr>
<td>BA6</td>
<td>306</td>
<td>1</td>
<td>5</td>
<td>3.65</td>
</tr>
<tr>
<td>BA7</td>
<td>306</td>
<td>1</td>
<td>5</td>
<td>3.86</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>306</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Output of SPSS 2.4 data processing

From the Table, it can be understood that all respondents answer signified indicator of BA6 (3,65) had lowest value. Then, average value of each indicator was BA1 (3,86), BA2 (3,88), BA3 (3,88), BA4 (3,71), BA5 (3,88), BA7 (3,86).
Web Design

Table 7. Web Design

<table>
<thead>
<tr>
<th>Description of Respondents’ Answer of Web Design Variable</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>WD1</td>
<td>306</td>
<td>2</td>
<td>5</td>
<td>3.84</td>
<td>0.765</td>
</tr>
<tr>
<td>WD2</td>
<td>306</td>
<td>1</td>
<td>5</td>
<td>3.90</td>
<td>0.774</td>
</tr>
<tr>
<td>WD3</td>
<td>306</td>
<td>1</td>
<td>5</td>
<td>3.83</td>
<td>0.752</td>
</tr>
<tr>
<td>WD4</td>
<td>306</td>
<td>1</td>
<td>5</td>
<td>3.87</td>
<td>0.766</td>
</tr>
<tr>
<td>WD5</td>
<td>306</td>
<td>2</td>
<td>5</td>
<td>3.75</td>
<td>0.787</td>
</tr>
<tr>
<td>WD6</td>
<td>306</td>
<td>1</td>
<td>5</td>
<td>3.58</td>
<td>0.752</td>
</tr>
<tr>
<td>Valid N</td>
<td>306</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Output of SPSS 2.4 data processing

From the Table, it can be known that all respondents answer illustrated indicator of BA6 (3,65) had lowest value. Then, average value of each indicator was WD1 (3.84), WD2 (3,90), WD3 (3.83), WD4 (3.87), WD5 (3.75).

Customer Trust

Table 8. Customer Trust

<table>
<thead>
<tr>
<th>Description of Respondents’ Answer of Customer Trust Variable</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CT1</td>
<td>306</td>
<td>2</td>
<td>5</td>
<td>3.81</td>
<td>0.727</td>
</tr>
<tr>
<td>CT2</td>
<td>306</td>
<td>1</td>
<td>5</td>
<td>3.77</td>
<td>0.768</td>
</tr>
<tr>
<td>CT3</td>
<td>306</td>
<td>1</td>
<td>5</td>
<td>3.79</td>
<td>0.764</td>
</tr>
<tr>
<td>CT4</td>
<td>306</td>
<td>2</td>
<td>5</td>
<td>3.77</td>
<td>0.734</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
<td>306</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Output of SPSS 2.4 data processing

Referring to table, it can be seen that all respondents answer portrayed indicator of CT2 (3,77) and CT4 (3.77) had lowest value. Then, average value of each indicator was CT1 (3,81), CT3 (3,79).
Table 9. Purchasing Decision

<table>
<thead>
<tr>
<th>Description of Respondents’ Answer of Purchasing Decision Variable</th>
<th>N</th>
<th>Min</th>
<th>Max</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>KP1</td>
<td>306</td>
<td>2</td>
<td>5</td>
<td>3.75</td>
<td>0.728</td>
</tr>
<tr>
<td>KP2</td>
<td>306</td>
<td>1</td>
<td>5</td>
<td>3.74</td>
<td>0.731</td>
</tr>
<tr>
<td>KP3</td>
<td>306</td>
<td>1</td>
<td>5</td>
<td>3.90</td>
<td>0.779</td>
</tr>
<tr>
<td>KP4</td>
<td>306</td>
<td>1</td>
<td>5</td>
<td>3.76</td>
<td>0.747</td>
</tr>
<tr>
<td>KP5</td>
<td>306</td>
<td>2</td>
<td>5</td>
<td>3.88</td>
<td>0.714</td>
</tr>
<tr>
<td>KP6</td>
<td>306</td>
<td>2</td>
<td>5</td>
<td>3.93</td>
<td>0.686</td>
</tr>
<tr>
<td>KP7</td>
<td>306</td>
<td>2</td>
<td>5</td>
<td>3.90</td>
<td>0.819</td>
</tr>
<tr>
<td>KP8</td>
<td>306</td>
<td>1</td>
<td>5</td>
<td>3.84</td>
<td>0.751</td>
</tr>
<tr>
<td>KP9</td>
<td>306</td>
<td>2</td>
<td>5</td>
<td>3.92</td>
<td>0.685</td>
</tr>
<tr>
<td>KP10</td>
<td>306</td>
<td>2</td>
<td>5</td>
<td>3.93</td>
<td>0.769</td>
</tr>
<tr>
<td>KP11</td>
<td>306</td>
<td>1</td>
<td>5</td>
<td>3.77</td>
<td>0.771</td>
</tr>
<tr>
<td>KP12</td>
<td>306</td>
<td>3</td>
<td>5</td>
<td>3.91</td>
<td>0.714</td>
</tr>
<tr>
<td>KP13</td>
<td>306</td>
<td>2</td>
<td>5</td>
<td>3.70</td>
<td>0.862</td>
</tr>
<tr>
<td>KP14</td>
<td>306</td>
<td>2</td>
<td>5</td>
<td>3.77</td>
<td>0.815</td>
</tr>
</tbody>
</table>

Based on the table, it can be acknowledged that all respondents answered that indicator of KP13 (3.70) had the lowest value. Then, average value of each indicator was KP1 (3.75), KP2 (3.74), KP3 (3.90), KP4 (3.76), KP5 (3.88), KP6 (3.93), KP7 (3.90), KP8 (3.84), KP9 (3.92), KP10 (3.93), KP11 (3.77), KP12 (3.91), KP14 (3.77) Data Analysis method by Partial Least Square (PLS)

Convergent Validity

Based on the Figure 2 illustrated that indicator of BA4, BA6, CT3, KP2, KP9, KP13, KP14 had loading factor value 0.50. It was stated invalid and insignificant. Consequently, the indicator was omitted from model.

Fig 2. The Result of Algorithm PLS
**Convergent Validity (Modification)**

The result of convergent validity modification test on the Figure 4.2, it can be perused that all indicators had satisfied convergent validity since factor loading value was above 0.50.

**Discriminant Validity**

*Table 10. Discriminant Validity Test (Fornell Larcker)*

<table>
<thead>
<tr>
<th></th>
<th>Brand</th>
<th>Ambassador</th>
<th>Customer</th>
<th>Trust</th>
<th>Purchasing</th>
<th>Decision</th>
<th>Web Design</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand</td>
<td>0.762</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ambassador</td>
<td>0.697</td>
<td>0.727</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customer</td>
<td>0.656</td>
<td>0.616</td>
<td>0.655</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trust</td>
<td>0.860</td>
<td>0.779</td>
<td>0.717</td>
<td>0.793</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Output of PLS

Referring to the table, it can be discerned that some of loading factors value for all indicators of each latent variable had higher loading factors value than loading value if correlated to other latent variable. It represented that every latent variable had not good latent of discriminant validity, subsequently; the indicator of variable had lowest value and must be omitted from model. The omitted indicators of variable were WD3 and WD6.

*Table 11. The Result of Discriminant Validity Test (Fornell Lacker) (Modification)*
After modifying construct in the table, it can be seen that some of some of loading factors value for all indicators of each latent variable had lowest loading factors value than loading value if connected to other latent variable. It exemplified that every latent variable had good latent of discriminant validity where some of latent variable still had high correlated quantifier to other constructs.

*Average Variance Extracted (AVE)*

**Table 12.** Average Variance Extracted (AVE)

<table>
<thead>
<tr>
<th>Variable</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand Ambassador</td>
<td>0.800</td>
</tr>
<tr>
<td>Web Design</td>
<td>0.788</td>
</tr>
<tr>
<td>Customer Trust</td>
<td>0.666</td>
</tr>
<tr>
<td>Decision</td>
<td>0.570</td>
</tr>
</tbody>
</table>

Source: Output of PLS

From the table, it can be drawn conclusion that square root of Average Variance Extracted (AVE) for every construct was higher than correlation between one construct to another construct in the model. Based on the AVE value, construct of the model estimated satisfying discriminant validity criteria.

*Composite Reliability and Cronbach’s Alpha*

**Table 13.** Composite Reliability and Cronbach’s Alpha

<table>
<thead>
<tr>
<th>Variable</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brand Ambassador</td>
<td>0.800</td>
</tr>
<tr>
<td>Web Design</td>
<td>0.788</td>
</tr>
<tr>
<td>Customer Trust</td>
<td>0.666</td>
</tr>
<tr>
<td>Decision</td>
<td>0.570</td>
</tr>
</tbody>
</table>

Source: Output of PLS
Based on the table, it can be discerned that the result of Composite Reliability and cronbach alpha test appointed satisficed value, namely all latent variables have been reliable caused they composite reliability and cronbach alpha value ≥ 0.70. Hence, it can be inferred that, questionnaire used as instruments of the research were reliable or consistent.

*R-square Value*

**Table 14. R² Value of Endogen Variable**

<table>
<thead>
<tr>
<th>Endogen Variable</th>
<th>R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purchasing Decision</td>
<td>0.461</td>
</tr>
</tbody>
</table>

Source: Output of PLS

Referring to data, it can be deduced that R-Square value was 0.461, it meant that purchasing decision may be described by three variables in the model, are Brand Ambassador, Web Design, and Customer Trust 46.1%. Meanwhile, 53.9% was elaborated by other variable outside of the research, like promotion, product quality, and lifestyle.

*The Result of Hypothesis Test*

**Table 15. The Result of Hypothesis Test**

| Original Sample (O) | Sample Mean (M) | Standard Deviation (STDEV) | T Statistics (|O/STDEV|) | P Values |
|---------------------|-----------------|----------------------------|-----------------------------|---------|
| BA                  | 0.197           | 0.216                      | 0.137                       | 1.443   | 0.150 |
| KP                  | 0.192           | 0.195                      | 0.081                       | 2.361   | 0.019 |
| CT-                 | 0.343           | 0.325                      | 0.157                       | 2.183   | 0.029 |

Source: Output of PLS
Discussion

a) Brand Ambassador had not significant effect on purchasing decision since T statistic < T table (1.443 < 1.96) and hypothesis was accepted. The finding of the research strengthened Samosir’s (2016) study who declared that brand ambassador had not high effect on consumer’s decision to buy product. Additionally, it was not consumer’s reference to decide buying a product, although it had high and good but it was not guarantee for somebody going to belief in making decision to buy. Not all people were fanatic in the Brand Ambassador; even they did not like him/her, as the result, it engender consumers’ intrust if they have to transact with the company.

b) Web Design had significant effect on purchasing decision since T statistic > T table (2.181 > 1.96) and hypothesis was accepted. The finding of the research reinforced Ramadhayanti (2016), and Stefanie Dwipuspita’ (2012) study who uttered that Web Design had significant effect on purchasing decision caused better web design had positive correlation in purchasing decision. The high consumers’ trust then purchasing decision was getting positive.

c) Customer Trust had significant effect on purchasing decision since T statistic > T table (2.361 > 1.96) and hypothesis was accepted. The finding of the research was in line with Hartiwi Prabowo (2014), Wawan Hermanto (2016), Cecilia (2016), Ananda Cahya Hardiawan’s (2013) studies who proposed that Customer Trust had significant effect on purchasing decision. It portrayed that the importance of customer trust caused the higher it then trust was getting strong in entrusting the company to buy any product.

5. CONCLUSION AND SUGGESTION

After researcher scrutinizing and elucidating in discussion of the previous section concerning to effect of Brand Ambassador, Web Design, and Customer Trust on Purchasing Decision at Elevania.co.id site then it can be drawn conclusion as follows:

a. Brand Ambassador had no effect on purchasing decision at Elevania.co.id site. Hence, it can be deduced that Brand Ambassador factor was not being main reference for consumer in purchasing decision and buying at the site.

b. Web Design had effect on Purchasing Decision Elevania.co.id site. It meant that, the better web design displayed then it provoked consumers’ interested in purchasing decision to buy at the site.

c. Customer Trust had significant effect on purchasing decision at Elevania.co.id site. Therefore, it can be inferred that the higher consumer trust then it predisposed to purchase at the site.

Based on the conclusion posed then it can be delivered suggestion to be consideration either for company or the next researcher, they are as follows:

a. The lowest respondents’ value answers of Brand Ambassador were on sixth indicator. It meant that partially respondent dislike Raisa’s performance which is feminine and elegant. In consequence, suggestion may be as consideration for Brand Ambassador to keep in good performance and allure consumers buying at the site.

b. The lowest respondents’ value answers of Web Design were on sixth indicator. It can be stated that partially respondents were hesitate if Elevania was the site of
consumers’ preference to buy a product. The suggestion may be as consideration for web design is keeping it in attractive, simple, and easily understood display for consumers. The more interested, then consumers’ intention is getting high to choose and purchase any products at the site.

c. The lowest respondents’ value answers of Customer Trust were on second indicator. It meant that mostly respondents were hesitated to Elevania’s credibility. Subsequently, suggestion may be as consideration for Customer Trust, is company should pay attention carefully in verifying joint venture seller within it to avoid cheating which impactful to prospective buyers and customers are uncomfortable.

Concerning to the result of R-Square test that was 46.1% only. Therefore, suggestion may be as consideration for the next research to be analysed may enlarge samples to have an accurate research, doing research in other areas by different characteristic of respondents and to be reference to elucidate unclear variable of the research may predispose Purchasing Decision, like promotion product quality and lifestyle. Consequently, it clarifies things that have effect on purchasing decision of online shop transaction.

REFERENCES

Erlangga.
Abstract

Technology advancement in computation has changed the way we work in the last two decades, from how we exchange information to the way we generate content. Therefore, the current workforce has a necessity to always keep up to date with the latest technology to be able to compete and stay relevant. Formal higher education institutions in Indonesia are still the main supplier of the workforce for industries. Most of the time higher education could not prepare the student to become a future workforce as it is only allowed to make a major change in its curriculum in every 4-5 years. Slower than the advancement occurred in computation technology. Small startup such as ProCodeCG anticipates the demand by providing courses with the latest skill set required to keep up with the competition. In this paper, we compare the student perspective between formal and informal course. We extracted the courses attributes by interviewing each course participants and analysed the data using the Kano Model. However, students view course that is provided by non-formal institution mostly because of its excitement attribute that is not directly related to their needs. We also highlight some comparable attributes from both courses that education startup or educator interested in improving their product/service performance.

Keywords: kano model; start-up; non-formal education; formal education
1. INTRODUCTION

Education and training have become one of the main concerns in 21st-century business. The rapid development of technology is one of the biggest factors that push the workforce around the globe to keep learning new things in order to be relevant in the job market. Smarter economy accelerated by the ubiquitousness of smarter machines and tools has been eliminating jobs and creating new jobs at the same time. Automation in manufacturing, for example, has been a double edge sword. In one side it improves efficiency, on the other side, there is less need for manual labour. In one point of view, this technology advancement will increase unemployment. In another point of view demand of workforce that have skillset related to automation technology is increasing (Vermeulen, 2018). One of several popular solutions to reduce unemployment is to train the existing workforce with new knowledge (Comms-Kumpula, 2018). This is where the education startup tries to answer the opportunity.

Formal education institution in Indonesia is still the main source for the industry to get the workforce. National education system law (UU No. 20 Tahun 2003) allows institutions to provide formal and non-formal education service. Ministry of Research, Technology and Higher Education, through Permenristekdikti No. 44 Tahun 2015, provide a standard for formal education institution to develop and evaluate their curriculum. With a typical study duration of 4 years for a bachelor’s degree, a higher education institute can only evaluate and implement new curriculum every 4 years at least.

On the contrary, non-formal education startup could provide a much shorter program, from a one-day crash course up to weeks. While formal education institute has an obligation to provide fundamental and theoretical skill on its course, non-formal education startups focus on providing practical skill training. They may take as an online training form (such as Udemy.com) or more conventional offline in-class training (such as ProCodeCG). Both of startup types offer content from the latest technology at a low price.

ProCodeCG is an education startup that has been in business since 2014. It focuses its business to teach children and women on using practical technology such as web programming, microcontroller, or creating computer games.

This paper presents a comparison of attributes between formal education institution product and non-formal education startup product. We use the Kano Model to extract product features from its users. In this paper courses of ProCodeCG will be referred to as a non-formal product, and the course from formal education institution will be referred to as formal product by using the previous article about entrepreneurship education in formal education by Garmaisa and Sisilia (2014).
2. LITERATURE REVIEW

Kano model is developed to explain user satisfaction that is related to product quality. Instead of directly comparing product performance and user expectation, Kano model differentiates product performance into four types. Each type of the category groups product attributes into basic attributes (must-be; the presence of a service will not affect the level of satisfaction, while the absence of these things will greatly reduce customer satisfaction), performance attributes (one-dimensional; Customer satisfaction will depend on the fulfilment of this category and is linearly related to the performance attributes), attractive attributes (consumers will feel more satisfied with the improved performance attributes. However, the decline in performance attributes will not cause a decrease in the level of satisfaction), and irrelevant attributes (indifferent; this category couldn't really influence the level of consumer satisfaction, neither the presence nor the absence of them) (Arefi et. al. 2012). Through this model, Kano argued that not all effort to improve attributes directly affects user satisfaction. Putting effort in incorrect attributes, for example improving attribute that is included in the indifferent category, would waste the company’s resources.

Attributes in this research are defined by ProCodeCG owner and its users through an online and offline interview. We generate a pair of questions using the Kano Model (Kano, 1984) (functional form and dysfunctional form) to rate user perception towards product attributes. The questionnaire feedback uses a rating scale to measure how does a user feel if an attribute works well (functional form) and doesn’t work well (for dysfunctional form). We use 5 levels of rating scale: Dislike it, Live with, Neutral, Expect it, and Like it.

To analyse the result, we use DuMouchel methodology (DuMouchel, 1993). The answers are quantified by giving asymmetric weight (with range -2, -1, 0, 2, 4) for each functional and dysfunctional form. Thus “Like it” answer for functional form question would be given 4 as its weight, as well as “Dislike it” answer for dysfunctional form question. DuMouchel argues that attributes with positive weight have a stronger perception than the negative one, thus should be more emphasised by giving a larger score. After calculating the average weight of each attribute from all respondent, the attributes will be plotted on a plane chart. The position of an attribute in the chart would determine the category of that particular attribute (Figure 1).

The must-have attribute is expected to appear on every product as this is the main reason a user use such product. Performance attribute, along with the attractive on, would be the main driver of user satisfaction. They can be the competitive advantage of a product too, but only when its must-be attribute works well.

To explore more about the characteristic of a non-formal product users, we use the technology adoption lifecycle framework (Moore, 2014). ProCodeCG as an education startup in Indonesia is known for its up-to-date technology-related
course. Technology adoption lifecycle framework is used to map the users of a non-formal product.

Moore (2014) defines 5 categories of users in adopting new technology based on the work of Bohlen in agricultural (Bohlen, 1957): Innovators, Early adopters, Early majority, Late majority, and Laggards (Figure 2). Early consumers of a new product are usually Innovators and Early adopters. These type of consumers are willing to take risks using new product and doesn’t require many endorsers to influence them in purchasing such products. Generally, they are well educated or have more technical knowledge compare to mainstream consumers.

The mainstream consumers, both early and late majority, are the mainstream ones (Moore, 2014). They are more conservative in consuming products and purchase a new product once the cost has gone down and it has started to become standard. And the last category is laggard, the most conservative type of consumer. They are the smallest in number compare to the other categories and essentially refuse to adopt any new product or technology.
3. RESULT AND DISCUSSION

There is 29 number of attributes had been collected from respondents, including staffs and users of ProCodeCG (Table 1). Based on these attributes, we generate a questionnaire, a pair of questions for each attribute. These questions check how does a user feel when one attribute is fully functioned and when it is not fully functioned (or even when it is not functioned at all). This study uses 13 respondents from the users of ProCodeCG, each of them at least has completed one course provided by the startup.

Table 1. Attribute list of ProCodeCG Product

<table>
<thead>
<tr>
<th>No.</th>
<th>ATTRIBUTES</th>
<th>No.</th>
<th>ATTRIBUTES</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Daily Small Challenge</td>
<td>16</td>
<td>Comfortable and air conditioned room</td>
</tr>
<tr>
<td>2</td>
<td>Capstone Project</td>
<td>17</td>
<td>Training location distance</td>
</tr>
<tr>
<td>3</td>
<td>Up-to-date Curriculum</td>
<td>18</td>
<td>Fixed schedule</td>
</tr>
<tr>
<td>4</td>
<td>Modul content by-request</td>
<td>19</td>
<td>Code camp</td>
</tr>
<tr>
<td>5</td>
<td>Ready-to-work curriculum</td>
<td>20</td>
<td>Fixed place</td>
</tr>
<tr>
<td>6</td>
<td>Topic variety</td>
<td>21</td>
<td>Pricier training cost for more assistant trainer</td>
</tr>
<tr>
<td>7</td>
<td>Beginner-Intermediate-Expert modul</td>
<td>22</td>
<td>Different price for different topic</td>
</tr>
<tr>
<td>8</td>
<td>Parallel class and topics</td>
<td>23</td>
<td>Online registration</td>
</tr>
<tr>
<td>9</td>
<td>Official online forum</td>
<td>24</td>
<td>Online payment</td>
</tr>
<tr>
<td>10</td>
<td>Hardcopy &amp; softcopy modul</td>
<td>25</td>
<td>Cheaper bundled-course</td>
</tr>
<tr>
<td>11</td>
<td>Equipment sufficiently provided</td>
<td>26</td>
<td>Intermezzo session</td>
</tr>
</tbody>
</table>
After weighing the response, the result is as shown in figure 3. Not as predicted, this study shows that the non-formal product doesn’t have any Must-be attribute and it was dominated by more than 60% of Attractive attributes.

**Figure 3.** Attributes of ProCodeCG is plotted into four quadrant of Kano Model.

The other study (Garmaisa and Sisilia, 2014) with formal product shows that the attributes are spread on the four categories, including Must-be. This might suggest that the non-formal product is still not be seen as one that fills the basic needs of the users, but more as a complementary product at a certain level to the formal one.

Formal and non-formal product attributes in this study are different because they are acquired from different users. To make those attributes more comparable, we group them into a generic type. Attributes from both products can be split into two new groups: attributes that relate to Content/Curriculum and ones that relate to Learning Support. We define the Content/Curriculum related group as a group of any attributes that are directly attached the content of the course, such as topic variances, exam and project that complement the course, or the teaching method used by the instructor. The other group is for any attributes that is not directly related to the curriculum/content, such as: how do the course be delivered, the interaction between trainer/lecturer and student, or even course registration-related attributes.

Regarding the product content, most of the Formal product contain Must-be and Indifferent attributes, while Non-formal product mostly perceived as delighter
product. Both products have up-to-date course material attributes, but only in Non-formal product, this attribute can affect user satisfaction. The non-formal product is dominated by Attractive attributes, hence the non-functionality of any attributes (except A3) won’t cause dissatisfaction on its current users. To maintain user satisfaction, startups should keep their curriculum up-to-date with content from the latest technology available.

Table 2. Content/Curriculum related attributes comparison between formal and non-formal education product.

<table>
<thead>
<tr>
<th>Formal Product (Garmaisa &amp; Sisilia, 2014)</th>
<th>Non-formal Product (ProCodeCG)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up-to-date material and it’s conformity to modern scientific findings (M)</td>
<td>Up-to-date Curriculum (A3) (O)</td>
</tr>
<tr>
<td>Having a certain curriculum (for professor) (M)</td>
<td>Topic variety (A6) (A)</td>
</tr>
<tr>
<td>Coordination between content of exam questions and the emphasis of teacher on the taught subjects (M)</td>
<td>Daily Small Challenge (A1) (A)</td>
</tr>
<tr>
<td>Suitable and up-to-date mental measurement tools in the Entrepreneurship lab or business simulation (A)</td>
<td>Capstone Project (A2) (A)</td>
</tr>
<tr>
<td>Acquisition of IT skills by the students (O)</td>
<td>Modul content by-request (A4) (A)</td>
</tr>
<tr>
<td>Existence of more elective courses during the program (I)</td>
<td>Ready-to-work curriculum (A5) (A)</td>
</tr>
<tr>
<td>Allocation of a portion of exam score to practical activities such as research studies, etc (I)</td>
<td>Code camp (A19) (A)</td>
</tr>
<tr>
<td>Observing consistency for the content of the courses (I)</td>
<td>Online class (A27) (A)</td>
</tr>
<tr>
<td></td>
<td>Online private class (A28) (A)</td>
</tr>
<tr>
<td></td>
<td>Intermezzo session (A26) (A)</td>
</tr>
<tr>
<td></td>
<td>Parallel class and topics (A8) (A)</td>
</tr>
</tbody>
</table>

Source: Authors’ data analysis

The satisfaction attributes dominate the Learning Support attributes group. Both Formal and Non-formal product could drive user satisfaction through attributes improvement of Learning Support attributes. By having a significant number of One-dimensional attributes in this group (58% in the formal product and 27% in
the non-formal product), lack of functionality in these attributes may bring dissatisfaction to their users.

**Table 3.** Learning Support related attributes comparison between formal and non-formal education product.

<table>
<thead>
<tr>
<th>Formal Product (Garmaisa &amp; Sisilia, 2014)</th>
<th>Non-formal Product (ProCodeCG)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appropriate physical environment for the classroom (O)</td>
<td>Comfortable and air conditioned room (A16) (A)</td>
</tr>
<tr>
<td>Friendly communication between professors and students (O)</td>
<td>Projector/Wall Screen (A15) (O)</td>
</tr>
<tr>
<td>Accepting criticisms (for professors) (O)</td>
<td>Internet broadband access (A13) (O)</td>
</tr>
<tr>
<td>Encouraging the students to think (O)</td>
<td>Training location distance (A17) (A)</td>
</tr>
<tr>
<td>Acquisition of required knowledge and skills about the principles and fundamentals of entrepreneurship as a science (O)</td>
<td>Fixed place (A20) (A)</td>
</tr>
<tr>
<td>Providing feedback to increase student’s competence (O)</td>
<td>Hardcopy &amp; softcopy modul (A10) (O)</td>
</tr>
<tr>
<td>Encouraging the students to be involved in the teaching-learning process (O)</td>
<td>Beginner-Intermediate-Expert modul (A7) (A)</td>
</tr>
<tr>
<td>Enabling students to teach the course of Entrepreneurship (A)</td>
<td>Official online forum (A9) (O)</td>
</tr>
<tr>
<td>Enabling students to properly use educational tools in learning entrepreneurship course (A)</td>
<td>Linear expertise of instructor (A12) (O)</td>
</tr>
<tr>
<td>Appropriate area of classroom for the number of students (physical area per capita) (M)</td>
<td>Fixed schedule (A18) (A)</td>
</tr>
<tr>
<td>Presence of incentives and facilities to improve educational and research activities of students (I)</td>
<td>Online registration (A23) (A)</td>
</tr>
<tr>
<td>Observing the order and discipline in entering and leaving the classroom (by the professor) (I)</td>
<td>Online payment (A24) (A)</td>
</tr>
<tr>
<td></td>
<td>Cheaper bundled-course (A25) (A)</td>
</tr>
<tr>
<td></td>
<td>Sufficient assistant trainer (A29) (A)</td>
</tr>
<tr>
<td></td>
<td>Equipment sufficiently provided (A11) (I)</td>
</tr>
<tr>
<td></td>
<td>Snack (A14) (I)</td>
</tr>
<tr>
<td></td>
<td>Pricier training cost for more assistant trainer (A21) (I)</td>
</tr>
</tbody>
</table>
For higher education institution, according to Kano model, competitive advantage would come from attributes that are related to learning support, while competitive advantage for a startup would come from both content/curriculum and learning support attributes.

Regarding product development, Kano Model suggest that startups should avoid improvement in the indifferent type of attributes, such as A11, A14, A21, and A22. Instead, startups should focus on improving One-dimensional attributes (A3, A9, A10, A12, A13, and A15), as poor functionality of these attributes would lead the dissatisfaction of its users.

User category based on technology adoption framework may explain the lack of must-be attribute on a non-formal product. Education startup stays in the competition by keep providing course about the latest technology, such as mobile app programming skill or blockchain programming. Our study shows that current non-formal product users mostly come from early market consumer category: innovators and early adopter. According to Moore (2014), these early market consumers might interest to purchase new product only to explore it. Sometimes they may find the usage of the product for other purposes that wasn’t designed for that product (Rory, C., 2011). They mostly are not price-sensitive, as shown in attribute A21 and A22 that are categorised as an indifferent attribute (figure 4).

![Figure 4. ProCodeCG user category](image.png)
4. CONCLUSION AND RECOMMENDATION

Our study shows the differences in managing formal product and non-formal product in the education industry. At the moment formal education institution and non-formal education startup are not in the same level/area of competition. They also have a different type of users. The formal product would have all the user category since it is legally obliged. However, the non-formal product users mostly come from early market user category.

Education startup like ProCodeCG may still be viewed as a complementary product provider at the moment. Nevertheless, ProCodeCG still has to find must-be attributes for their product to be able to penetrate a wider market. Its early market consumer will have an important part to diffuse the product to the mainstream market, and ProCodeCG needs to manage them properly (Rayna, T., et. al., 2009).

Our study shows the product comparison between one startup and one higher education institution. Further research is required to generalise the attributes of formal and non-formal education product.

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Abstract

This paper examines visitor opinion of global tourism destinations as a concern to developing tourism sector. In this substantially extended review, a deeper analysis of tourist attraction using text analytics is presented. It improves our understanding of tourist experience in global destinations to further become valuable insights for product development and improvement of service delivery. In this paper, global destinations become a study to find out a deeper knowledge of how visitors perceived through their experience. We use topic modeling to provide information on popular topics are mostly discussed of attraction in destinations and take them in general as one specific characteristic of each attraction, and sentiment analysis technique to evaluate sentiment perception on each global destination. The result shows that there are some points becoming tourist concern in perceiving an attraction. It concludes that opinion voice provides a key implication to assist tourism sector development according to tourist perspectives.

Keyword: Tourist experience, tourist attraction, sentiment analysis, topic modeling

1. INTRODUCTION

Destinations are the interesting point of the tourism product. The desire to visiting them becomes the main motivation of most trips (Horner and Swarbrooke,
2016). Therefore, destinations can be considered as the pull factor for tourists, including other factors such as attraction, facility, and hospitality (Mill and Morrison, 1985), and creating emotional attachment. Particularly, destinations can be a town, village, or a region within a country. We can choose them as part of our traveling destination or business trip. Extensively, there are destination categories according to geographical features: seaside, rural, and urban tourism (Davidson, 2009). Cho (2002) found that there are five elements influence tourism destination attractiveness (Lohmann and Netto, 2017): tourist attraction, amenities, accessibility, image, and price.

The tourist experience appears as one of the key quality dimensions for destination brands (Gilmore and Pine, 2002). Understanding the drivers of memorable tourist experiences provides valuable insights for product development and improvement of service delivery (Prebensen et al., 2018). The previous research (Mukherjee et al., 2018) found that the quality of service and the quality of experience perceived from destinations determined the quality of tourism aside from the quality of destination. We can find destination review in tourism websites easily, which are created directly by the visitors. This eases people who plan to travel to see some reviews and experience that can lead them to make better planning.

In this digital era, most reviews or experiences from visitors are left on social media through tourism websites or visitor’s social media account. In this case, text analytics becomes a proper method to analyze them. Text analytics derives information from text sources to get high-quality information usually used for a couple of purposes such as summarization, sentiment analysis, etc. The previous study also ever analyzed sentiment analysis to 213 respondents using questionnaire (Mukherjee et al., 2018). We use a different technique to analyze the data and determine text analytic as a proper technique in this research.

We use sentiment analysis as part of text analytics in this study to examine reviews of TripAdvisor users on popular global destinations. Sentiment analysis provides insights of visitors related to their feeling on different attributes of a destination, quality of the experience, and on perceived value (Gonzalez et al., 2016). The previous discussion on the use of the method is to examine and understand the experiences of travelers to Gallipoli (Cakar, 2018), the use of the method in hospitality context (Ma et al., 2018) and tourist destination image through eWOM (Gonzalez, 2016). This paper also adds to the discussion of popular topics using topic modeling. We use topic modeling in order to analyze popular topics in each attraction. Topic modeling is a statistical model to identify a hidden topic that occurs in a collection of text documents (Ko et al., 2018). It would be highly beneficial to include popular topics to create a better comprehension of how the destinations are perceived by tourists.

The characteristics of the destinations and the stakeholders play important roles in involving tourists in experience production (Karayilan and Cetin, 2016). This study aims to explore tourists’ experiences in each attraction of global destinations.
The global destinations are Sipadan Malaysia, Catbells Lakeland Walk England, Valley of The Moon Chile, Ishigaki Japan, Galapagos, Maldives, Ko Samui Thailand, and Angkor Wat Cambodia. This paper gives insights to the government to further develop and improve the tourism industry by analyzing tourist’s opinion of attraction in the global destination as benchmarking objects.

The theoretical contribution of this study suggested that sentiment analysis and topic modeling are useful in exploring and analyzing tourist experience of certain destinations where they provide insights to create a better marketing campaign that is implemented correctly.

2. LITERATURE REVIEW

Gunn (1988) conceptualized a tourist attraction and considering it as a product. She identified three zones in the spatial structure: natural or built, nodal or linear, permanent or temporary attractions. Various studies have acknowledged some factors enhance tourist attraction, for example; a study (Chuang et al., 2014) has been conducted to observe tourist night markets in Taiwan. It reveals that tourist attraction derives from the diversity of service content, affordable consumption, and more. Another study (Picard, 1990) also has observed cultural tourism in Bali as an attractive attraction for tourists.

User-generated content is used to describe any form of content that is created by users of the online system often made in social media websites such as tweets, digital images, discussion forums, and any other forms of media (Moens et al., 2014). Tourists usually post their experience in social media by sharing photos, videos, or comments in forum discussions. Review on social media is often used as a reference for their traveling plan. Therefore, this is beneficial for tourism managers to find out tourist’s perspective regarding the destinations through their review in social media.

In analyzing a lot of reviews with a large scale of data, some studies have been conducted using text mining. Those studies have been conducted using sentiment analysis to examine the opinion of destination image (Gonzalez et al., 2016) and dark tourism (Cakar, 2018). Sentiment analysis, also called opinion mining is used as an approach to determine opinion, sentiment, evaluation, and attitude toward entity such products, services, organizations, individuals, problems, events, topics and other attributes written in the text (Liu, 2015). Since 2002, research in sentiment analysis has been very active. Apart from the availability of a large amount of opinion data in social media, opinion and sentiment do have large various applications because simply opinion is central almost for all human activities (Liu, 2015).

The type of classification method used in this study is Naive Bayes Classifier (NBC). NBC is a text classification that figures out the probability of word occurrences in a document. Naive Bayes models are popular in machine learning applications, due to their simplicity in allowing each attribute to contribute towards the final decision equally and independently from the other attributes (Xhemali et
al., 2009). In addition, the use of topic modeling is to see the topics discussed in each tourism destination dataset.

Topic modeling is a statistical model used to identify the latent topics that occur in a collection of text documents (Ko et al., 2018). The intuition behind the LDA topic model is that words belonging to the same topic appear together in documents (Tazibt and Aoughlis, 2018). The prominent methods involved in topic modeling are Latent Semantic Analysis (LSA), Probabilistic Latent Semantic Analysis (pLSA), and Latent Dirichlet Allocation (LDA) (Rajasundari et al., 2016).

The method used for topic modeling is Latent Dirichlet Allocation (LDA). LDA helps to identify typical features from documents described by topic distribution and that each topic consists of words distribution (Ko et al., 2018). In this study, LDA-based topic modeling is applied to the online review data to identify attraction in the global destination which are discussed by TripAdvisor user. These topic attractions are then used as an insight to improve tourism destinations.

3. METHODOLOGY

The process steps in this study are presented in the following figure:

Figure 1. Research Workflow

The first step we do in this research is deciding the global tourism destinations that have various characteristics and provide interesting attractions. In addition, the characteristic and attraction references from magazine, news media, and any other sources become supporting sources to determine the destinations, and eventually we decide eight global tourism destination as benchmarking destinations. The data was obtained from the review column in TripAdvisor, which is the most visited tourism website in the world.

We collect the data based on UGC (User Generated Content) concept, which the data is derived from a media website containing review that was created by the user. The content was posted by TripAdvisor user in the review column. The
review contains comments regarding user experience from the tourism destination attraction. Using UGC is greatly beneficial because the researcher can gain information and knowledge through a collaborative opinion content (Moens et al., 2014). The review is collected in the column section with the appearance as follows:

Figure 2. TripAdvisor Review Column

The data was derived from the process of scrapping or web crawling in the review column. The research object of this research is attractions in eight global tourism destinations we consider to having some different characteristics and good performance according to some sources. The review is conducted based on TripAdvisor top things to do in each tourism destination with English review only. Then, the characteristic is perceived through attractions in each destination.

Before going to Sentiment Analysis step, the data are filtered and choose only the full review, delete an inappropriate review, and change them to the proper format. The first step to train the classifier is to split the data into data training and data testing, which will allow one to check whether the model works on the tested data (or instead overfits the data training). Based on the study (Ting and Tsang, 2011) the data is used for the establishment of training data as much as 30% and 70% as test data. Thus, this study use data for the establishment around 70% for training data and 30% for testing data. At the testing step, the categorical value of a document is determined based on the terms that appear in the classified document.

The dimensions used in this research are positive, negative, and neutral. This aims to know the tendency perspective of the visitors toward the object. The positive category represents the review with the tendency of feeling happy and satisfied, while negative categorized the review for the unsatisfied feeling of place or service in destinations. Then neutral is categorized to the review that is not suitable to positive or negative category and does not have any tendency user’s expression. Each category has different identities as written in the following table:
Table 1. Review Labelling Example

<table>
<thead>
<tr>
<th>Text</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>I saw a beautiful ray over there snorkeling with plenty of white dots on her back as well as multiple beautiful fish! It's free and the snorkeling is amazing!</td>
<td>Positive</td>
</tr>
<tr>
<td>While it was &quot;OK&quot;, this was the most disappointing of all our snorkels in the Galapagos. There was a very strong current and a lot of the water was blurry due to cold/heat inversions.</td>
<td>Negative</td>
</tr>
<tr>
<td>Either walk or pay $10.50 each way to take a boat. If you take the boat, buy the ticket around 8:45am at the kiosk near the pier, and then you'll leave around 9 am. The same boat guy will pick you up around 1 pm.</td>
<td>Neutral</td>
</tr>
</tbody>
</table>

The next step after data labeling, the data is input to the machine to analyze the sentiment of the review. In the machine, the data then enter the preprocessing step to turn them into proper data. Preprocessing involves a series of techniques, which should improve the next phases of elaboration, in order to achieve better performances (Angiani et al., 2016). Data preprocessing is an important part of data mining especially in text mining and text classification. Preprocessing is needed for preparing the data is in good quality and to minimize the unreliable data that can affect the result. It also ensures that the result achieved is valuable. The preprocessing task is to clean up, and data restructuring so that data can be analyzed in the next process in text mining. Data preprocessing is performed as follows:
This step goes through three processes namely tokenization, filtering, and stemming. Tokenization is the process of replacing sensitive data with essential information called token. Stopwords eliminate the unnecessary words that often appear in a text document. It is important to avoid having these words within the classifier model because they can lead to a less accurate classification. Then, stemming is the process to return a word into its original word by eliminating the affixes (Angiani et al., 2016).

This model is evaluated using a predictive classification table or known as Confusion Matrix (Xhemali et al., 2009).

<table>
<thead>
<tr>
<th>Predicted</th>
<th>Irrelevant</th>
<th>Relevant</th>
</tr>
</thead>
<tbody>
<tr>
<td>True</td>
<td>TN (True Negative)</td>
<td>FP (False Positive)</td>
</tr>
<tr>
<td>False</td>
<td>FN (False Negative)</td>
<td>TP (True Positive)</td>
</tr>
</tbody>
</table>

TP (True Positives): Appropriate classification result, class classification is predicted positive by positive machine.
TN (True Negative): Appropriate classification result, predictable class classification is predicted negative by negative machine.
FP (False Positive): Inappropriate classification result, class classification is predicted negative by positive machine.
FN (False Negative): Inappropriate classification result. Class classification is predicted positive by negative machine.

Mathematical equations to describe the table above are as follow:
Recall is the success rate of a system in rediscovering information.

\[
\text{Recall} = \frac{TP}{TP + FN}
\]  

(1)

Precision is the ratio of measurement on how appropriate the method is on textual classification in predicting text.

\[
\text{Precision} = \frac{TP}{TP + FP}
\]  

(2)

Accuracy is the level of correct prediction between predictive values and actual values.

\[
\text{Accuracy} = \frac{TP + TN}{TP + FP + TN + FN}
\]  

(3)

This study is using Latent Dirichlet Analysis as topic modeling method. It works to described topic distribution as the process is presented in the following figure:

Figure 4. LDA Topic Modeling Concept (Blei and Lafferty, 2009)

The figure above explains the concept of LDA Topic Modeling, where \( \alpha \) and \( \beta \) are Dirichlet priors on each topic document distribution and topic word distribution, severally, \( \theta_i \) is the distribution over topics for document \( i \), \( \phi_k \) is the distribution over words for topic \( k \), \( z_{ij} \) is the topic for the \( j \)th word in document \( i \), and \( w_{ij} \) is the specific word (Ko et al., 2018).

4. RESULT AND DISCUSSION

Sentiment Analysis Results

The sentiment analysis result is presented in the following tables. The table below shows the sentiment percentage for each category:
<table>
<thead>
<tr>
<th>Tourism Object</th>
<th>Positive</th>
<th>Negative</th>
<th>Neutral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ko Samui</td>
<td>78%</td>
<td>15%</td>
<td>7%</td>
</tr>
<tr>
<td>Maldives</td>
<td>68%</td>
<td>13%</td>
<td>19%</td>
</tr>
<tr>
<td>Ishigaki</td>
<td>79%</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td>Angkor Wat</td>
<td>78%</td>
<td>5%</td>
<td>17%</td>
</tr>
<tr>
<td>Galapagos</td>
<td>85%</td>
<td>5%</td>
<td>10%</td>
</tr>
<tr>
<td>Valley of The Moon</td>
<td>56%</td>
<td>32%</td>
<td>12%</td>
</tr>
<tr>
<td>Sipadan</td>
<td>63%</td>
<td>21%</td>
<td>16%</td>
</tr>
<tr>
<td>Catbells Lakeland Walk</td>
<td>74%</td>
<td>9%</td>
<td>17%</td>
</tr>
</tbody>
</table>

**Table 3. Sentiment Analysis Result**

**Ko Samui, Thailand**

Ko Samui has 78% positive sentiment review, 15% negative sentiment review, and 7% neutral review. The positive review is mostly talking about the beach which has a convenient atmosphere and beautiful view, while the negative review mostly about the comment on the beach which is dirty and too crowded. The neutral review is mostly explaining about the destination or available facility.

**Maldives**

The sentiment result of Maldives shows that Maldives has a 68% positive sentiment review, 13% negative sentiment review, and 19% of neutral review. The positive review of Maldives is talking about visitor’s admiration of the beauty of the Maldives and the very pleasant activity. The negative sentiment usually talks about the comparison between the beach. Maldives has some beaches options so then visitors usually compared one beach to another. The neutral review is mostly about a review from a visitor who explains the place or just tells the place they visit. The positive reviews support the statement that Maldives is one of 100 the
best beaches in the world according to CNN travel news which most of the reviews said that Maldives is such an amazing beach with a beautiful view.

**Ishigaki**

The sentiment result of Ishigaki shows that Ishigaki has a 79% positive sentiment review, 11% negative sentiment review, and 10% of neutral review. The positive review is usually about the view, activity, and service delivery, which are good and satisfying. For this, positive review represents the rank result by TripAdvisor for the top 10 destinations on the rise and place Ishigaki in the first position. The neutral review usually talks about the description of each place, and the negative review usually talks about the cleanliness and weather.

**Angkor Wat**

According to the result, Angkor Wat has 78% positive sentiment review, 5% negative sentiment review, and 17% of neutral review. The positive reviews of Angkor Wat usually talk about the greatness of Angkor Wat, which has a huge size and a beautiful sunrise. This positive sentiment review conforms Angkor Wat as one of the most important archeological sites in Southeast Asia as mentioned by UNESCO. The negative review mostly happens because Angkor Wat is very crowd and the visitors cannot enjoy the situation. Then, the neutral review is usually about the explanation of temples, and some people said that the sunrise view is average.

**Galapagos**

The result of Galapagos shows that Galapagos has 85% positive sentiment review, 5% negative sentiment review, and 10% of neutral review. The positive review is mostly talking about the beautiful view in Galapagos and interesting animals that are able to have interaction with visitors in most places. Galapagos is included in UNESCO world heritage lists. These positive reviews reinforce the existence of Galapagos as one of the heritages' lists that have received good reviews from the visitors. The negative review is usually about the view of a beach that is not as beautiful as other beaches and sometimes the water is a blur. The neutral review is mostly about the explanation of Galapagos Island or some available facilities.

**Valley of the Moon**

Valley of The Moon has 56% positive sentiment review, 32% negative sentiment review, and 12% of neutral review. The positive review is about the uniqueness of Valley of The Moon, which has the same characteristic as the moon. Valley of The Moon has a lot of negative reviews; it is mostly about the disappointment of the visitor because the trip is very short, which takes only 30 minutes to one hour and becomes boring. Lastly, the neutral review is mostly about the explanation of the rock formation.
Sipadan, Malaysia

Sipadan has 63% positive sentiment review, 21% negative sentiment review, and 16% neutral review. The positive review is mostly about customer satisfaction of the service and the underwater natural beauty. Then, negative review in Sipadan is talking about customer disappointment of diving limitation quota. And the neutral review is usually about diving promo advertisement. Positive review supports the statement as mentioned in scuba travel website that Sipadan is one of the best diving spots in the world.

Catbells Lakeland Walk

The sentiment result of Catbells Lakeland Walk has 74% positive sentiment review, 9% negative sentiment review, and 17% of neutral review. The positive review is mostly talking about the beautiful view that is perceived from the top of the hill and its beautiful lake as well. Countryfile, one of the magazines in British, has posted an article stated that Catbells Lakeland Walk is universally loved and does have a good panoramic view. These positive reviews support the statements in Countrylife that Catbells Lakeland Walk is lovely. The negative reviews are mostly talking about the track of the road which is steep and does have slippery rocks. While the neutral review is mostly talking about visitor suggestion to be careful while being on the trip.

The model accuracy of sentiment analysis is presented in the table below:

<table>
<thead>
<tr>
<th>Tourism Object</th>
<th>Accuracy</th>
<th>Precision</th>
<th>Recall</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ko Samui</td>
<td>81.81%</td>
<td>67.2%</td>
<td>81.01%</td>
</tr>
<tr>
<td>Maldives</td>
<td>80.63%</td>
<td>74.91%</td>
<td>76.57%</td>
</tr>
<tr>
<td>Ishigaki</td>
<td>88.36%</td>
<td>85.53%</td>
<td>82.26%</td>
</tr>
<tr>
<td>Angkor Wat</td>
<td>83.52%</td>
<td>76.84%</td>
<td>78.43%</td>
</tr>
<tr>
<td>Galapagos</td>
<td>74.6%</td>
<td>53.5%</td>
<td>74.04%</td>
</tr>
<tr>
<td>Valley of The Moon</td>
<td>83.86%</td>
<td>77.05%</td>
<td>81.6%</td>
</tr>
<tr>
<td>Sipadan Island</td>
<td>88.97%</td>
<td>90.2%</td>
<td>84.4%</td>
</tr>
<tr>
<td>Catbells Lakeland Walk</td>
<td>85.04%</td>
<td>79.22%</td>
<td>80/62%</td>
</tr>
</tbody>
</table>

Table 4 above shows the performance of the sentiment classification using Naïve Bayes Classifier (NBC). It shows that they have a positive result evident by the accuracy value mostly higher than 80%. The performance matrix related to each global destination is mapped to understand the performance of machine learning.

Topic Modeling Results

The following figures below are the first topic modeling results of the attraction in each destination. The widths of the gray bars represent the corpus-wide
frequencies of each term, and the widths of the red bars represent the topic-specific frequencies of each term (Sievert and Shirley, 2014).

Figure 5. Angkor Wat Topic

The figure above represents the topic in the dataset which is talking about Angkor Wat temple located in Siem Reap Cambodia that is very amazing. Visitors feel amazed at the greatness of this temple, because it has an amazing history behind its greatness. In Angkor Wat, there is usually a tour guide who accompanies visitors on their trip. The tour guide tells about the history of Angkor Wat and accompanies them to see around the temple. In these reviews, most visitors recommend people to visit Angkor Wat when they are in Cambodia.

Figure 6. Beach Ishigaki Topic

The picture above shows the most frequently discussed in the result of the topic result for Beach in Ishigaki. The topic is talking about the activities at the beach such as snorkeling and swimming. The beach in Ishigaki also has coral and clean water, and for some spots are shallow. This topic is mostly talking about characteristic and activity on the beach. According to the culture trip website, people should visit Ishigaki due to the reason is Ishigaki as a home for incomparable beaches.
There are some attractions provided in Ko Samui Thailand such as an attraction at beach and nature & parks. The visualization above presents the topic of nature and park. The most popular topic discussed as presented in the figure above is talking about Mu Koh Ang Thong National Marine Park, which is an island surrounded by water in Ko Samui area. The visitors are talking about a boat trip and water sports such as kayaking, speed boat, and snorkeling. They usually do their trip here to enjoy the beautiful view and do some water sports.

The topic in the dataset as presented in figure 8 is talking about visitors who have such a wonderful day with a great experience when diving in Sipadan. One of the agencies that provide diving is Samporna Scuba Diving, which is the popular dive agency discussed in this topic. It provides a course for the customer before diving. The customers perceive the staffs, and instructors are friendly and fun. The agency usually has an open trip and shares it through the website for anyone who wants to join. In addition, the visitors are also talking about their diving experiences in the sea where they can see barracuda, turtle, and any other marine animal.
The topic for Beach in Maldives is presented in Figure 9 above. It is talking about an artificial beach in Hulhumale Island, which is located near the airport. This place is crowded because people usually spend time here before going to the airport or just stay overnight before leaving. There are hotels and restaurants as a facility for visitors. The tourists use the ferry to visit this place, and it also accommodates them to the airport. Some tourists sometimes compared to the beach in Male city because this beach is small, and they visit here because the location is near the ferry terminal.

Figure 10 presents the topic for Nature and Wildlife Area in Galapagos. This topic talks about tourist activity and animal. Visitors can see pelicans, sharks, turtles, sea lions, penguins, blue-footed booby, and more. Having interaction with the animals becomes the most carried out activity here. There is also a fish market downtown the street with local animal interaction getting fed by fishermen. Several activity people often do here is snorkeling and having animal interaction.
Figure 11. Catbells Lakeland Walk Topic

Figure 11 above presents the topic for Catbells Lakeland Walk. This topic shows how people access the place and how they enjoy it. They walk and climb to reach the top with seeing around the beautiful view. They took a boat from Keswick and end at The Catbells then continue by walking. The track to reach the top is steep and people should take care of their way. Although with this condition, they keep walking to the top and enjoy the view around them.

Figure 12. Valley of The Moon Topic

The topic of Valley of The Moon is presented in Figure 12 above. This topic is specifically talking about the landscape and the location. Tourists usually walk around this place approximately only for an hour. It is located near the city, and people often visit here as a short trip by using a taxi. For some tourists, this place is interesting, because the landscape is similar to the moon, so unique and rare to meet in other places, but some of them think it is just usual. However, some of them feel bored with the trip because it only takes minutes and there is nothing to do there besides taking a photo.
Tourism Attraction Characteristics

There are five tourism attraction characteristics commonly visited in global tourism destination reviewed by tourists as explained in these following figures:

**Beach**

There are some topics people mostly talk about the beach. They are beach characteristic, activity on the beach, supporting facility, situation, and expression. The common topic of the beach is explained in the following figure:

![Figure 13. Beach Attraction Topic](image)

Figure 13 above presents the common topic tourists usually talk about the beach. Tourists often talk about characteristic and activity on the beach. They concern with the sand, water, rock, waves, etc. Most tourists like a beach that has white sand and clean water. In special case such as Galapagos, people concern for the animal that can have an interaction with them. Moreover, People are also concerned about available activities at the beach such as snorkeling, swimming, or just walk along the beach.

**Watersport**

Water sport such as diving and snorkeling becomes activities that people usually do especially at the beach. The common topic of the beach is explained in the following figure:
The topic of water sport is presented in figure 14. The most topics discussed are about service and staff attitudes. Tourists are concerned about staffs and instructors. They perceive staffs and instructors to have professional, friendliness, and helpfulness attitude. These attitudes become the main concerns regarding the tourists’ perspective. Diving becomes one of the most topics discussed regarding watersport activity. Moreover, visitors also talk about services such as equipment, accommodation, and lunch that are provided by the agency, and the communication built between staff and visitors. Most of the tourists are English native speaker, so they very appreciate the staffs or instructors who have good English communication.

Nature, Parks, and Wildlife Area

Nature and parks usually exist in every destination. It presents a place that can be enjoyed either at the center of the city or not. Wildlife area is unique and only exists in a certain area, and it is an inseparable attraction with nature and parks. There are some topics people mostly talk about nature, parks, and wildlife area. The common topic is explained in the following figure below:
Figure 15 above presents the common topic of nature, parks, and wildlife area. This topic mostly talks about tourist expression, place characteristic, and available activity. Visitors are often express their feeling regarding the thing they see or feel. The common expressions are great, lovely, stunning, beautiful, etc. They mostly concern with the characteristic of the place such as the view, lake, weather, road, and many more. Moreover, people also talk about how to do the activities there, whether by walking, climbing, hiking or in another way.

**Point of Interest and Landmarks**

There are some topics people mostly talk about Point of Interest and Landmarks. They are tourist expression, unique place, landmark, and parking area. The common topic of point of interest and landmarks is explained in the following figure below:

![Figure 16. Point of Interest and Landmarks Topic](image)

The common topic of point of interest and landmarks is presented in figure 16. This topic talks about tourist expression and unique place. Visitors mostly expressed their feeling regarding their experience whether the attraction is impressive or not. They also interest in a unique place such as a monkey village where tourists can have an interaction with a monkey. Besides that, the building of the landmarks becomes the main discussed topic for tourists, either concern with its uniqueness or its history.

**Sacred and Religious Sites**

Sacred and religious sites are interesting to visit either as its main building or visited as an additional destination. There are some topics people mostly talk about sacred and religious sites. They are a tour guide, activity, the architecture of the building, situation, and history. The common topic of sacred and religious sites is explained in the following figure below:
The common topic of sacred and religious sites is presented in figure 17. This common topic mostly talks about tour guide and activity. Visitors felt being helped by a tour guide who always accompanies them to tell the history of the sites, lead the way, or just help them to take a photo. This indicates that the role of the tour guide is important according to visitors' perspective. Visitors are also concerned with some activities they can do in the sacred area. In this topic, another activity besides walking around the site is watching the sunrise as another interesting activity for a tourist to visit.

5. CONCLUSION AND RECOMMENDATION

The author has successfully and properly analyzed the unstructured data from the review of global tourism destination TripAdvisor. Naïve Bayes method is suitable for sentiment analysis as well as the LDA method that has capability extracting topic discussed. Based on sentiment analysis and topic modeling result of attractions in each global tourism destination, it shows that each of them has a dominant positive sentiment with the value higher than 50%. Galapagos has the biggest positive sentiment value with 85%, then followed by Ishigaki 79%, Ko Samui 78%, Angkor Wat 78%, Catbells Lakeland Walk 74%, Maldives 68%, Sipadan 63% and Valley of The Moon with the smallest positive sentiment value with 56%. This result indicates that most of them have set good tourism for the visitor’s experience. It can be used as a standard value for tourism destination in another country with the same characteristic.

Topic modeling has successfully grouped popular topics based on attractions in each global destination. The result delivers information about popular topics that are frequently discussed by TripAdvisor users toward the attractions. The discussions are different among destinations. However, for destinations with the same characteristic most likely have the same topic discussion. The most topics discussed are destination characteristic, services, and available activities. These topics of attractions could be used as insights or source of information to develop or evaluate tourism destination and tourist experience in another country, such as Indonesia.
The tourism attraction characteristic results represent from each attraction show that there are some topics mostly discussed by visitors in each attraction. They are:

1. Beach: Beach characteristic, beach activity, facility, beach situation, and tourist expression.
2. Watersport: Service, staff attitude, diving experience, tourist gratitude, accommodation, booking system, and price.
4. Point of Interest and Landmarks: Tourist expression, unique place, landmark, parking area.
5. Sacred and Religious Sites: Tour guide, activity, the architecture of the building, situation, and history of the sites.

REFERENCES


The Links from Career Congruence, Commitment to Parents' Goal, and Goal Clarity to Career Aspirations and Distress in Students with Entrepreneurship Goal

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Abstract

Parental and individual variables often present as antecedent variables that have potentials to influence individual career aspirations and distress. This study aimed to investigate the links from congruence with parents regarding career matters, commitment to parents' goal, and goal clarity to career aspirations and distress of students with entrepreneurship goals. We collected data from 165 freshmen from a university in Semarang, Indonesia, M age = 18.44 years, SD age = .63, 60% female, 81.8% from Economics and Business Department, and 18.2% from Psychology Department. All of them have career aspirations to become entrepreneur and 35% of their parents have the same expectations for them. We used measures of adolescent-parent career congruence, commitment to parents' goal, goal clarity, career aspirations, and career distress. Structural equation modelling demonstrated that adolescent-parent career congruence, commitment to parents' goal, and goal clarity significantly predicted career distress, whereas only goal clarity served as a significant predictor for career aspirations. Our results highlight the importance of goal clarity in determining levels of career aspirations, the roles of adolescent-parent career congruence and goal clarity in reducing career distress, and the role of commitment to parents’ goal as an antecedent of elevated career distress. The recommendations of this research findings are discussed.

Keywords: adolescents, career aspirations, career congruence, career distress, goal clarity

1. INTRODUCTION

Promoting entrepreneurship may be important for the success of today's societies, which face huge economic and social challenges (Audretsch, 2007). Recently, policy makers
underlined that this promotion, in general, should start early in life and that public measures should target the education of “the next wave of entrepreneurs” by fostering young people's early entrepreneurial competence (e.g., basic business knowledge or leadership) (World Economic Forum, 2009). However, although such activities seem to partly follow a life span developmental perspective (Baltes, Lindenberger, & Staudinger, 2006), entrepreneurship research to date has rarely addressed the dynamics of those who have entrepreneurial career aspirations.

Career aspirations are important to understand, as they are key drivers in the career decision-making process, and are causal predictors of education and training-related decisions (Looker & McNutt, 1989). Career aspirations also serve as motivators for future job selection and career success (Schoon & Parsons, 2002). From a theoretical perspective, when there is a failure to negotiate normative, career developmental tasks, career distress is more likely to happen (Havighurst, 1972; Kerpelman, Pittman, & Lamke, 1997), and in turn, suppresses other career development processes, such as exploration and career decision making (Skorikov, 2007). Career distress is specific to the career domain. It can be differentiated from distress relating to other specific domains (e.g., work, family) and to general or global distress, even though there is overlap among these constructs (Magee & St-Arnaud, 2012). It includes a range of negative feelings, such as helplessness, depression, stress, lack of purpose, anxiety, blame, and despair, and can be very debilitating (Larson et al., 1994).

Career literature has identified both the person and family-related contextual antecedents as antecedents of career aspirations. For example, Sawitri and Creed (2017) found that adolescent-parent career congruence and level of collectivism, together with career decision-making self-efficacy were significant predictors of career aspirations. However, their study only includes participants with a variety of career goals. Wang and Heppner’s (2002) examined Taiwanese university students, and found that students who were perceiving themselves as failing to live up to parental expectations in the areas of personal maturity, academic achievement, and dating concern, rather than simply perceiving parental expectations in these areas, were more likely to experience psychological distress. Therefore, there is a need to investigate both person and parental contextual variables when predicting career distress. However, their study also only includes participants with a variety of career goals. Overall, little is known about the dynamics of career aspirations and distress in students who have aspirations to become an entrepreneur.

The objectives of this study are to examine the links from adolescent-parent career congruence, commitment to parents’ goal, and individual goal clarity to career aspirations and distress in students with entrepreneurship goal.

2. LITERATURE REVIEW

Career goals or aspirations are considered to be an expression of the individual's ideal career goals and are differentiated from occupational “expectations,” which are considered to be an expression of the individual's realistic or likely career goals (Rojewski, 2005). Although career aspirations are often not eventually realized (Reynolds, Stewart, MacDonald, & Sischo, 2006), previous studies suggested that young people with high aspirations have a wider opportunity of entering high-status occupations (Schoon & Parsons, 2002), as they are more likely to pursue relevant education, training, and experiences necessary to enter high-status occupations, when compared with their low-aspirations counterparts (Rojewski, 1997).

In the twenty-first century, the active exploration of career goals is an important task that prepares students for successful school, work, and social life (Porfeli, 2008; Zikic & Hall, 2009). Previous studies indicated that students who have clear and purposeful career-related
goals are more likely to develop a stronger interest in their chosen areas of study and have more competence in making rational career-related decisions (Beal & Crockett, 2010). The ability to crystallise career goals, even tentatively, forms an essential condition of career readiness and later success (Hirschi, Niles, & Akos, 2011). Goal setting (i.e., formulation of aspirations) in adolescence is a crucial development task in career preparation and vocational identity development (Erikson, 1968). Career distress is specific to the career domain. It can be differentiated from distress relating to other specific domains (e.g., work, family) and to general or global distress, even though there is overlap among these constructs (Magee & St-Arnaud, 2012). It includes a range of negative feelings, such as helplessness, depression, stress, lack of purpose, anxiety, blame, and despair, and can be very debilitating (Larson et al., 1994).

Previous studies demonstrated that career goal clarity was associated positively with proactive engagement and confidence in future outcomes in secondary school students in Singapore (Chan, 2017). Individual goal clarity was also found to moderate the relationship between discrepancies between individual-set and parent-set career goals and individual and parent career distress in Indonesian undergraduate students. Those who experience more discrepancies are more likely to feel higher distress. However, the distress is higher for those who do not have clear career goals, and lower for those who have clear career goals (Sawitri, Perdhana, & Suryadi, 2019).

As the ability to clarify one’s own goal is an important variable in predicting individual and parent career distress, parent-related variables are also important contextual variables to examine. For example, previous studies demonstrated those who have higher level of adolescent-parent career congruence are more likely to have higher level of career decision-making self-efficacy, outcome expectations, career aspirations, and are more likely to engage in more career exploration activities and planning (Sawitri & Creed, 2017; Sawitri et al., 2014; Sawitri et al., 2015). Adolescent-parent career congruence is the degree to which the adolescents perceive parents as fulfilling career exploration, planning, and goal-setting needs, and the degree to which they perceive parents to be satisfied, proud, happy, or agreeable with their career-related progress; and the level to which the adolescents perceive that their parents have the same or corresponding ideas regarding career interests, values, plans, and aspirations (Sawitri et al., 2013). Those with higher degree of career congruence with parents were also found to have greater level of well-being (Sawitri et al.).

Further, previous studies demonstrated that those who experienced greater discrepancies between their own and their parents’ career goals reported lower career aspirations and higher career distress. As discrepancies increased, career aspirations reduced for high and low parent goal importance groups, but reduced more markedly for the high parent goal importance group. The positive association between discrepancies and career distress were stronger when individual hold higher levels of parent goal importance (Sawitri & Creed, 2018). However, no studies examined the direct relationship between individuals’ commitment to their parents’ goal and career distress.

No studies to date have examined the paths from two kinds of parental-related variables (i.e., adolescent-parent career congruence and commitment to parents’ goal) and person variable (i.e., individual goal clarity) to career distress in one model. Therefore, in this study, we examined the relationships between adolescent-parent career congruence, commitment to parents’ goal, and individual goal clarity, and career distress.

We tested the hypothesis using a sample of Indonesian undergraduate students, for whom adolescent-parent career congruence and commitment to parents’ goals are especially salient. Indonesia is ranked high on aspects of collectivism, and Indonesian adolescents rely heavily on parents and respect obedience (Hofstede & Hofstede, 2005). We hypothesized that
adolescent-parent career congruence, commitment to parents’ goal, and goal clarity would predict career aspirations and career distress. See Figure 1.

Figure 1. Hypothesised structural model

3. RESULTS AND DISCUSSION

Participants
Participants were 165 undergraduate students from a university in Semarang, Indonesia, \( M_{age} = 18.44 \) years, \( SD_{age} = .63 \). The sample was 60% female, and 81.8% come from Economics and Business Department, and 18.2% from Psychology Department, with \( M_{GPA} = 3.32 \) (out of 4). All of them have career aspirations to become an entrepreneur and 35% of their parents have the same expectations for them.

Materials
The survey packet contained measures adolescent-parent career congruence, commitment to parents’ goal, goal clarity, career aspirations, career distress, and demographic variables.

Adolescent-parent career congruence. We used the 12-item Adolescent-Parent Career Congruence Scale (Sawitri, Creed, & Zimmerman-Gembeck, 2013) to measure levels of perceived congruence between adolescents and parents. On a 6-point Likert-type scale (1 = strongly disagree and 6 = strongly agree), participants responded to items such as “The progress I have made towards my career goals makes my parents happy.” Higher scores reflect higher perceived career congruence with parents. Alpha was reported as .89 (Sawitri & Creed, 2017). Evidence of validity is supported by positive associations with collectivism, career decision-making self-efficacy, and career aspirations (Sawitri & Creed, 2017). Cronbach’s alpha for this study is .91.

Commitment to parents’ goal. We modified the 8-item Affective Commitment Scale (Allen & Meyer, 1990) to measure individuals’ commitment to their parents’ goal. Along a 6-point Likert-type scale (1 = strongly disagree and 6 = strongly agree), participants indicated their agreement to items such as “I would be very happy to spend the rest of my life in the career my parents want me to have.” Higher scores reflect higher commitment to parents’ goal. Cronbach’s alpha for this study is .96.

Goal clarity. To assess the degree to which individual clear about of his/her own goal, we specifically created 6-item Goal Clarity Scale. Sample item is: “I have clear career goals for
myself.” Previous study has showed good internal reliability (.84) and support for validity has shown by finding that goal clarity served as a moderator in the relationship between discrepancies and individual and parent career distresses (Sawitri, Perdhana, & Suryadi, 2018). Cronbach’s alpha for this study is .84.

Career aspirations. To assess levels of individual’s future career goals, we used the 8-item Career Aspirations Scale (Gray & O’Brien, 2007). Along a 6-point Likert-type scale (1 = strongly disagree and 6 = strongly agree), individuals indicated their agreement to items such as “When I am established in my career, I would like to train others.” Higher scores indicate stronger career aspirations. Alpha of .75 has been reported and a test-retest reliability demonstrated that total scores of the scale were stable over time (Gray & O’Brien, 2007). Gray and O’Brien (2007) demonstrated evidence for validity by identifying a two-factor solution from a principal components exploratory factor analysis performed via a direct oblimin rotation. Cronbach’s alpha for this study is .69.

Career distress. To measure levels of subjective career-related distress, we used the 9-item Career Distress Scale (Creed, et al., 2016). Sample item is: “I think that I should make a career decision as soon as possible, but I can’t and this makes me anxious.” A high internal reliability (.90) and support for validity by finding expected correlations with negative affect and positive affect have been demonstrated by previous study (Creed et al., 2016). Cronbach’s alpha for this study is .86.

- Translation Procedure
  We used Brislin’s (1986) forward and backward technique to translate the original English items into Bahasa Indonesia. First, two bilingual native Indonesian speakers translated the original items were into the target language, and two monolingual Indonesian speakers examined the readability of the translation. Then, two bilingual native Indonesian speakers blindly back-translated the items into English. Subsequently, the back-translated version and the original items were then compared to make sure the precision of meaning, and any inaccuracies were corrected. Finally, three Indonesian undergraduate students checked whether the final translated version was easy to understand.

- Data Collection Procedure
  The study was conducted with approval from the authors’ university ethics committee. Written permission was obtained from the participating university departments and all students in the study. The survey booklets which contained the scales and demographic questions were administered to students in class time at campus. The first and third authors administered the survey in class time. The data reported in this study constitute one part of a larger study, which is tracking the career development of undergraduate students in Indonesia (see Sawitri, Creed, & Perdhana, 2019).

- Statistical Analysis
  Data Management for Model Testing. We created item parcels to represent all scales (Landis, Beal, & Tesluck, 2000) to achieve a ratio of 10:1 for sample size to parameters estimated in the latent variable analysis (Kline, 2011). We used an item-to-construct balance procedure to create three parcels for each latent variable (Hau & Marsh, 2004). We specified a single-factor model for each scale using exploratory factor analysis, and formed parcels by assigning three items with the highest loadings to anchor the three parcels, adding the next three items to the parcels in an opposite order, and continuing until all items were distributed (Little, Cunningham, Shahar, & Widaman, 2002).

  Steps in Model Testing. We examined a measurement model to ensure that all latent variables (adolescent-parent career congruence, commitment to parents’ goal, goal clarity, career distress, and career aspirations) were represented appropriately by their parcels; and assessed the hypothesised structural model. All analyses were conducted in AMOS.
using maximum likelihood estimation. Model fit was assessed using $\chi^2$, Goodness of Fit (GFI), the Comparative Fit Index (CFI), Tucker-Lewis Index (TLI), and the Root Mean Square Error of Approximation (RMSEA). We have 165 participants and 15 observed variables, therefore, a significant $\chi^2$, CFI and TLI values better than .97, and RMSEA less than .08 indicate an acceptable fit. As $\chi^2$ is sensitive to sample size, $\chi^2/df$ with values less than 3 demonstrating a good fit (Hair, Black, Babin, & Anderson, 2010).

**Structural Model Testing**

The fit statistics for the measurement model were good, $\chi^2(77, N = 165) = 112.48, p < .001$, $\chi^2/df = 1.46$, CFI = .98, TLI = .97, RMSEA = .05. Factor loadings ranged from .61 to .95. Table 1 reports summary data, zero-order correlations, and correlations among the latent variables.

We did not include age, gender, or major in the structural model, as these variables had weak correlations with adolescent-parent career congruence, commitment to parents’ goal, goal clarity, career aspirations, and distress ($r = .01$ to .04). The structural model demonstrated good fit statistics, $\chi^2(78, N = 165) = 113.23, p < .001$, $\chi^2/df = 1.45$, CFI = .98, TLI = .97, RMSEA = .05. In this model, all paths to career distress were significant: adolescent-parent career congruence ($\beta = -.26, p < .01$), commitment to parents’ goal ($\beta = .18, p < .05$), and goal clarity ($\beta = -.57, p < .001$). However, only goal clarity ($\beta = .31, p < .01$) was significantly correlated with career aspirations, whereas adolescent-parent career congruence ($\beta = .14, p = .25$) and commitment to parents’ goal ($\beta = -.05, p = .70$) were not. See Figure 2.

![Figure 2](image-url)

**Figure 2.** Structural model with regression weights reported. Only significant paths are displayed to avoid visual clutter.

**Discussion**

This study tested the paths from adolescent-parent career congruence, commitment to parents’ goal, and goal clarity to career aspirations and distress. We found that goal clarity was found to correlated significantly and positively with career aspirations, whereas adolescent-parent career congruence and commitment to parents’ goal were not. Additionally, congruence with parents regarding career matters and individual goal clarity were found to be negative predictors of career distress, whereas commitment with parents’ goal was a positive predictor to career distress. The findings showed that those who have more clear goal are more likely to have higher career aspirations and lower career distress, whereas those who
demonstrate greater levels of congruence with parents regarding career matters and lower degree of commitment with parents’ goal are more likely to experience lower career distress. The positive association between goal clarity and career aspirations and the negative relationship between goal clarity and with career distress are consistent with goal setting theory (Locke & Latham, 1990), which demonstrates that clear and achievable goals enhance performance by directing individual action and motivating individuals to exert effort toward the performance goal.

Clarity of the individual’s own goal was found to be the only significant predictor of career aspirations, whereas both parental variables, i.e. adolescent-parent career congruence and commitment with parents’ goal were found to be not significant. The positive relationship between goal clarity and career aspirations are in line with Chan’s (2017) study which demonstrated the positive relationship between career goal clarity and confidence in future outcomes and proactive career engagement.

The non-significant relationships between the parental variables and career aspirations are in contrast with previous studies demonstrating the positive relationship between adolescent-parent career congruence and career aspirations (e.g., Sawitri et al., 2014; Sawitri & Creed, 2015). This is also different from previous finding, for example a study by Leong and Chou’s (1994) which demonstrated that for an individual from a collectivist cultural background, a career is an indicator of a compromise between parental expectations and individual preferences. It seems that individuals’ goal clarity to become an entrepreneur is more reliable in predicting their level of career aspirations.

In this study, goal clarity, adolescent-parent career congruence, and commitment to parents’ goal are found to be predictors of career distress. The negative correlation between adolescent-parent career congruence and career distress is in line with one of the assumptions of person-environment congruence, which states that individuals will be more satisfied when there is a fit between themselves and their environment (Swanson & Fouad, 1999). This finding is also consistent with studies conducted by Sawitri et al. (2013) that those who have higher level of congruence with their parents regarding career matters are more likely to be satisfied with their life. In this study, commitment to parents’ goal was found to positively predict career distress. This is consistent with previous studies which demonstrated that parent goal important worsen the effects of discrepancies between individual-set and parent-set career goals on career distress (Sawitri & Creed, 2018). Further, the negative relationship between goal clarity and career distress are in line with Freund, Weiss, and Wiese’s (2013) study, which demonstrated the longitudinal positive relationship between career goal clarity and life satisfaction.

When compared with both parental variables (i.e., adolescent-parent career congruence and commitment with parents’ goal), clarity of the individual’s own goal demonstrated the strongest effect on career distress. This result highlights the importance of individual goal clarity in predicting career distress over and above parental variables for students who have a career dream to become an entrepreneur. It might be because goals provide guidelines for decisions and behaviour and thereby provide orientation, which counteracts the insecurities and distress associated with career choice (Fraund et al., 2013).

4. CONCLUSION AND RECOMMENDATIONS

From the study, it can be concluded that: (a) goal clarity serves as a significant predictor for career aspirations and career distress. Goal clarity is associated positively with career aspirations, and negatively to career distress; (b) adolescent-parent career congruence and commitment to parents’ goal are significant predictors of career distress, but not career aspirations. Adolescent-parent career congruence is associated positively, whereas commitment to parents’ goal is associated negatively with career distress.
The findings suggest that to have high aspirations in entrepreneurship, students need to have a clear goal whether they want to become an entrepreneur or not. In other words, students should be aware that clarity about their own goal can potentially affect their level of career aspirations to become an entrepreneur. Additionally, those who want to help students who have low career aspirations to become entrepreneur could identify the students’ level of goal clarity and help them to be more certain about what they want to be.

From this study, it can also be suggested that the first step the students need to take when trying to lower the level of career distress regarding entrepreneurship, is clarifying their own career goal, whether they want to become an entrepreneur or not. Secondly, students need to consider whether their parents have in line aspirations for them, support them when engaging in career exploration and planning, and are satisfied with the progress they are making in the area of entrepreneurship. Finally, students need to identify whether their commitment to parents’ goal make tem difficult to achieve their dreams to become an entrepreneur.

Further, findings from this study also suggest that when helping students facing career distress in relation to entrepreneurship, career counsellors need to explore, and help them identify and be aware of their levels of congruence with parents regarding career matters and their commitment to their parents’ goal, as well as make sure that their career goal is clear enough. Further, the results suggest that parents should be aware that their children’s perceived career congruence with them and commitment with their goal affect the children’s career distress, therefore, they need to be prepared not to use their power to push children to merely follow the parents’ wishes.

While yielding several important findings, this study is not without its limitations. First, readers should carefully interpret the findings of this study, as Career Aspirations Scale scores had internal consistency levels below 0.70. This is not uncommon in scales with a small number of items (Nunnally & Bernstein, 1994). However, future research should seek to employ scales that can perform above this level. Second, our participants were drawn from one university using a convenience sampling technique. This might lower the external validity of the findings, therefore, there is a need to be careful when generalizing the results to other groups of young people. Finally, our cross-sectional data did not allow causal prediction nor to test for reverse and reciprocal effects between the variables, for example, individuals with a higher level of career distress might have a greater congruence with parents regarding career matters, a lower commitment to parents’ goal, and higher level of goal clarity. Therefore, there is a need to investigate the across-time relationships between these variables to draw more robust causal conclusions.

REFERENCES


Business Strategy and Competitive Advantage to Improve Organization Performance in Terms of Environmental Turbulence and Dynamic Capabilities  
(Case Study at PT POS in West Java)

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Institut Manajemen Koperasi Indonesia, Indonesia

Abstract

The growth of the postal industries in Indonesia is currently developing rapidly. One of them which pioneered this situation is the issuance of Law No. 38/2009, where companies can enter into service businesses in the field of couriers. Not only limited to State-Owned Enterprises / BUMNs, but also Regional-Owned Enterprises / BUMDs or cooperatives and the private sector can enter into the postal industries. To maintain its market position, each postal service company is required to be able to provide excellent performance, namely performance above the average of its closest competitors. Superior position in business performance can be obtained through the ability of enterprises to adapt quickly to changes in the environment, and to be able to manage resources that are owned well. Organizational performance will be optimal if there is an alignment between the organization and the organizational environment so that it does not have a strategic gap. The purpose of this study is to obtain a model in the relationship among business strategy and competitive advantage to improve small enterprises performance viewed by environmental turbulence and dynamic capabilities. This research is applied in the agencies of PT POS in West Java which involve 187 agencies altogether. The methods used in this research are descriptive and explanatory survey. The statistic tool used is PLS.

Keywords: business strategy, competitive advantage, dynamic capabilities, environmental turbulence, small enterprise performance

1. INTRODUCTION

In the current era of industrial revolution 4.0, the development of the service industry has been increasing rapidly. One of the reasons is caused by changes of the community life style (especially young people) that desire everything to become practical. One of the service industries in the disruption era is the postal industry (also refers to courier or expedition services) which has experienced significant growth along with economic growth in Indonesia.
The growth of the postal industry in Indonesia is currently evolving fast. One of the things that spearheaded this situation was the issuance of Law No. 38/2009, where companies that can enter into service businesses in the field of couriers become widespread, not only limited to State-Owned Enterprises / BUMN, but also to Regional-Owned Enterprises / BUMDs or cooperatives and the private sectors. The existence of regulation results in more solid competition, so that the amount of market potential and the level of market growth become an enticement for both incumbent and new players.

The consumption sector is expected to contribute to the postal industries in Indonesia, which in 2020 is estimated to reach 270 million people with an enhancement of consumption expenditure level in the amount of 142% or IDR 1,309 Trillion (Annual Report of PT Pos 2017 page 22). Growing consumer demand has led to an increase in companies that enter the service market to be able to compete and survive. Such conditions make customers deal with a variety of alternative purchase options in order to meet their needs, while on the company side itself raises an increasingly competitive climate in preserving consumers.

To maintain its market position, each postal industry company is required to be able to provide well performance, namely performance above the average of its closest competitors. Superior position in business performance can be obtained through the ability of companies to adapt quickly to the milieu changes, as well as afford to manage the resources (Karabag & Berggren, 2014). According to Ansoff and McDonnel (1990), organizational performance will be optimal if there is an alignment between the organization and the organizational environment, so that it does not have a strategic gap. Strategic gaps can be prevented if the formulation of strategies are related to the environmental conditions in which the organization carries out its activities.

Kaplan & Norton (2006: 126) state that to ensure the strategy goes as planned, then the company's business performance can be measured in a balanced manner, which includes financial, customers, internal business processes, and growth perspectives. This model is known as Balanced Scorecard. The dimensions of performance measurement with the Balanced Scorecard are widely used in measuring the performance in both small and medium as well as large enterprises.

The results of company's business performance in each industry basically clarify the level at which companies are able to compete (Pitelis & Teece, 2016). In general, the competitiveness of Indonesian enterprises still has not shown a good position. The World Economic Forum has measured the level of world competition reported every year in the Global Competitiveness Index, as listed in the following table.

Table 1. Global Competitiveness Index in Asean Countries

<table>
<thead>
<tr>
<th>World Rank</th>
<th>Country</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>Singapore</td>
<td>83.5</td>
</tr>
<tr>
<td>25</td>
<td>Malaysia</td>
<td>74.4</td>
</tr>
<tr>
<td>38</td>
<td>Thailand</td>
<td>67.5</td>
</tr>
<tr>
<td>45</td>
<td>Indonesia</td>
<td>64.9</td>
</tr>
<tr>
<td>56</td>
<td>Philippines</td>
<td>62.1</td>
</tr>
<tr>
<td>62</td>
<td>Brunei</td>
<td>61.4</td>
</tr>
<tr>
<td>72</td>
<td>Vietnam</td>
<td>58.1</td>
</tr>
</tbody>
</table>

Source: WEF Report, 2018
The postal industries environment in Indonesia shows the phenomenon of increasing uncertainty due to the business environment turbulence. Environmental turbulence is a situation in an external environment that shows chaos (Emery & Trist, 1965), uncertainty (Auster & Choo, 1992) and irregularities (Calantone et. Al., 2003) that needs to be monitored to become a threat to the achievement of organizational performance. The obvious examples of environmental turbulence in the postal industries are: the enhancement of digital convergence trend marked by the unification of data processing technology (computing), content technology, digital multimedia and telecommunications technology; The existence of Law No. 38/2009 regarding to Post; The emergence of the hyper-competition phenomenon as a result of the emergence of new players and more sophisticated strategies; The emergence of latent competitors that are difficult to identify by incumbent companies and fearsome threats because of substitution services that have disruptive impact on the wholly industries; The growing development of disruptive innovation can lead to market turbulence in the form of changes in service model business.

According to Teece et. al (2007), in order to deal with turbulent environments, firms must continually reconfigure their internal resources and capabilities in order to maintain the sustainability of their competitive advantage and obtain superior performance.

The postal industries in Indonesia generally have also scrutinized the business milieu that experiences environmental turbulence. Various efforts to renew capability have been carried out in order to have new capabilities which are expected to be able to overcome the business environmental turbulence the industries, such as: innovation enhancement, the optimal usage of information technology, providing better quality continuously and so on.

Postal industries problems in Indonesia can be generally formulated as shown in the following table:

<table>
<thead>
<tr>
<th>Issue</th>
<th>Phenomenon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social</td>
<td>Millennial Generation, Green Earth consciousness, Lifestyle change,</td>
</tr>
<tr>
<td></td>
<td>The continuous growth of the middle class society in Indonesia reaches up</td>
</tr>
<tr>
<td></td>
<td>to 60% of the total population</td>
</tr>
<tr>
<td>Economy</td>
<td>The existence of globalization and MEA</td>
</tr>
<tr>
<td></td>
<td>Digital Economy and e-commerce</td>
</tr>
<tr>
<td></td>
<td>Transportation infrastructure development</td>
</tr>
<tr>
<td></td>
<td>The value of e-commerce business in Indonesia is estimated to increase 10x</td>
</tr>
<tr>
<td></td>
<td>to US $ 130 Billion.</td>
</tr>
<tr>
<td>Legal</td>
<td>Issuance of Presidential Regulation (Perpres) Number 74/2017 concerning</td>
</tr>
<tr>
<td></td>
<td>to road map of electronic-based National Trade System</td>
</tr>
<tr>
<td></td>
<td>Environmental regulations regarding to the use of vehicle emissions</td>
</tr>
<tr>
<td></td>
<td>Law 38/2009: Postal Industries Liberalization</td>
</tr>
<tr>
<td></td>
<td>Law: Outsourcing Employment Policy</td>
</tr>
<tr>
<td>Customer</td>
<td>Customer loyalty that can change quickly</td>
</tr>
<tr>
<td></td>
<td>Increasingly diverse ways of transaction</td>
</tr>
<tr>
<td></td>
<td>More segmented customer</td>
</tr>
<tr>
<td></td>
<td>Strongly social environment reference</td>
</tr>
<tr>
<td></td>
<td>Real Time Information</td>
</tr>
<tr>
<td>Environment</td>
<td>Transportation that impacts on traffic jams and accidents</td>
</tr>
<tr>
<td>Technology</td>
<td>Digitized Process,</td>
</tr>
<tr>
<td></td>
<td>Payment System</td>
</tr>
</tbody>
</table>
The emergence of other competitors which provide lower quotes and premium quality delivery
The emergence of other competitors which are not from the postal industries but have roles like the postal industries

Source: BPS report per September 2017, PT POS Annual Report 2017

The conditions, as outlined in Table 2 above, show that business performance is still the main topic in strategic management research, also has the opportunity to conduct advanced performance research by constructing the attributes of strategy formulation and strategy implementation, the postal industries performance in Indonesia is still not optimal, and the availability of opportunities to develop, encourage research into business performance in the postal industries.

Given the urgency of improving postal industries performance, in order to encourage contributors to this sector towards better national economic growth, than the researcher takes the theme "Business Strategy to Improve Organizational Performance Viewed by Environmental Turbulence and Dynamic Capabilities (Case study at PT POS in West Java)".

Organizational performance is the end result of all organizational operational activities in a certain period, which is inseparable from the changing environmental influences. The activities carried out by a company are basically the implementation of the strategy chosen by the company as an effort to understand the extent of organizational performance influenced by Competitive Advantage, Business Strategic, Dynamic Capabilities and Environmental Turbulence. Finally, the purpose of this study is to obtain a model in the relationship among business strategy and competitive advantage to improve small enterprises performance viewed by environmental turbulence and dynamic capabilities.

2. LITERATURE REVIEW

This research uses grand theory, namely strategic management, which is a sequence of process to take decision and managerial actions that determine business unit performance in a long term period.

To describe how an enterprise can excel in a competition and have superior performance, then this research uses middle range theory, namely Resource Based View (RBV) that emphasizes on enterprise internal environment and Market Based View (MBV) that emphasizes on enterprise external environment.

Pearce (2013:92) proposes that external environment is out of control factors that affect organization options refer to organization structure and its internal process. Meanwhile, internal environment is a factor that belongs to the enterprise. Thompson (2016:82) asserts that internal environment consists of resources and capabilities owned by the enterprise. Resources are competitive assets owned or controlled by the company, meanwhile, capabilities or competences are firm’s capacity to disclose internal activities competently. Capabilities are developed and came forth through company resource development.

However, recently, there’s been a paradigm shift on both middle range theory implementations. MBV that used to be stable relatively, nowadays has changed rapidly and turbulently. At the same time, RBV gained challenges since there’s difficulty on company’s issues to retain its uniqueness on rapid change environment and dynamic.

Concerning to those issues, this research uses applied theory approach, which is Environmental Turbulence theory developed by Mason (2012) and Lynn et al (2012) as a
derivative from MBV theory approach and Dynamic Capabilities theory developed by Pavlou and El Sawy (2011) as a derivative from RBV theory approach. Superior Business Unit can be grabbed if the enterprise’s able to get profit and apply business strategic to create competitive advantage by integrating both internal and external environment factors. Therefore, this research uses applied theory, namely Business Strategic developed by Porter (1980) & Hitt (2015) and Competitive Advantage developed by Nidumolu & Knotts (1998) and Chen (2012). Finally, to measure the impact of strategy applied by business, it uses applied theory, namely Business Performance developed by Kaplan & Norton (2008).

Strategic Management

David & David (2016:33) defines that Strategic Management is the art and science of formulating, implementing, and evaluating cross-functional decisions that enable an organization to achieve its objectives. Meantime, Wheelen (2018:37) states that Strategic management is a set of managerial decisions and actions that help determine the long-term performance of an organization. It includes environmental scanning (both external and internal), strategy formulation (strategic or long-range planning), strategy implementation, and evaluation and control. The same tone’s homologated by Pearce (2013) that Strategic Management is a sequence of decision and actions that result formulation and implementation plan to reach company’s purposes.

Gamble (2015:26) declares that the larger and the more diverse the operations of an enterprise, the more points of strategic initiative it will have and the more managers at different organizational levels will have a relevant strategy-making role. Thompson (2016:32) adds that company strategy hierarchy consists of three levels, namely: Corporate Strategy, Business Strategy, Functional Area Strategies and Operating Strategies.

Environmental Turbulence

Environmental Turbulence is a situation in an external environment that reveals the existence of chaos (Emery & Trist, 1965), uncertainty (Auster & Choo, 1992) and irregularity (Calantone et. al., 2003) that needs to be monitored that affect organization performance achievement. Various researchers state that is not easy to quantify turbulence, even the real measurement on the amount and significance of turbulence incident by time to time maybe is an impossible thing (Pine, 1993). Nevertheless. The researchers attempt to find out various dimensions that can be used to measure environmental turbulence variables. Overall, some dimensions often used to fathom environmental turbulence constructs that shown in this table.

**Table 3. Previous Studies About Environmental Turbulence Dimensions**

<table>
<thead>
<tr>
<th>Researchers</th>
<th>Environmental Turbulence Dimensions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dess &amp; Beard (1984)</td>
<td>Dynamism (speed of change, uncertainty, and difficulty to predict), complexity, munificence</td>
</tr>
<tr>
<td>Ansoff &amp; McDonel (1990)</td>
<td>Novelty of change, speed of change, complexity, predictability of change in business environment</td>
</tr>
<tr>
<td>Jaworski &amp; Kohli (1993)</td>
<td>Market turbulence, technology turbulence, competition intensity</td>
</tr>
<tr>
<td>Glazer &amp; Weiss (1993)</td>
<td>Increasing numbers of dramatic event, frequent changes in knowledge base capital, high rates of change, sharply disconnection in needs and growth rates, increasing uncertainty and unpredictable regarding the future</td>
</tr>
</tbody>
</table>
Considering to the characteristics of industry which is the focus of research, namely postal industries that have high turbulence level (Eisenhardt, 1989), then the dimensions used to gauge environmental turbulence variable are market environmental turbulence, technology environmental turbulence, regulation environmental turbulence, and competition environmental turbulence.

**Dynamic Capabilities**

Dynamic capabilities first introduced by Schumpeter (1934), that is innovation based competition where competitive advantage was based on destruction effectively on existing resources and combined them with new resources to become new operational ability (Pavlou & El Sawy, 2011). These thoughts further developed, namely architecture innovation (Abernathy & Clark, 1986), configuration competence (Henderson & Cockburn, 1994) and combination ability (Kogut & Zander, 1992).

To expand this study, Teece (1997) then developed dynamic capabilities notion so that their concepts are considered as the most influential dynamic capabilities study sources. Teece (1997:515) look at competitive advantage in a turbulent environment as a dynamic capabilities function rather than competitive or conflict position in industries. The term “dynamic” is used to reflect “capabilities to renew competence so that they reach a suitability with environmental changes”.

In sundry literatures regarding to dynamic capabilities, generally there are four processes that boost reconfiguration activity, innovation and changes, so they are made as dimensions to measure, namely: sensing, learning, coordinating and integrating.

![Figure 1. Framework of Dynamic Capabilities Model Measurement](Source: Pavlou & El Sawy (2011))
**Business Strategy**

A strategy is an integrated and coordinated set of commitments and actions designed to exploit core competencies and gain a competitive advantage (Hitt, 2015:4). A company’s strategy explains why the company matters in the marketplace by specifying an approach to creating superior value for customers and determining how capabilities and resources will be utilized to deliver the desired value to customers (Gamble, 2105:2). Business strategy is strategy at the single-business level, concerning how to improve performance or gain a competitive advantage in a particular line of business (Thompson, 2016:32).

Business strategy focuses on improving the competitive position of a company’s or business unit’s products or services within the specific industry or market segment that the company or business unit serves. Business Strategy can be competitive and/or cooperative (Wheelen, 2015:203).


An cooperative strategy is a means by which firms collaborate for the purpose of working together to achieve a shared objective (Hitt, 2015:264). Furthermore, Hitt (2015:271) propose that A business-level cooperative strategy is a strategy through which firms combine some of their resources and capabilities for the purpose of creating a competitive advantage by competing in one or more product markets. They also describe that Business-Level Cooperative Strategies are Complementary strategic alliances, Competition response strategy, Uncertainty-reducing strategy and Competition-reducing strategy.

**Competitive Advantage**

Strategic management is all about gaining and maintaining competitive advantage. This term can be defined as any activity a firm does especially well compared to activities done by rival firms, or any resource a firm possesses that rival firms desire (David & David, 2017:36). A company achieves sustainable competitive advantage when an attractively large number of buyers develop a durable preference for its products or services over the offerings of competitors, despite the efforts of competitors to overcome or erode its advantage (Gamble 2015:6). A firm has a competitive advantage when it implements a strategy that creates superior value for customers and that its competitors are unable to duplicate or find too costly to imitate (Hitt, 2015:5).

By considering the renewal of research, usage of theory suitability and the characteristics of postal industries in Bandung, then the dimensions used to measure competitive advantage in this study use the dimensions and indicators developed by Nidumolu & Knotts (1998) and Chen (2012), namely:

1. **Product cost leadership** with indicators: to what extent postal industries business unit superiority compared to their competitors to create lower cost products or services, selling more competitive products and creating more efficient products or services.
2. **Market Responsiveness** with indicators: to what extent business unit speed of postal industries in Bandung compared to their competitors in responding new customer needs,
fitting products towards customers needs, entering new market, developing new products.

Business Unit Performance

Wheelen (2018:53) proposes that Performance is the end result of activities. It includes the actual outcomes of the strategic management process. The practice of strategic management is justified in terms of its ability to improve an organization’s performance, typically measured in terms of profits and return on investment.

Developed in the early 1990s by Harvard Business School professors Robert Kaplan and David Norton, and refined continually through today, the Balanced Scorecard is a strategy evaluation and control technique (David & David, 2016:369). Hannabarger (2007:10) explains that the key problem that Kaplan and Norton identified in today’s business was that many companies had the tendency to manage their businesses based solely upon financial measures. While that may have worked well in the past, the pace of business in today’s world requires better and more comprehensive measures. Some of the criticisms levied against the overabundant use of financial measures (Niven, 2006: 3-4): Not consistent with today’s business realities, driving by rearview mirror, tend to reinforce functional silos, Sacrifice long-term thinking, Financial measures are not relevant to many levels of the organization.


Previous Studies

Several previous studies, related to this research, are summarized in this table.

<table>
<thead>
<tr>
<th>Year</th>
<th>Researcher</th>
<th>Title</th>
<th>Variable</th>
<th>Dimension</th>
<th>Sample</th>
<th>Data Analysis</th>
<th>Similarity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>D. Li &amp; J. Liu</td>
<td>Dynamic Capabilities, Environmental Dynamism &amp; Competitive Advantage: Evidence from China</td>
<td>1 Dynamic Capabilities</td>
<td>1 Strategic sense-making capacity; 2 Timely decision-making capacity; 3 Change implementation capacity</td>
<td>217 Enterprise in China</td>
<td>Partial Least Square</td>
<td>Similarity: Environmental Turbulence as independent variable; Discrepancy: Study done in a corporate level</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 Environmental Dynamism</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3 Competitive Advantage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 Competitive Advantage</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>Oliver Schilke</td>
<td>On the contingent value of Dynamic</td>
<td>1 Competitive Advantage</td>
<td>1 Financial; 2 Non-Financial</td>
<td>279 companies</td>
<td>Confirmatory Factor Analysis &amp;</td>
<td>Similarity: inspect competitive advantage</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1 Strategic performance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capabilities for Competitive Advantage: The non linear moderating effect of Environmental Dynamism</td>
<td>2 Alliance Management Capability</td>
<td>performance 1 Inter-organizational coordination; 2 Alliance portfolio coordination; 3 Inter-organizational learning; 4 Alliance pro activeness; 5 Alliance transformati on; 6 New product developmen t capability</td>
<td>Ordinary Least Squares (OLS)</td>
<td>and environmental turbulence Discrepancy: environmental turbulence as moderating variable, not involved dynamic capabilities variable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------------------------------------------</td>
<td>---------------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------</td>
<td>--------------------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dynamic Capabilities and Firm Performance in a Financial Crisis</td>
<td>3 Environmental Dynamism 2 Dynamic Capabilities</td>
<td>1 Regenerative Capabilities; 2 Renewing Capabilities</td>
<td>452 Media and shipping food enterprise</td>
<td>Similarity: inspect relationship between dynamic capabilities and performance Discrepancy: not involved environmental turbulence and competitive advantage variables Similarity: inspect the relationship between environmental turbulence and performance Discrepancy: not</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Impact of Environmental Dynamism on Marketing Strategy Comprehensive ness &amp; Organizational Performance</td>
<td>1 Environmental Dynamism 2 Marketing Strategy Comprehensive ness</td>
<td>1 Intensity of Change 2 Frequency of Change 1 Alternative course; 2 multiple explanation; 3 examine multiple explanation; 4 possible</td>
<td>53 telecommunication company managers in Jordan</td>
<td>Descriptiv e Analysis and multiple &amp; Simple regression analysis</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
After learning previous studies, then the superiority of this research compared to them (state of the art) are:

1. This research involves five variables, namely: Environmental Turbulence, Dynamic Capabilities, Business Strategy, Competitive Advantage, and Business Unit Performance which has never been done by other researchers.
2. Similar research has never been done in postal industries and found in various journals.

This is a descriptive research. The purpose of this research is to gain the representation about postal industries business in Bandung as well as to analyze both characteristics and empirical condition of research variables. Variable is a concept that has more than a value, condition, category or situation (Muhyiddin, 2017:56). The variables used in this research are Business Unit Performance, Competitive Advantage, Business Strategic, Dynamic Capabilities, and Environmental Turbulence. As mentioned by Sekaran (2013:158) descriptive research tends to reveal the characteristics and situations of variables.

The observation uses cross-sectional or one shoot time. It means the information or data acquired is the result of research done in a certain of period, namely December 2018 to March 2019.

Populations are a group of people, events or anything that have certain characteristics (Indriantoro, 2012:115). The populations in this research are all post office agents in the Regional Post 5 which involves all representative cities in West Java. There are 350 post office agents in this Region. The researcher chooses Regional Post 5 because it is one of the biggest provinces in Indonesia. It means that the result of this research hopefully can be a representation of postal industries issues in Indonesia.

Because of time and cost limitation, so the researcher uses Slovin sample method.

\[ n = \frac{N}{1+Ne^2} \]  \hspace{1cm} (1)

This sample method then is applied, with the error of 5% then we get
Quantitative analysis is used along with Structural Equation Model (SEM) variance based or Partial Least Square (PLS) component to verify the relationship among variables. The SEM method, continuity of path analysis and multiple regression, is a type of multivariate analysis (Haryono, 2017:1). Meanwhile, Partial Least Square is a powerful analysis and often mentioned as soft modeling since it abolishes regression OLS (Ordinary Least Squares) assumptions, such as the data has to be a normal distribute in a multivariate way and no multicollinearity problem among exogenous variables (Wold, 1985).

3. RESULT AND DISCUSSION

To gain research model, the researcher uses Smart PLS v.3.28. The following figure is the model provided

The researcher uses formative indicator construct. It assumes that each indicator defines or describe characteristics of its construct domain. The indicator direction is from indicator to the construct. The measurement mistake shown on construct not on its indicator, so that construct reliability and validity tests are not prominent (Ghozali, 2015:58). To test the impact of intervening variable, the researcher uses path analysis method. Path analysis is the extent of multiple linear regression analysis, or path analysis is the usage of regression analysis to assess causal relationship among variables (Ghozali, 2018:245).

Based on the result, R-square value on Business Strategy is equal to 0.371, it means that Business Strategy variable that can be explained by Environmental Turbulence and Dynamic Capabilities is only equal to 0.371. Meanwhile, R-square value on Competitive Advantage is equal to 0.292, it means that Competitive Advantage variable that can be explained by Environmental Turbulence, Dynamic Capabilities and Business Strategy is only equal to 0.292. Finally, R-square value on Business Unit Performance is equal to 0.512, it means that Business Unit Performance variable that can be explained by Environmental Turbulence, Dynamic Capabilities and Competitive Advantage is equal to 0.512. Following provided the result of path analysis in tables.
Table 5. Direct Effect among Variables

<table>
<thead>
<tr>
<th></th>
<th>Original Sample</th>
<th>T statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>CA ⇒ UBP</td>
<td>0.077</td>
<td>0.293</td>
</tr>
<tr>
<td>DC ⇒ CA</td>
<td>-0.401</td>
<td>0.941</td>
</tr>
<tr>
<td>DC ⇒ UBP</td>
<td>0.512</td>
<td>1.480</td>
</tr>
<tr>
<td>DC ⇒ BS</td>
<td>0.296</td>
<td>0.741</td>
</tr>
<tr>
<td>BS ⇒ CA</td>
<td>-0.165</td>
<td>0.587</td>
</tr>
<tr>
<td>ET ⇒ CA</td>
<td>0.604</td>
<td>1.689</td>
</tr>
<tr>
<td>ET ⇒ UBP</td>
<td>0.316</td>
<td>0.659</td>
</tr>
<tr>
<td>ET ⇒ BS</td>
<td>0.417</td>
<td>1.172</td>
</tr>
</tbody>
</table>

Note  CA  Competitive Advantage  DC  Dynamic Capabilities  UBP  Unit Business Performance  BS  Business Strategy  ET  Environmental Turbulence

Based on the table, it can be summarized that DC has a direct effect towards BS with coefficient equal to 0.296 and insignificant on 5% (t value < t table or 0.741 < 1.96). DC has also a direct effect towards CA with coefficient equal to -0.401 and insignificant on 5% (0.941 < 1.96). DC has a direct effect towards UBP with coefficient equal to 0.512 and insignificant on 5% (1.480 < 1.96)

Table 6. Indirect Effect Among Variables

<table>
<thead>
<tr>
<th></th>
<th>Original Sample</th>
<th>T statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>DC ⇒ CA</td>
<td>-0.049</td>
<td>0.379</td>
</tr>
<tr>
<td>DC ⇒ UBP</td>
<td>-0.035</td>
<td>0.275</td>
</tr>
<tr>
<td>BS ⇒ UBP</td>
<td>-0.013</td>
<td>0.170</td>
</tr>
<tr>
<td>ET ⇒ CA</td>
<td>-0.069</td>
<td>0.501</td>
</tr>
<tr>
<td>ET ⇒ UBP</td>
<td>0.041</td>
<td>0.406</td>
</tr>
</tbody>
</table>

Based on Indirect Effect Table, it can be summarized that DC has indirect effect towards CA through BS with coefficient equal to -0.049 and insignificant on 5% (0.379 < 1.96). DC has also indirect effect towards UBP through BS and CA with coefficient equal to -0.035 and insignificant on 5% (0.275 < 1.96). So, it can be concluded that DC has a direct effect on BS, it also has indirect effect towards CA and UBP.

PT POS Indonesia Circumstance

PT POS Indonesia is a State Owned Enterprise (SOE) engaged in courier services, logistics and financial transactions. The name of PT Pos Indonesia (Persero) was officially used in 1995,
having previously used the name of the PTT Service (Post Telegraaf end Telefoon Diensts) in 1906; later changed to PTT (Telegraph and Telephone Post) in 1945; then changed its status to State Enterprise Post and Telecommunication (Postel PN) in 1961 and became PN Pos & Giro in 1965, and then became Perum Pos and Giro in 1978.

Until now, Pos Indonesia operates a postal activity based on three core business namely mail and package delivery services, financial services, logistics and an additional business that is retail.

Business Strategy at PT Pos is all actions done by enterprise to gain a bigger profit compared to its competitor. Some of the company’s strategies in developing the company’s business portfolio include:

1. The development of business letters and packages is focused on market acquisition, quality improvement, competitive prices and increased accessibility.
2. Operational capacity building by the logistics technology, recruitment and transformation of logistics solutions and establish key account management to create operational excellence.
3. The development of financial service business highlighted on the enhancement of payment revenue, remittance and bank channeling.
4. In order to build trust in the community, management seeks to improve the quality of service, accessibility and reliability of outlets and agents while maintaining the right distribution of consignment goods and strengthening the philately business.

Meanwhile, PT Pos has competitive advantage to win a competition in its industry. Several important activities and Event done in 2017 are:

1. Comprehensive preparation of corporate transformation blueprints in collaboration with international consultants Mckinsey & Co as a strong foundation in facing the challenges of business dynamics.
3. The latest technology-based infrastructure development of the company’s transformation still continuously supporting, by 2017 Pos Indonesia E-commerce Sorting Machine has been built, which is the only cutting-edge machine in the E-commerce shipment sorting process in Indonesia that is not owned by other online courier providers in Indonesia to meet the capacity and quality of E-commerce submissions to be guaranteed on time, exact delivery address and support the implementation of cash on delivery service.
4. Has signed a strategic partnership between PT Pos Indonesia and Lion Airline about space utilization in Postage Transportation all over Indonesia.
5. Organizing Seat Management as an IT solution for upgrading service standards in the provision of IT tools, hardware and software maintenance, and technical support for the smoothness of Postal services in accordance with Service Level Agreement (SLA). In the purpose of efficiency in the provision of IT tools, turning CAPEX into OPEX, directing HR to focus more on core business, and ensuring the existence of IT devices used in the company’s services is always up to date.
6. Research Cooperation with National University of Singapore (NUS) in “Improving Transportation Network Efficiency to Minimize Logistics Cost and Maximize Transporter Utilization”
7. Implementation of Share Service Center an integrated, centralized, organized, simplified service in the field of financial impact is in the form of effectiveness, efficiency, improving internal control quality and may decrease fraud.

8. Launch of O-ranger service to make it easier for customers to access company services. Customers do not need to come to the post office to save time, effort and cost. The main segments of this service are Business Online, SME, Shopping Center, Office and Housing.

To solve the existing problem, the researcher gives some suggestions as follows:

**Table 7. Action Planning and Purposes for PT Pos Agencies Based on The Result**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Action Planning</th>
<th>Purpose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmental Turbulence</td>
<td>Increasing attention on the existence of new products / services based on technological breakthrough and cooperate to make it product innovation. Implementing market intelligence to immerge on market changes and customer preferences. Launching new various products/services and communicating them extensively. Improving collaboration with government.</td>
<td>Using opportunities from the technological breakthrough. Understanding, fulfilling and anticipating customers needs. Using new products quest. Looking after competitions to become more conducive. Improving learning, integrating, coordinating and sensing capabilities.</td>
</tr>
<tr>
<td>Dynamic Capabilities</td>
<td>Reshaping competence through developing new competence intensity and coaching employees. Reshaping sources through strengthening organizational culture based on required dynamic capabilities competence. Reshaping sources through renewing more appropriate infrastructure with technology development direction.</td>
<td>Decreasing risk and uncertainty. Designing, Producing and marketing more efficient products/services. Increasing market-share &amp; revenue. Increasing product innovation. Reducing cost of goods sold.</td>
</tr>
<tr>
<td>Business Strategy</td>
<td>Intensifying collaboration with other courier services. Increasing product cost efficiency.</td>
<td></td>
</tr>
<tr>
<td>Competitive Advantage</td>
<td>Expanding to growing new markets. Accelerating product development innovation. Cost optimization.</td>
<td></td>
</tr>
</tbody>
</table>
5. CONCLUSION AND RECOMMENDATION

The purpose of this study is to obtain a model in the relationship among business strategy and competitive advantage to improve small enterprises performance viewed by environmental turbulence and dynamic capabilities. This research is applied in the agencies of PT POS in West Java which involve 187 agencies altogether. The result shows that R-square value on Business Strategy is equal to 0.371; Competitive Advantage is equal to 0.292 and Business Unit Performance is equal to 0.512. Meanwhile, the influence among variables can be seen in Table 5 and 6. For now, the enterprise has been doing a lot of efforts in order to increase its competitive advantage with various business strategies, so that it can gain better performance and profit. For further research, the researcher suggests to use all courier services in Indonesia.

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Laporan Kinerja Badan Pusat Statistik 2017


Quality Evaluation of Electronic Services on Train Passengers in Surabaya, Indonesia

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Abstract

A good evaluation of the provision of transportation information quality on the railway company’s website must be easy to use, help and encourage passengers to navigate the entire website. If the railway service operator can provide a good quality service on its website, then the quality of electronic services is expected to affect customer satisfaction and loyalty. Therefore, this study examined the quality of electronic services which has a positive influence on the satisfaction and loyalty of train passengers. This survey was conducted on 224 respondents and analyzed using Partial Least Square (PLS). The results of the study showed that the quality of electronic services has a significant and positive effect on electronic satisfaction as well as on electronic loyalty for the train passengers. Thus, electronic satisfaction has a significant and positive effect on electronic loyalty in train passengers.

Keywords: e-service quality, e-satisfaction, e-loyalty

JEL classification: M310

1. INTRODUCTION

Quality services which presented through online media are innovations carried out by the companies to communicate and connect directly with their customers. The use of internet can enlarge and expand the channels for consumers to connect or communicate with companies, how consumers buy products and find information about the products and the companies through virtual media (Ranaweera, Bansal, and McDougall 2008). The attributes or features of services provided by companies using online are known as electronic service quality (electronic service quality / e-servqual / e-SQ) (Cristobal, Flavián, and Guinalu 2007; Parasuraman, Zeithaml, and Malhotra 2005b; Ribbink et al. 2004). The quality of electronic services is an indispensable element for evaluating the customer satisfaction and loyalty. There are several articles which examine the quality of websites in the transportation sector (Chen and Kao 2010; Chen 2008; Cheng 2011; Lubbe 2007; Su et al. 2008). Along with the dynamics of the business world and the growing demands of the market, Kereta Api Indonesia (KAI) or Indonesian Railway Company is currently also carrying out other supporting business activities by utilizing its resources, includes property management related to railway services, railway-based tourism, on train and at station services.
In its journey, KAI has proven to be a driving factor in the growth of the country with its role as the backbone of rail-based transportation system that carries 394.1 million passengers and 40.1 million tons of goods in 2017. KAI continues to develop and improve its quality of facilities, infrastructure and services in order to improve connectivity of Indonesian citizens and to streamline the national logistics system by providing efficient, low emission, safe and comfortable railway transport. This study has three objectives to find out 1. influence of the electronic service quality on consumer electronics satisfaction, 2. influence of the electronic service quality on consumer electronics loyalty, 3. influence of the consumer electronics satisfaction on consumer electronics loyalty. The object of the research to be examined is the official Indonesian Railroad website.

A good quality of transportation information provision on the railway company’s website must be easy to use, help and encourage passengers to navigate the entire website. Based on the previous research conducted by Cheng (2011) on railway company’s website, it stated that the quality of electronic services can be measured through two dimensions, they are the quality of information provided by transportation service providers and the quality of services displayed on the service provider's website. Cheng (2011) showed how the quality of transportation information and the quality of website service play an important role in evaluating the quality of railroad company’s website. Information about transportation available on the website can include the conveniences of finding published schedules, seat selections, price rates, how to buy tickets online, online payments and information about various types of promotions (Cheng 2011). Cheng (2011) also argued that the quality of transportation information provision and website services are elements that then can be expected to influence the customer satisfaction and loyalty.

The same opinion expressed by Liang & Lai (2002) who stated that the quality of electronic services can affect consumer loyalty. Consumers who provide good service quality evaluations tend to repurchase products on the same website (Laroche et al. 2005). Good quality services through a website are needed to attract and also retain the online consumers (Riel, Liljander, and Jurriëns 2001). The research of Srinivasan et al. (2002) found that the dimensions of electronic service quality are worth considering because they can increase the electronic loyalty. Online loyalty or e-loyalty has been understood as the desire of consumers to buy from the same websites over and over again and they will not switch to other websites (Casaló et al. 2008).

On the other hand, related to railway company, Cheng’s research (2011) showed that the effectiveness of the provided transportation information quality of and website services quality are the important determinants of customer satisfaction. Electronic satisfaction is influenced by customer expectations about the quality of services on the railway company’s website (McKinney, Yoon, and Zahedi 2002). Moreover, electronic satisfaction is the main antecedent variable for electronic loyalty variables (Chiou, 2004). Satisfaction is defined as a result which contributes to the development of consumer loyalty. Ribbink et al. (2004) indicated that satisfaction is positive and has a direct effect on consumer loyalty in the online businesses. Balabanis et al. (2006) and Semeijn et al. (2005) found that there is a positive relationship between electronic satisfaction and electronic loyalty. Consumer satisfaction is highly correlated with the buying intention in the future (Patterson, Johnson, and Spreng 1997). Bansal et al. (2004) explored the relationship between electronic satisfaction, consumer buying behavior, and actual browsing behavior. In addition, electronic satisfaction leads consumers to use the services more often, have a high intention to repurchase the services and recommend the services to their colleagues. Customer loyalty shows an emotional attachment and a strong behavioral commitment to the company and its website (Ko, Hur, and Valacich 2011). Customer satisfaction is in general regarded as the main variable in influencing the loyalty variables of online businesses (Gummerus et al. 2004).
This is also reinforced by a statement from Shankar et al. (2003) that the effect of satisfaction on loyalty has stronger impact which occurs in the online environment than offline or in the real life.

2. LITERATURE REVIEW

**e-service quality**

Service quality is the result of a comparison made by consumers’ expectations on a service and consumers’ perceptions on the displayed service (Grönroos 1984; Parasuraman, Zeithaml, and Berry 1985, 1988). The first definition of electronic service quality was expressed by Zeithaml, Parasuraman, & Malhotra (2002) who described the quality of electronic services as a whole phase on the customer interactions with websites which includes shopping, purchasing and shipping the products or the services efficiently and effectively. Meanwhile, Santos (2003) argued that electronic service quality is the overall consumers’ evaluation and assessment regarding the advantages and the quality of electronic services in the virtual market. Collier & Bienstock (2006) states that electronic service quality is related to customer perceptions on the service outcomes with its solutions in case of problems with the service.

Related to the service of railway company, according to Cheng (2011), the quality of electronic services can be measured in two dimensions, they are the quality of transportation information provision and the quality of website service especially in the information content and availability (Y. W. Lee et al. 2002; Liu and Arnett 2000; Su et al. 2008; Zeithaml, Parasuraman, and Malhotra 2002). Online transactions are a set of complex processes that can be divided into sub-processes; such as navigation, information searching, negotiation, online payment, delivery, and after-sales services. Furthermore, when a customer decides to book a ticket of transportation service, he or she needs a provision of information; such as the timetable, seat availability, price information or fares, and promotion information. In term of website service quality, it is defined as the measurements and factors which contain of efficiency and tangibles (Zeithaml, Parasuraman, and Malhotra 2002), reliability (Negash, Ryan, and Igbaria 2003), privacy (Yang et al. 2001; Honey & Honey 2002; Parasuraman, et al. 2005; Collier & Bienstock 2006), responsiveness (Cheng 2011) and contact (Raman et al. 2008).

**e-satisfaction**

Satisfaction is a person’s feelings of pleasure or disappointment resulted from comparing a product’s perceived performance (or outcome) to expectations (Tsirios, Mittal, and Ross, Jr. 2004). According to Oliver (1997), satisfaction is the summary of psychological state which occurs when emotion from the disconfirmed customers’ expectations combined with their prior feelings on the consumer experience. Satisfaction is the outcome of an evaluation process, when consumers examine the results of their prior service utilization and then decide whether or not they will continue to use the service (Bhattacherjee 2001). Anderson & Srinivasan (2003) defined e-satisfaction as the costumers’ contentment with respect to his or her prior purchasing experience with a certain electronic commerce firm. In other words, a consumer’s satisfaction level reflects how successfully and effectively a company implements its business operations (Melone 1990; Zviran, Glezer, and Avni 2006).

**e-loyalty**

Loyalty provides a meaningful indicator of success for a company in transportation industry. Consumer loyalty is one of the most important outcomes in online business. Oliver
(1999) defined loyalty as a deep commitment to rebuy or re-utilize a preferred product or service in the future despite any situational influenced marketing efforts which have the potential to cause switching behavior. Meanwhile, Blackwell, Miniard, & Engel (2001) also defined loyalty as the preferential, attitudinal, and behavioral response toward one or more brands in a certain product category expressed over a period of time by a consumer. Moreover, Kotler & Keller (2016) defined loyalty as a favorable attitude toward a specific brand which leads to consistent purchase of that brand over time.

While, online loyalty or e-loyalty has been conceived as a consumer’s intention to buy from a certain website and that consumers will not change to another website (Casaló et al. 2008). Therefore, Anderson & Srinivasan (2003) defined e-loyalty as the customer’s favorable attitude toward an electronic business resulting in the repeating buying behavior. Cristobal et al. (2007) also described e-loyalty as a consumer’s intention to buy a good or service from a certain website with the intention to revisit this website again. Indeed, Ribbink et al. (2004) confirmed that e-loyalty is considered an important aspect because it positively influences the long-term profitability. Loyalty toward a website may be cultivated and strengthened as the online consumers repetitively use the various quality of functions and services offered by the website (Reichheld and Schefter 2000). Cyr et al. (2005) defined e-loyalty as an intention to revisit a website or to make a transaction from it in the future. These definitions have emphasized the behavioral dimensions of loyalty, such as a repeating purchase behavior. In addition, Cyr (2008) also defined e-loyalty as the perceived intention to revisit or reutilize a website in the future and to consider of repurchasing from it in the future. Meanwhile, related to railway company's electronic service quality, Cheng (2011) defined e-loyalty as a customer’s favorable attitude toward a certain railway website which predisposes the customer to repeat the buying behavior.

Hypothesis Development

**e-service quality and e-satisfaction**

In railway company’s website, e-satisfaction is influenced by the website quality, including the quality of transportation information provision (Zeithaml et al. 2002; Su et al. 2008) and the quality of website service (Cheng 2011). Cheng (2011) has shown that the effectiveness in quality of transportation information provision and quality of website service are the most important determining factors of consumer satisfaction. E-satisfaction is affected by online customers’ expectation on the quality of railway company’s website service (McKinney, Yoon, and Zahedi 2002). Evaluation of transactional quality entails an examination of pre- and post-service experiences. To optimize the internet as a major distribution channel, a key factor to satisfy customers is delivering a high quality of service. Wolfinbarger & Gilly (2003) stated that there is a positive link between electronic service quality and electronic satisfaction.

Cheng (2011) has used electronic service quality dimensions which are the quality of transportation information provision and the quality of website service for measuring the customer satisfaction in the case of railway company’s website. He showed how both qualities play a crucial part in the quality evaluation of railway company’s website. It means that how customers find information and accomplish a transaction with the least amount of effort. The quality of transportation information provision on website should include the ability to easily find the published schedule, how to buy an online ticketing, seat selection, fares, online payment and the information on promotion (Cheng 2011). On other hand, Cheng (2011); Parasuraman, et al. (2005); Cristobal et al. (2007) showed that the quality of website service enhances the customer satisfaction in the online environment. Cristobal et al. (2007) stated that websites often collect a variety of sensible, personal information from their users.
in order to understand and fulfill their service its users. Accordingly, privacy and security features have become a serious concern. Meanwhile, the quality of website service which includes contact is the determinant of electronic satisfaction which combines problem solving capability, the willingness of personnel to help, and the prompt answers to any inquiries from the users (Cristobal, Flavián, and Guinaliu 2007). Interaction between users and service providers’ employees or between users and the website is considered as the important factor in the online environment. It is because the internet users, in this case the train passengers, may still expect to receive personalized or customized services from knowledgeable, responsive, and caring contact persons.

**Hypothesis 1: E-service quality positively affects e-satisfaction**

**e-service quality and e-loyalty**

Service quality refers to the overall support delivered by the website, for example how well the level of delivered service matches the customer expectations (Ahn, Ryu, and Han 2007; Y. Lee and Kozar 2006). In the current study, service quality comprises the service efficiency and fulfillment which consists of these following items: an ability to complete a transaction quickly, an ease of canceling or modifying a reservation, and a searching mechanism. Liang & Lai (2002) argued that the quality of website service positively affects the repurchase behavior. There is a positive influence between the online quality service and the electronic loyalty in railway environment which is based on these two dimensions of e-service quality, they are quality of transportation information provision and quality of website service (Cheng 2011). Consumers who have a positive service quality evaluations were more likely to repurchase products on the website (Laroche et al. 2005). A high quality service in a website is necessary to attract and retain online consumers (Riel, Liljander, and Jurriëns 2001). Srinivasan et al. (2002) found that the electronic service quality dimensions are considered to drive e-loyalty.

**Hypothesis 2: E-service quality positively affects e-loyalty**

**e-satisfaction and e-loyalty**

E-satisfaction has been found to be the principal antecedent of e-loyalty (Chiou, 2004). Satisfaction is an outcome which contributes to the development of consumer loyalty. Ribink et al. (2004) indicated that satisfaction positively and directly influences loyalty in the online business. Customer loyalty shows a strong emotional attachment and behavioral commitment toward an organization and its website regardless their satisfaction level or any other situational influences (Ko, Hur, and Valacich 2011). Customer satisfaction is generally considered as a major driver of loyalty in the online settings (Gummerus et al. 2004). As it is considered difficult to gain customer loyalty on the internet (Gommans, Krishnan, and Scheffold 2001), a satisfaction to the merchant’s service can improve the loyal customer even more. Shankar et al. (2003) suggested that the effect of satisfaction on loyalty is stronger in online business than offline. Furthermore, Balabanis et al. (2006) and Semeijn et al. (2005) also found a positive relationship between e-satisfaction and e-loyalty. Customer satisfaction is highly related to the future purchase intentions (Patterson, Johnson, and Spreng 1997). Bansal et al. (2004) explored the relationship between (1) e-satisfaction and customers’ purchasing intention behavior and (2) actual browsing behavior. Moreover, e-satisfaction tends to have a higher utilization of service, a stronger repurchase intention, and an eagerness to recommend the service to their acquaintances.

**Hypothesis 3: e-satisfaction positively affects e-loyalty.**
3. METHODOLOGY

Sample and Data Collection

The development and advancement of technology make it easy for consumers to buy train tickets online along with the options to choose the seats, the routes, and the destinations; arranging the departure and the arrival schedules as desired; and selecting the options of payments. This study aimed to examine the train consumers who buy tickets online at the official website of Kereta Api Indonesia or KAI (Indonesian Railway Company). The survey was conducted for 3 months. 300 questionnaires were distributed to East Surabaya, Central Surabaya, South Surabaya, North Surabaya and West Surabaya. Questionnaires were distributed and returned with the return rate of 74% or 224 questionnaires based on the selected criteria.

Research Measurement

The used instrument of measurement was scale surveys like the previous studies. All indicators were measured using a 5-point Likert Scale (1 = strongly disagree, 5 = strongly agree). Electronic service quality was measured by applying 29 (twenty-nine) indicators adopted from the research conducted by Cheng (2011). E-satisfaction was measured by using 6 (six) indicators and which were adopted from a research conducted by Oliver (1980). Meanwhile, e-loyalty was measured by utilizing 7 (seven) indicators adapted from a research studied by Gremler & Brown (1996).

Data Analysis Technique

In testing the hypotheses and research models, this study used partial least squares (PLS) model (Chin, 1998; Chin, et al., 2008; Hair, et al., 2012; Hair, et al., 2011), and applied the Smart PLS program 2.0 (Ringle, et al., 2005). The PLS model was picked because it matched with the interaction effects testing (Mitchell, Mitchell, and Smith, 2008) and did not require a normal multivariate data testing (Chin, 1998; Siren, et al., 2012). The preferred model was chosen based on the fact that the primary concern of this study was the prediction of a dependent endogenous variable (Chin, 1998). Bollen and Stine (1992) suggested that the bootstrapping method was used to estimate the significance of path coefficient.
4. RESULTS AND DISCUSSION

Profile of Respondents
The research questionnaire was 300 distributed to East Surabaya, Central Surabaya, South Surabaya, North Surabaya and West Surabaya. There were 76 respondents who were not in accordance with the established criteria, therefore that they could not be included for the next stage. There were 224 questionnaires which were in accordance with the set criteria and could be follow up to the next stage. The result showed that the range of respondent’s ages was dominated by the age range of 20-30 years old, which reached 65%, then followed by the age range of 41-50 years old at 20% and, at last, the age range of 31-40 years old at 15%. There were around 50% respondents purchased the train tickets using the online services mainly 3-4 times a month, while, 35% respondents bought the tickets 1-2 times a month, and last, around 15% respondents purchased the tickets more than 5 times a month. The respondent’s type of work was mostly dominated by public servants for 50%, private employees for 30% and students for 20%. The most traveled destinations were Yogyakarta Special Region for 45%, Jakarta for 25%, Bandung for 15%, Solo for 10%, and other destinations for 5%.

Validity and Reliability
Discrimination testing for validity in the model construct can be seen in the comparison of average variance extracted (AVE) with the squared latent variable correlation (Chin, 1998; Cool, et al., 1989). In the PLS analysis, the derived construct’s average variance extracted was 0.6543 with the threshold of 0.50, while, the Cronbach’s alpha coefficient value was 0.8669 with the threshold 0.70, and the composite reliability value was 0.9037. The items loadings were ranging from 0.7006 to 0.8831 with the threshold was 0.60 (Chin, 1998; Nunnally, 1978). The results of validity and reliability (see Table 1) showed that there were 15 indicators of electronic service quality constructs which met the validity and reliability and 14 indicators of electronic service quality constructs which were eliminated because they were invalid. Indicators from the constructs of electronic satisfaction showed 2 indicators that were invalid, thus, they were eliminated and the other 4 indicators were valid and reliable. While, indicators of electronic loyalty constructs showed 7 valid and reliable indicators.

<table>
<thead>
<tr>
<th>Item</th>
<th>Item Loadings</th>
<th>Cronbach alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>E-Service Quality (AVE= 0.419, CR = 0.9129)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ESQ10 &lt;- E-SERVQUAL</td>
<td>0.5276</td>
<td></td>
</tr>
<tr>
<td>ESQ11 &lt;- E-SERVQUAL</td>
<td>0.5559</td>
<td></td>
</tr>
<tr>
<td>ESQ12 &lt;- E-SERVQUAL</td>
<td>0.5404</td>
<td></td>
</tr>
<tr>
<td>ESQ13 &lt;- E-SERVQUAL</td>
<td>0.5725</td>
<td></td>
</tr>
<tr>
<td>ESQ14 &lt;- E-SERVQUAL</td>
<td>0.6411</td>
<td></td>
</tr>
<tr>
<td>ESQ15 &lt;- E-SERVQUAL</td>
<td>0.5928</td>
<td></td>
</tr>
<tr>
<td>ESQ16 &lt;- E-SERVQUAL</td>
<td>0.631</td>
<td>0.8976</td>
</tr>
<tr>
<td>ESQ19 &lt;- E-SERVQUAL</td>
<td>0.5227</td>
<td></td>
</tr>
<tr>
<td>ESQ22 &lt;- E-SERVQUAL</td>
<td>0.5608</td>
<td></td>
</tr>
<tr>
<td>ESQ24 &lt;- E-SERVQUAL</td>
<td>0.6538</td>
<td></td>
</tr>
<tr>
<td>ESQ25 &lt;- E-SERVQUAL</td>
<td>0.8508</td>
<td></td>
</tr>
<tr>
<td>ESQ26 &lt;- E-SERVQUAL</td>
<td>0.5505</td>
<td></td>
</tr>
<tr>
<td>ESQ27 &lt;- E-SERVQUAL</td>
<td>0.6538</td>
<td></td>
</tr>
</tbody>
</table>
Results

The analysis model measurement was shown and verified using the results of validity and reliability. The next stage was the assessment of structural models which included the estimation of path coefficients and $R^2$ using PLS. For assessing the statistical significance of the model’s path estimates, a bootstrapping method was used (Chin, 1998). Bootstrapping method provides means, t-statistics, and standard deviations for the path coefficients. The T-test value was 1960 (when $p < 0.05$, using two-tailed tests). The results of the PLS analysis are shown in Table 2.

<table>
<thead>
<tr>
<th>Table 2. Path coefficients based on PLS Analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\beta$</td>
</tr>
<tr>
<td>H1</td>
</tr>
<tr>
<td>H2</td>
</tr>
<tr>
<td>H3</td>
</tr>
</tbody>
</table>

Table 2 shows the results of PLS analysis. The results showed that the electronic service quality had a positive and significant effect on the electronic satisfaction ($H1: \beta = 0.5856, t = 10.3825, p < 0.05$), thus Hypothesis 1 or $H1$ was accepted. This finding was in accordance with the research conducted by Cheng (2011) which stated that effectiveness in the information provision quality and website services quality were the most important determining factors in deciding the consumer satisfaction. Yang & Fang (2004) also agreed with this finding that service quality is a source of satisfaction. Satisfaction is affected by online customers' expectation about quality of service in the website (McKinney, Yoon, and Zahedi 2002). Service quality occupies the first priority that must be considered by the company to create and improve the customer satisfaction.
The results showed that electronic service quality had a positive and significant effect on the electronic loyalty (H2: $\beta = 0.5486$, $t = 8.0728$, $p < 0.05$), thus Hypothesis 2 or H2 was accepted. Liang & Lai (2002) argued that the quality of website service positively affected the repurchase behavior. A positive influence between online quality service and electronic loyalty in the online environment was based on two dimensions of e-service qualifications, they are quality of provided information and quality of website service (Cheng 2011). The analysis results of e-satisfaction and e-loyalty indicated that customer e-satisfaction had a positive influence on e-loyalty. We describe e-loyalty explicitly as we purchase the service or goods and we intent to recommend the service or the goods to others. Thus, our research showed that overall e-satisfaction has a positive effect on the intention to recommend the service to others (Finn, Wang, and Frank 2009).

Consumers who have a positive electronic service quality evaluation were more likely to repurchase the products on the website (Laroche et al. 2005). Good quality services offered through a website are necessary to attract and retain the online consumers (Riel, Liljander, and Jurriëns 2001). Srinivasan et al. (2002) found that electronic service quality dimensions are considered to improve e-loyalty. The results showed the electronic satisfaction had a positive and significant effect on the electronic loyalty (H3: $\beta = 0.176$, $t = 1.9722$, $p < 0.05$) thus Hypothesis 3 or H3 was accepted. E-satisfaction has been found to be the principal antecedent of e-loyalty (Chiou, 2004). Satisfaction is an outcome which contributes to the development of consumer loyalty. Ribbink et al. (2004) indicated that satisfaction positively and directly influences the loyalty in the online business. Customer loyalty shows a strong emotional attachment and behavioral commitment toward an organization and its website regardless their satisfaction level or any other situational influences (Ko, Hur, and Valacich 2011). Customer satisfaction is generally considered as a major driver of loyalty in online settings (Gummerus et al. 2004).

5. CONCLUSION AND IMPLICATIONS

Conclusion

The analysis results showed that electronic service quality has a significant positive effect on the electronic satisfaction. This revealed that quality services provided by railway company through online media had an impact on the electronic satisfaction to the train passengers. This was in line with the research conducted by Cheng (2011) which mentioned about the utilization of electronic service quality dimensions including quality of information provision and quality of website services for measuring the customer satisfaction in terms of railway company’s website. Cheng (2011) showed how the website quality played an important role and how it was carried out for the satisfaction of customers in online setting. It means that it provided the tools on how customers find information and do transactions with the least amount of effort.

The provision of transportation information on website should include the ability to easily find the published schedule, seat selection, fares, how to buy an online ticket, online payment and some information about promotion (Cheng 2011). On other hand, Cheng (2011); Parasuraman, et al. (2005); Cristobal et al. (2007) also showed that the quality of website service enhances the customer satisfaction in online environment. Cristobal et al. (2007) stated that website often collects a variety of sensible and personal information from their users in order to understand and provide a service for its users. Accordingly, privacy and security features have become a serious concern these days. However, some merchants have frequently applied some measures to protect and guarantee the customer’s personal information, put their terms and conditions in the website including on how this personal
information is promised to be guarded to earn a trust from the customers and protect the reputation of organization as well.

Meanwhile, the quality of website service dimensions including the provision of contact along with problem solving capability, a willingness of personnel to help, a prompt answer to any inquiry area determinant of electronic satisfaction (Cristobal, Flavián, and Guinaliu 2007). Interaction between users and service providers’ employees or users and the website is considered as the important factor in online business. In the case of railway company, it is because passengers may still expect to receive the personalized or customized services from a knowledgeable, responsive, and caring contact person. Thus, our results indicated that the positive result of customer perception was quite different between what they expect from the quality of (website and e-business) services and what they perceived as the direct influence on customer e-satisfaction.

Table 2 shows the positive and significant influence of electronic service quality on electronic loyalty. This was in line with the research conducted by Liang & Lai (2002) which argued that the quality of website service positively affected the repurchase behavior. A positive influence between online quality service and electronic loyalty in railway business was based on two dimensions of e-service quality, they are quality of transportation information provision and quality of website service (Cheng 2011). Consumers who have a positive service quality evaluation are more likely to repurchase the products on the website (Laroche et al. 2005). Good quality services offered through a website are necessary to attract and retain the online consumers (Riel, Liljander, and Jurriëns 2001). Srinivasan et al. (2002) found that electronic service quality dimensions are considered to improve e-loyalty.

Table 2 also shows the positive and significant influence of electronic satisfaction on electronic loyalty. This was in line with the research conducted by Balabanis et al. (2006) and Semeijn et al. (2005) which found that there is positive relationship between e-satisfaction and e-loyalty. Customer satisfaction is highly related to the futurepurchase intentions (Patterson, Johnson, and Spreng 1997). Bansal et al. (2004) explored the relationship between (1) e-satisfaction and customers’ stated purchasing behavior and (2) actual browsing behavior. Moreover, a customer which experience a good rate of e-satisfaction tends to have a higher utilization of website service, a stronger repurchase intention, and an eagerness to recommend the service to her/his acquaintances. In addition, since the research was only conducted on train website and its passengers, future studies should focus on investigating the proposed model on different transportation websites, such as an airline website. Also, because this survey was conducted for the characteristics of all ages, further research can be focused only on a certain age, such as the generation of Z, in order to confirm the validity of the model.

**Implications**

Website developers and decision-making managers should ensure that the website back-end (system quality) is capable of providing the prompt, complete and secure transactions along with replies to customer queries (e-business). Railway company’s website is powerful tool designed to attract new customers to railway company, as well as to retain the loyalty of existing customers. To reach this goal, a proper development of a website considering both quality aspects of E-SERVQUAL is significantly helpful.

As this research is also applicable to the airline companies, a high-quality website will help improving the airline companies’ strategic goals, both for the short-term and long-term. For the short-term, the airline company can gain some benefits, such as the increase of e-ticket purchases on the website, which can also improve the financial rates. In the long-term, an airline company may achieve superior performance, such as delivering a better e-service to customers, keeping the customers loyal to the airline company by purchasing e-ticketing on
the website, enhancing its competitiveness with other airline companies and maintaining its position in the market.

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Price-Earnings Multiple as an Investment Assessment Tool in Analyzing Stock Market Performance of Selected Universal Banks in the Philippines

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Abstract

Price-Earning Ratio or P/E Multiple is a widely used, straightforward investment assessment tool in developed countries. However, the method has not been utilized as much in stock market performance analysis in developing countries such as the Philippines. Using the top ten universal banks in the country, this paper utilized Price-Earnings Ratio (PER) as valuation tool and dependent variable, and sought to determine its value drivers. Used as independent variables are macroeconomic variables GDP growth rate, inflation rate, annual interest rate; stock market index Philippine Stock Exchange (PSEi); and firm-specific variables return on equity (ROE), growth rate of ROE, growth rate of earnings per share, dividend payout ratio (DPO), growth rate of income, and price-book value (PBV) ratio. Results showed that among the independent variables, ROE, PBV ratio, and PSE index are statistically significant. The model’s ($R^2$) is 63.7%, which is a fairly good fit.

Keywords: price-earnings ratio, universal banks, stock valuation, bank valuation, valuation tools

1. INTRODUCTION

Business evaluation is an important tool in overcoming economic and financial crisis (Tabara & Vasiliu, 2011). Business evaluation techniques are needed because the value of an enterprise is changing over time depending on the following aspects: existence of free prices leading to changes in the internal information available to the management of an enterprise in charged with making economic decisions; fluctuations in the exchange ratio, meaning changes in the value of all goods provided and in effect, the value of the total enterprise; internal management of each company in terms of depreciation and accounting policies may lead to changing value of enterprise; Chief Executive Officers (CEOs) experiences in terms of staff motivation, employees competence, the strategy applied, the company management
structure, size and quality of assets held and used. This makes valuation a highly complex endeavor.

Universal banks play vital roles in economic development because aside from deposit and lending services rendered, other financial services make it possible for businesses and industries to grow. These banks have the components of retail, wholesale, and investment banking that makes transactions more convenient under one roof even if such banks are not necessarily compelled to do so. According to Schildbach (2012), universal banks are recognized to be significantly contributing to a country’s financial stability for the following reasons: a) ability to maintain resiliency because of diversified sources of revenues, assets, and liabilities; b) ability to achieve higher profitability due to revenue and cost synergies; c) has greater transparency that helps lower counterparty risks; d) can early detect accumulating systemic risks; and e) can better deal with mismatches in loan-deposits. In effect, investors’ trust and confidence in universal banks are higher, compared to typical investment banks. In the Philippines, commercial banks are classified as universal banks, and occupy a huge portion (about 90%) of the country’s banking system’s resources (International Trade Administration, 2017).

Pandey (2015) posited that all assets—whether financial or real—can be valued, but the complexities and the details of valuation will vary from case to case. Some analysts used discounted cash flow (DCF) models to value shares, while others used price multiples such as the price-earnings and price-book value ratios. Technical analysts believed that prices were driven as much by investor psychology as by any underlying financial variables. This paper focuses on financial and macroeconomic variables that drive price-earnings ratio (PER) valuation as an important investment tool. PER is mostly used in fundamental analysis of listed and unlisted firms in equity valuation endeavors (Maniar, 2014).

Price-Earnings Ratio (PER) or P/E Multiple is a commonly utilized stock valuation method frequently mentioned in related research papers, academic journals, and on-line articles. It is utilized in "fairness of opinions" among investment bankers in initial public offerings, and a standout amongst the most helpful money related markers for stock valuation. This paper alternately uses the term PER and P/E Multiple to mean one and the same thing.

PER indicates how much investors are willing to pay for each currency unit of a firm’s earnings. It also reflects investor’s confidence and sentiment about a firm’s future performance and influences investment decisions. The share price and the earnings of PER are themselves influenced by accounting inherent factors and fundamental factors. Premkanth (2013) suggested that comparison of price-earnings ratio over time is meaningless unless changes in the underlying fundamental determinants of PER are taken into account.

PER is additionally utilized in valuations related to corporate exchanges. For example, the board uses it to formulate strategies in acquiring required subsidies for the organization. PER method enables speculators make forecast on what would firms’ future exhibitions may resemble (Afza and Tahir, 2012). In that capacity, PER is one of the proportions used in relative valuation strategies to decide if a specific firm is exchanging higher or lower than its peers (Larsen, Fabozzi and Gowlland, 2013).

PER was found to yield highly accurate valuation performance compared to other multiples in the plantation sector of Bursa Malaysia from 2003 to 2009, when ROE is used as a control factor (Fei, 2011).

PER is utilized to make proposals to purchase, hold, or move stocks. Certain stocks with low PE ratios when contrasted with their peers are seen to be underestimated. Firms having higher PE proportions are considered to have noteworthy prospects for development (Hillier, Ross, Westerfield, Jaffe and Jordan, 2010). It shows along these lines whether a stock is less expensive or costly: less expensive stocks are the more profitable ones.
The ubiquity of PER lies in the effortlessness of its strategy as it speaks of just a proportion of a market value variable (e.g., stock cost) to a specific significant driver (e.g., profit) of a firm. Contrasted with complex valuation methods, it requires fewer presumptions. In spite of the effortlessness in its methodology, PER requires organized procedures and comprehension of significant drivers of products connected. Except if these two zones are appropriately tended to, the PER methodology may result to lacking valuations. In light of its popular use in most exchanges and examinations led by experts, surviving investigations on these two regions do not give sufficient experimental discoveries, particularly in creating capital markets for the Philippines.

Abbreviations Used and Definition of Terms

- ATO – Asset Turnover
- BSP – Bangko Sentral ng Pilipinas
- DCF – Discounted Cash Flow
- DPO – Dividend Payout
- EPS – Earnings per Share
- FCFE – Free Cash Flow on Equity
- GDP – Gross Domestic Product
- NYSE – New York Stock Exchange
- PBV – Price-Book Value
- PER – Price-Earnings Ratio
- PSA – Philippine Statistics Authority
- PSE – Philippine Stock Exchange
- ROA – Return on Assets
- ROCE – Return on Capital Employed
- ROE – Return on Equity
- SPSS – Statistical Package for the Social Sciences
- Pearson Correlation – a statistical measure of relationship between two variables ranging from -1 (strong negative correlation) to +1 (strong positive correlation)
- P/PeakE – Price-Peak Earnings Multiple, an alternative measure of PER by which the current share price is divided by the highest earnings per share achieved over a specific period.
- Tobin’s Q – the ratio of a firm’s assets’ market value over its replacement value

Theoretical Framework

Price-Earnings Ratio is calculated as the ratio of share market price over earnings per share. One of the theories this research is grounded to is the efficient market hypothesis, considered to be one of the cornerstones of modern asset pricing for the past 50 years (Fakhry, 2016). One of the most important assumptions of the hypothesis is that no investor may have extraordinary returns using any information (Bayraktar, 2012). The price of securities completely reflects all the existing information in the market; therefore, no investor would obtain differentiated returns.

Efficient market hypothesis explains important characteristics of the stock market and these are (Koller, Goedhart, and Wessels, 2010):
• Share prices more or less are aligned with intrinsic value since informed investors are the market price setters and its boundaries;
• Boundaries for share prices either in the lower or upper limit of the intrinsic value becomes wider when there is uncertainty in the stock’s valuation;
• When no new information about the firm has been revealed, share prices can be highly volatile but within the bounds of the limits set by informed investors;
• Deviations in price outside the boundaries set by informed investors using intrinsic valuation happen only in rare situations, such as when informed investors were outnumbered or when institutional barriers hamper selling the stocks.

One of the advantages of using multiples (e.g. PER) is, it assumes the efficient market hypothesis implicitly, and expected future cash flows and discount rates that are market-estimated are indirectly utilized (Kim, 2015). Because of this advantage, estimation of future cash flows and discount rates were able to minimize substantial estimation errors, making multiples be one of the favored valuation models in practice (Kim, 2015).

The dividend discount model is a valuation theory that looks into growth rate as an important determinant of stock price. This is the oldest valuation model in practice, and the underlying principle is that when investors buy stocks in publicly listings, cash flows from dividends during the holding period and anticipated price at the end of the holding period are expected (Damodaran). In its most basic form, the formula for Price at the end of the period is given in the following form (Welc, 2011):

\[ P_t = \frac{D_t(1+g)}{(r-g)} \]

where: \( P_t \) = price of the stock at the end of the period
\( D_t \) = Dividends at the end of the period
\( g \) = growth rate
\( r \) = discount rate

Penman (1997 cited in Welc, 2011) posited that substituting accrual earnings to cash flows improved accuracy of valuation, therefore, substituting dividends with earnings will change the form to:

\[ P_t = \frac{E_t(1+g)}{(r-g)} \]

Dividing both sides of the equation by earnings at time t (\( E_t \)) will give PER to be equal to \( (1+g)/(r-g) \). This makes growth rate to be an integral component of PER.

In order to maximize shareholders’ value, firms need to identify growth drivers and what makes it create value (Koller, Goedhart, and Wessels, 2010). High growth and how it would be sustained is a challenge because innovations have to be introduced in product life cycles.

2. LITERATURE REVIEW

Review of Past Literatures

The study of Sehgal and Pandey (2010) was on the use of alternative price multiples for equity valuation of 145 companies in 13 sectors listed in Bombay Stock Exchange from the period 1990–2007. Using two forecast evaluation criteria and Theil’s inequality coefficient, the study showed that among three value drivers that were regressed to historical prices as
independent variable, price earnings is the best price multiple in developing price forecasts in the Indian context (Sehgal and Pandey, 2010).

The study of Rostan and Rostan (2012) showed that PER is a better predictor of financial and market performance of firms compared to Customer Satisfaction index. This conclusion was made on selected five financial and seven market indicators considered as proxies for financial and market performances of eighty-five companies in the S&P 500 index (Rostan and Rostan, 2012).

GDP growth rate is a measure of economic growth. In a Forbes article written by Ferri (2012), the author stated that PER appears to contract when economic growth is slowing, and expands when GDP is expected to expand or grow and inflation is over 6 percent. This analysis was made on a 10-year rolling correlation of GDP growth with P/PeakE, by lagging the latter by 1 year to allow how current valuations are impacted by GDP growth anticipations the next year.

The study of Murcia (2014) included macroeconomic variables and the stock market index PSEi as factors that drive the performance of the Philippine Stock Market, while the inclusion of company fundamentals as value drivers were identified in the study of Dawar (2012) on stock pricing of the automotive sector in India.

Yuanlong (2012) examined a firm’s forward PER relative to EPS growth rate and positive correlation between the PE ratio and the firm’s short-term expected earnings growth rate was found.

Markuson (2012) made a study on the valuation of a public bank using a banking institution in Spokane Washington known as Sterling Financial Corporation, and methods used were relative and discounted cash flow valuation. According to the study, 85% of equity research analysts use relative valuation, with price to book value (PBV) as the most commonly used multiple valuations for financial institutions (Markuson, 2012). Interestingly, PER or P/E multiple was not among the chosen valuation method for this bank.

A macro-economic factor involved in determining PER is inflation. Inflation is defined as a sustained increase in the general level of prices for goods and services. It is measured as an annual percentage increase (Farooq & Ahmed, 2017). PER tends to expand when interest rates and inflation decrease while it contracts if otherwise (Clarke, 2014). Given that inflation leads to higher variability in prices, it becomes hard for economic agents to detect relevant information from prices (Hsu, Kudo, Yamada, 2013). Basu et al. (2010) showed that expected inflation information was not fully incorporated by analysts in their forecasts.

In the context of the mispricing (either undervalued or overvalued) view, PER is contrarily identified with portfolio stock returns. In particular, stocks with low PER procure higher returns than stocks with high PER, suggesting that investors could gain higher returns by putting resources into low PER portfolios. Basu (1977, cited in Thalmann, 2016) presented this recommendation and did experimental research to test the theory. The research found that low PER portfolios procure predominant hazard balanced returns while utilizing the New York Stock Exchange or NYSE mechanical firms between September 1956 to August 1971. Basu (1983, cited in Thalmann, 2016) improved his past research and found that high earning (low PER) stocks earned altogether more serious hazard balanced returns even in the wake of controlling for firm size.

A systematic literature review made by Plenborg and Pimentel (2016) identified choice of comparable firms as among the implementation issues on the use of multiples valuation method.

Profitability is one indicator for evaluating firm performance. Profitability measures are fundamental to multiples when measuring risk and return (Pétursson, 2016). Amongst profitability indicators are: return on equity or ROE, return on asset or ROA, asset turnover (ATO) and so forth. In an examination of the association between forward PER and
profitability, the study of Wu (2014) observed that there exists a U-shape relationship between forward PER and ROE. Moreover, the study shows that firms having high PER tend to have lower ROE in the following years. Similarly, the study by Premkanth (2013) on sample of 30 companies listed on the Colombo Stock Exchange over the period 2007-2011 showed that ROE impact negatively on PER, but not sufficient to explain PER. Sezgin (2010) observed unidirectional Granger’s running from ROE to PER.

The study of Maniar (2014) revealed highest correlation to exist between price-to-book value or PBV multiple and Return on Capital Employed or ROCE, followed by ROE and PBV multiple. ROE and ROCE are measures of capital efficiency and hence could be a proxy for how two companies with same amount of net worth could be differentiated (Maniar, 2014).

The study of Deev (2011) was on common bank valuation models that included the following approaches: asset-based, market-based, income-based, and contingent claim valuation. Asset-based valuation was used to determine the liquidation value of a bank during legal proceedings, however, this approach is difficult to use when the banks widens its range of services (Deev, 2011). Market-based approach was the simplest method because of the availability of data, reports, and experts’ opinions where comparison of multiples can be made, and the most sufficient multiples for valuation of banks are PER and PBV (Deev, 2011). There are three variables that influence banks’ PER: dividend payout (DPO) ratio, earnings growth rates, and cost of equity (Deev, 2011). The income-based approach looks into the present value of future economic benefits, with free cash flow on equity or FCFE to be highly valid for valuation of banks, and dividend discount model (DDM) to be another form valuation (Deev, 2011). Contingent claim valuation such as binomial and the Black-Scholes-Merton models can be used for valuation of banks (Deev, 2011).

The study of Gounder and Venkateshwarlu (2017) compared residual income model and relative valuation model as methodologies for bank valuation using 40 listed public and private banks operating in India within the study period of 2001~2015. The study concluded that residual income model is more appropriate in value determination for banks’ shareholders’ value, using correlational analysis and regression (Gounder and Venkateshwarlu, 2017). PER is one of the tools for relative valuation model, and the researchers pointed out that one of the limitations of relative valuation is, it cannot be utilized for future oriented decisions because it is based on current market data (Gounder and Venkateshwarlu, 2017).

The study of Forte, Gainfrante, and Rossi (2018) looked into the suitability of stock multiples in valuation of banks in the US and Europe. The study showed that multiples are less accurate for small commercial banks compared to large ones, and for investment banks compared to retail banks. Moreover, PER loses its predictive ability when compared with historical multiples. The research findings also concluded that multiples for US banks are more accurate than that of multiples for European banks.

The study of Shaalan (2018) proposed a model for commercial bank valuation using data of listed commercial banks in Bahrain Stock Exchange. The study resulted in identifying independent variables that influence the intrinsic value of commercial banks and these were operational efficiency, bank adequacy, size of assets, and ROE (Shaalan, 2018).

A similar study made by Dutta, Saha, and Das (2018) on the determinants of PER of selected manufacturing companies in Dhaka Stock Exchange showed ROE, dividend yield, earnings growth, and Tobin’s Q to negatively impact PER. These variables were not statistically significant since p-values are greater than 0.05.

The study of Jitmaneeroj (2015) looked into the relationship between PER and dividend policy. Using fixed effects panel regression method for data comprised of industries in the United States from 1998 to 2014, the study showed that when ROE is greater than the
required rate of return, PER and dividend payout ratio are negatively correlated while displaying positive convexity (Jitmaneeroj, 2015). The study recommended that the convex relationship between PER and dividend payout ratio should be considered to avoid premature conclusion that PER is positively related to dividend payout ratio (Jitmaneeroj, 2015).

A study conducted on 47 non-financial firms listed at the Nigerian Stock Exchange used quantile and pooled regression models, and found that dividend pay-out ratio is statistically significant to influence P/E ratio at the 25th, 50th and 75th percentiles. At the 25th percentile, dividend per share has significant but negative impacts on PER while dividend pay-out ratio and total dividend paid has positive significant impacts on PER. At the 50th percentile, dividend pay-out ratio has significant and positive impacts on PER while dividend per share has significant but negative influence on PER. At the 75th percentile, dividend pay-out ratio and average share price has positive and significant effects on P/E ratio (Emudainohwo, 2017).

The study of Azam (2010) focused on 35 dividend-paying firms listed at the Karachi Stock Exchange for 2000 to 2008, and explored the effect of dividend payout ratio on PER. Regression results showed that dividend payout ratio had a significant positive relationship with P/E ratio. However, the study of Khan, Naeem, Rizwan and Salman (2016) contradicted this result, and claimed that ROE has no impact on PER.

Isidro and Grilo (2014) looked into value drivers of banks in the Eurozone using accounting-based valuation models, and the study identified salient characteristics of the model which are: development of correlation between free cash flows from fees on income and bank value based on lending and borrowing activities; and proprietary investment and trading activities as value drivers. It was found that proprietary investment and trading of financial assets are significant income-generating sources of banks that are diversified (Isidro and Grilo, 2014).

Synthesis of the Literatures Reviewed

It is for this reason that the researcher felt the need to conduct a thorough study on Price-Earnings Multiple as an investment assessment tool. Literatures reveal that PER has been useful in analyzing stock performance, and with seemingly similar conclusions. For example, the study of Clarke (2014) concluded that P/E multiple tend to expand when the interest rates and inflation decrease, and contracts if otherwise. Moreover, multiples that are composite equity-based are found to provide more accurate valuations compared to optimal equity-based single-factor multiples (Nel and Le Roux, 2017). Most of the studies are on selected firms in stock exchanges and appears to be in varied industries. No notable studies that explored PER as valuation tool for firms of specific industries were found, and the basis of choosing the banking industry was rooted on Plenborg and Pimentel (2016). Moreover, the studies of Sehgal and Pandev (2010), Rostan and Rostan (2012), and Homes and Chira (2014), confirmed the superiority of PER as valuation tool. Similar local studies focused on PER drivers using a combination of various industries but none has been found for specific industries.

Statement of the Problem

At present, there is a low turnout of published studies on this area, especially in developing countries such as the Philippines. To the best knowledge of the author, no study has identified and evaluated price-earnings ratio value drivers, both along macroeconomic and firm-specific levels.
Objectives of the Study

Generally, this study aims to identify significant value drivers of PER of universal banks in the Philippines on the macroeconomic and firm levels. Universal banks were chosen as sources of data because of their significant role in the Philippine economy and the banking system in general. Selection of variables was mainly taken from literatures reviewed, and grounded on theories presented in the theoretical framework. The choice of the variables interest rates and inflation were derived from the studies of Clarke (2014), Farooq & Ahmed (2017), and Hsu, Kudo and Yamada (2013), while ROE, ROA, and other profitability measures were taken from the studies of Premkath (2013), Sezgin (2012) and Dutta, Saha, and Das (2018). The inclusion of dividend payout ratio as one of the variables was taken from Azam (2010), Emudainohwo, (2017), while challenging the inverse relationship between the two as posted by the study of Khan, Naeem, Rizwan and Salman (2016). The choice of ROE growth rate to be included in the model was derived from the study of Pettersen (2011). The influence of GDP growth rate was taken from Ferri (2012) while earnings growth rate as one of the variables was from Yuanlong (2012). The choice of PBV was from the study of Markusson (2012) on financial institutions as the most commonly used multiple valuation, as well as that of Maniar (2014) on the correlation of PBV and ROE. The combination of companies’ financial fundamentals and macroeconomic variables as possible drivers of PER was derived from the studies of Murcia (2014), and Dawar (2012).

Conceptual Framework

Figure 1. Conceptual Framework

Figure 1 shows the conceptual framework followed in this study to identify the possible determinants used as inputs that drive PER. Following the input-process-output model, the value drivers are the inputs, then processed using multiple regression to produce a model for price-earnings ratio for universal banks in the Philippines.

3. RESULTS AND DISCUSSION
Research Method

The study employs multiple regression data analysis. This approach is essential in establishing the theoretical foundation of this study especially the development of the valuation model. Multiple regression uses the following form:

\[ Y_{it} = \alpha_i + \beta_1 X_{i1} + \beta_2 X_{i2} + \beta_3 X_{i3} + \ldots + \beta_t X_{it} \]

Where: \( y_{ij} \) is the outcome variable (or dependent variable) for a particular \( ij \) case

- \( \beta_n \) are the regression coefficients
- \( x_{ij} \) are regression predictors or independent variables
- \( \alpha_i \) is the intercept or constant.

Subjects and Study Sites

Bangko Sentral ng Pilipinas (BSP) regulates forty-four (44) banks in the country, twenty-one (21) of which are universal banks. Among these, ten (10) universal banks listed in the Philippine Stock Exchange were utilized because these banks account for 93% in terms of capitalization of banks listed in PSE. Universal banks in the Philippines have been resilient in spite of global challenges that affected financial markets in the past such as the fall of the Lehman Brothers, the Great Tsunami in Japan, and political unrest in the Middle East (Bangko Sentral ng Pilipinas, 2011).

The period for this study was from 2010 to 2017. All data are secondary in nature and were collected from the financial statements of the selected companies. Macroeconomic variables were also considered in this study as these impact banks’ performance. The names of the banks were not indicated in this study for confidentiality. Instead, the banks’ identities were labeled as bank 1, bank 2, ..., and so forth.

Research Instruments/Data Measure

As mentioned, secondary data was used in this study. The data on firm specific variables were generated from the Annual Reports of the selected universal banks. The PSE website was the source of information for market price per share and earnings per share to determine the P/E ratio. Moreover, the BSP was the basis in getting the complete list of the banks in the country, particularly the roster of the universal banks. For macroeconomic factors, data was collected from the Philippine Statistics Authority (PSA) database – a compilation of the measures of gross domestic product, inflation rate, and annual interest rate.

Description of the Variables Used

The dependent variable is Price Earnings Ratio or PER and is measured as the ratio of the share’s current market price over earnings per share.

The independent variables are:

- **Net Income Growth Rate**: This is the percentage change in net income and is calculated as the ratio of the difference between previous period and current period net income over the previous period’s net income.
- **Price to Book Value (PBV) Ratio**: This is the ratio of the share’s current market price over the book value per share.
- **Dividend Payout (DPO) Ratio**: This is the ratio of dividends paid over net income.
- **EPS Growth Rate**: This is the percentage change in earnings per share and is calculated as the ratio of the difference between previous period and current period earnings per share over the previous period’s earnings per share.
- **Return on Equity (ROE)**: This is a portion of net income relative to shareholders’ equity.
ROE growth rate: This is the percentage change in earnings per share and is calculated as the ratio of the difference between previous period and current period earnings per share over the previous period’s earnings per share.

PSEi: This is the index provided by the Philippine Stocks Exchange on a yearly basis.

GDP Growth Rate: This is the percentage change in gross domestic product or GDP and is calculated as the ratio of the difference between previous period and current period gross domestic product over the previous period’s gross domestic product. Gross Domestic Product was taken from the Philippine Statistics Authority.

Inflation rate and Interest Rate: This is provided by the BSP and PSA.

Statistical Treatment of Data

Descriptive Statistics. The characterization of each variable was determined using mean and standard deviation. In addition, correlation analysis of companies’ PER and value drivers, Pearson R correlation was calculated to find out the inter-relationship between variables such as macroeconomic factors, stock market indices, and firm specific variables.

Multiple Regression. Considering the individuals (banks) and time specifications (eight-year period from 2010-2017), a multiple regression analysis was used in determining the impact of the independent variables, and develop a relevant model utilizing the identified value drivers. Before conducting the regression analysis, various tests were conducted to satisfy the assumptions under this approach. These assumptions include normality of distribution, linearity, existence of possible outliers. Goodness-of-fit Kolmogorov-Smirnov test was performed to inspect whether samples obey the normal distribution and the uniform distribution of the P/E ratio. A histogram was shown to present the normal distribution of PER. Variance Inflation Factor was utilized to confirm issues with multicollinearity. Mahalanobis distance test was executed to determine outliers among the samples.

Results and Analysis

Descriptive Statistics

**Table 1.** Descriptive Statistics

<table>
<thead>
<tr>
<th>Statistic</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>PER</td>
<td>80</td>
<td>0.5822</td>
<td>25.5452</td>
<td>11.7374</td>
<td>4.7095</td>
<td>22.1795</td>
</tr>
<tr>
<td>ROE</td>
<td>80</td>
<td>0.0555</td>
<td>0.2818</td>
<td>0.1211</td>
<td>0.0390</td>
<td>0.0015</td>
</tr>
<tr>
<td>ROE Growth Rate</td>
<td>80</td>
<td>(0.5095)</td>
<td>1.4293</td>
<td>0.0358</td>
<td>0.2795</td>
<td>0.0781</td>
</tr>
<tr>
<td>EPS Growth Rate</td>
<td>80</td>
<td>(0.9237)</td>
<td>1.5938</td>
<td>0.0871</td>
<td>0.3308</td>
<td>0.1094</td>
</tr>
<tr>
<td>DPO Ratio</td>
<td>80</td>
<td>0</td>
<td>1.0651</td>
<td>0.2587</td>
<td>0.2295</td>
<td>0.0527</td>
</tr>
<tr>
<td>PBV Ratio</td>
<td>80</td>
<td>0.5486</td>
<td>3.7640</td>
<td>1.4824</td>
<td>0.6877</td>
<td>0.4729</td>
</tr>
</tbody>
</table>
Table 1 shows the descriptive statistics of the dependent and independent variables. The mean PER is 11.737 and is satisfactory since the data follows a normal distribution (based on the results of the one-sample KS test presented in Table 3). The standard deviation is quite high, indicating some levels of variability in the data. This means that banks’ PER are independent of each other’s performance. Other variables have fairly less variability exhibited.

**Correlation Matrix**

**Table 2. Correlation Matrix**
Table 2 shows the correlation coefficients of each variable relative to other variables using Pearson Correlation. Most of the variables are weakly correlated except for PBV ratio and PER with a value of 0.6. This is expected since the same market share price is used. Similarly, ROE growth rate and EPS growth rate are strongly positively correlated at 0.7 because earnings per share are related to net income. Net income growth rate is positively correlated with ROE growth rate and EPS growth as these growth rates refer to the same net income. Even with several levels of positive correlation, the following assumption tests to proceed with multiple regression were still met. Linearity is observed among pairs of variables with asterisk (*).

Table 3. Kolmogorov-Smirnov Test

<table>
<thead>
<tr>
<th>Tests of Normality</th>
<th>Kolmogorov-Smirnov(^a)</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Statis df Sig.</td>
<td>Statis df Sig.</td>
</tr>
<tr>
<td><strong>P</strong> ER</td>
<td>.052 80 .200* .991 80 .859</td>
<td></td>
</tr>
</tbody>
</table>

\* This is a lower bound of the true significance.

\(a\). Lilliefors Significance Correction

Figure 2. Histogram Chart

Table 3 shows the normality of distribution that was determined by testing the null hypothesis that the data is normally distributed. If the p-value using Kolmogorov-Smirnov test is less than 0.05, then the null hypothesis is rejected. Our data showed that p-value is
0.200 (p > 0.05) therefore we accept the null hypothesis that the dependent variable is normally distributed. Figure 2 shows the histogram chart depicting the distribution of the data and confirming normality of distribution.

**Test for Multicollinearity**

**Table 4. Variance Inflation Factor (VIF)**

<table>
<thead>
<tr>
<th>Model</th>
<th>Coefficients</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unstandardized Coefficients</td>
<td>Standardized Coefficients</td>
</tr>
<tr>
<td>(Constant)</td>
<td>1.6</td>
<td>.20</td>
</tr>
<tr>
<td></td>
<td>79</td>
<td>8.397</td>
</tr>
<tr>
<td>ROE</td>
<td>-</td>
<td>-3.34</td>
</tr>
<tr>
<td></td>
<td>40.018</td>
<td>3.590</td>
</tr>
<tr>
<td>ROE Growth Rate</td>
<td>-</td>
<td>-0.083</td>
</tr>
<tr>
<td></td>
<td>1.393</td>
<td>.606</td>
</tr>
<tr>
<td>EPS Growth Rate</td>
<td>-</td>
<td>-0.094</td>
</tr>
<tr>
<td></td>
<td>1.322</td>
<td>.547</td>
</tr>
<tr>
<td>DPO Ratio</td>
<td>1.9</td>
<td>.97</td>
</tr>
<tr>
<td></td>
<td>59</td>
<td>8</td>
</tr>
<tr>
<td>PBV Ratio</td>
<td>4.0</td>
<td>6.7</td>
</tr>
<tr>
<td></td>
<td>.98</td>
<td>.97</td>
</tr>
<tr>
<td>Net Income Growth Rate</td>
<td>2.4</td>
<td>2.471</td>
</tr>
<tr>
<td></td>
<td>27</td>
<td>.166</td>
</tr>
<tr>
<td>PSE index</td>
<td>.00</td>
<td>.336</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>.336</td>
</tr>
<tr>
<td>Inflation Rate</td>
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<td>.04</td>
</tr>
<tr>
<td></td>
<td>.5</td>
<td>.09</td>
</tr>
<tr>
<td>GDP Growth Rate</td>
<td>-</td>
<td>-0.014</td>
</tr>
<tr>
<td></td>
<td>.057</td>
<td>.148</td>
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<tr>
<td>Interest Rate</td>
<td>-</td>
<td>-0.022</td>
</tr>
<tr>
<td></td>
<td>.092</td>
<td>.122</td>
</tr>
</tbody>
</table>

a. Dependent Variable: PER

Table 4 shows variables with VIF values less than 10 that are considered acceptable for absence of multicollinearity. Except for inflation rate, the rest of the variables were considered in the regression analysis. Since inflation rate’s VIF is 10.3, this researcher decided to still include this variable since it is a little close to 10, and several literatures such as the studies of Clarke (2014), Farooq & Ahmed (2017), and Hsu, Kudo and Yamada (2013), demonstrated the importance of inflation rate as one of the value drivers of PER.

**Mahalanobis Distance Test for Outliers**

One outlier was found in the Mahalanobis distance test: Bank 4 for 2010 with Prob_MAH of 0.0003. Values of Prob_MAH that are less than 0.0001 are advised to be removed from the data set prior to running the inferential analysis (Statistics Solutions). This was removed in the final data set for the multiple regression analysis.

**Multiple Regression Results**

**Table 5. Model Summary**
Table 5 shows the multiple regression model summary using Statistical Package for the Social Sciences (SPSS) version 23 that was run to predict PER and as shown, the multiple correlation coefficient $R$ is 0.898 or 89.8%. This result indicates a good level of prediction. The coefficient of determination $R^2$ explains the proportion of variance in the dependent variable PER that can be explained by the independent variables. The value is 0.637 or 63.7%, which means that the independent variables explain 63.7% of the variability in the dependent variable PER.

Table 6. Analysis of Variance Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>10</td>
<td>106.567</td>
<td>11.91</td>
<td>.000</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>68</td>
<td>8.943</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>78</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 6 shows the ANOVA summary result and describes the overall fit of the regression model, and at $F(10,68) = 11.916$, $p (0.000)$ is less than 0.05 which means that the regression model is a good fit for the data.

Table 7. Coefficients of Regression

<table>
<thead>
<tr>
<th>Model</th>
<th>Std. Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>1.0</td>
<td>8.308</td>
<td>.132 .89</td>
</tr>
<tr>
<td>ROE</td>
<td>45.086</td>
<td>10.986</td>
<td>-.375</td>
</tr>
<tr>
<td>ROE Growth Rate</td>
<td>1.108</td>
<td>2.287</td>
<td>-.056</td>
</tr>
<tr>
<td>EPS Growth Rate</td>
<td>2.386</td>
<td>-.082</td>
<td>.57</td>
</tr>
</tbody>
</table>
Table 7 shows the coefficients of regression with ROE (p=0.000), P/B ratio (p=0.000), and PSE index (p=0.009) to be the variables that are significant in the regression equation. ROE significantly reduces PER while PBV ratio, net income growth rate, and PSE index significantly increase PER. The rest of the variables’ coefficients do not have statistical significance. Therefore, to predict PER at time t, the regression equation is:

\[
\text{PER}_t = 1.099 - 45.086 \times \text{ROE} - 1.108 \times \text{ROE Growth Rate} - 1.34 \times \text{EPS Growth Rate} + 3.120 \times \text{DPO Ratio} + 4.146 \times \text{PBV Ratio} + 4.184 \times \text{Net Income Growth Rate} + 0.001 \times \text{PSE index} + 0.179 \times \text{Inflation Rate} + 0.026 \times \text{GDP Growth Rate} + 0.024 \times \text{Interest Rate}
\]

Variables that resulted to statistical insignificance but nevertheless contributed to the regression model are DPO ratio, net income growth rate, ROE growth rate and EPS growth rate.

### 4. CONCLUSION AND RECOMMENDATIONS

The study confirmed that value drivers depend on short-term and long-term performance. The panel regression analysis showed that important value drivers for PER of universal banks in the Philippines are ROE, P/B ratio, and PSE index. ROE negatively impacts PER, and this is similar to the findings of Premkath (2013) and Dutta, Saha, and Das (2018). However, this study’s result showed that ROE is statistically significant, while in previous studies, ROE is not statistically significant. Net income growth rate and EPS growth rate positively influence PER, and is consistent with the study of Yuanlong (2012). The inclusion of PBV ratio as a significant value driver is concluded to be an added feature of this regression model for PER of universal banks, while as expected, PSE index influences PER because stock markets dictate prices of stocks. In terms of valuation, share prices inclined to be in line with intrinsic value because investors that have access to full information will ultimately set the boundaries of price in the market.

This study confirmed other findings that macroeconomic variables do not significantly impact PER and for future researches, it is recommended other macroeconomic variables that would have statistical significance to PER be discovered. Although the model has a good
coefficient of determination, finance professionals and researchers can further improve this model by introducing new macroeconomic variables and company fundamentals (combining both financial and non-financial metrics), of similar industries, or even other relevant industries. In addition, this study yielded the same results as other studies that ROE negatively impacts PER. It is recommended that more research be conducted to determine why ROE has a negative impact on PER. The period after the global financial crisis is the best time frame for any related study because most of the economies and financial markets in the world are recovering. Including data that covers 2007-2009 may introduce some “noise” in the model and may not be suitable in the current finance environment.

Emerging market valuations are complex and applicability of valuations depend on information available. There is a need to create some consistent set of macroeconomic assumptions that depend on the type of industry. A distinct characteristic that differentiates emerging markets and developed markets is, the former has higher levels of risk. Universal banks are complex to value because these entities engage in wide range of activities. These banks have many revenue generating resources in the form of interest income, and this would ultimate affect company fundamentals. The diversity and cyclicity of universal banks makes valuation a sensitive undertaking. The use of PER multiples can also demonstrate flaws, and the development of a carefully designed PER model can assist in providing insights about the firm and its peers. Nevertheless, designing a PER model that was able to identify statistically significant variables that would aid other types of banks or financial institutions in target setting of company-specific key performance indicators or KPIs, and specifically for non-universal banks, possible conversion to a universal one. This is one of the important contributions of the results of the study, and that is to aid universal banks in the Philippines in understanding how the variables used – ROE, ROE growth rate, EPS growth rate, DPO ratio, net income growth rate, PSE idex, inflation rate, GDP growth rate, and interest rate influence the respective bank’s PER.

5. ACKNOWLEDGEMENTS

I would like to humbly express my deepest gratitude first and foremost to God who provided wisdom and strength to pursue this academic undertaking, my family, relatives, and close friends for their unending support and understanding, and professional colleagues in and outside the University of Santo Tomas who unselfishly shared time and expertise in the field of finance and investments, academic research, and presentation.

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To the following persons: Evelyn Chua, Jackie Raborar and Olive Dimatulac, for lending much needed assistance when requested,

And to my loving wife and children, you are my greatest blessings and strongest motivation in striving to be the best in everything I do.

This is all for you.

REFERENCES


**APPENDIX**

Raw data for multiple regression

<table>
<thead>
<tr>
<th>BankID</th>
<th>Year</th>
<th>PER</th>
<th>ROE</th>
<th>ROE Growth Rate</th>
<th>EPS Growth Rate</th>
<th>DPO Ratio</th>
<th>PBV Ratio</th>
<th>Net Income Growth Rate</th>
<th>PSE index</th>
<th>GDP Growth Rate</th>
<th>Interest Rate</th>
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<td>2010</td>
<td>17.456</td>
<td>0.140</td>
<td>0.1000</td>
<td>8</td>
<td>0.290</td>
<td>1.065</td>
<td>2.080</td>
<td>0.325</td>
<td>4,055.540</td>
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<td>0.144</td>
<td>0.030</td>
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<td>0.786</td>
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<td>3.64</td>
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<td>0.076</td>
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<td>0.694</td>
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<td>0.123</td>
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<td>(0.110)</td>
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<td>2015</td>
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<td>(0.023)</td>
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<td>-</td>
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<td>-</td>
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</tr>
<tr>
<td>Bank4</td>
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<td>(0.390)</td>
<td>(0.334)</td>
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The Correlation of Digital Feature on Decision to Use Loyalty Program: A Case Study on Loyalty Program in Garuda Indonesia

Aryo Nugroho  
*Universitas Indonesia, Indonesia*

Willem Makaliwe  
*Universitas Indonesia, Indonesia*

**Abstract**

This research aims to analyze and study the behavior of customer which in growing trend of online shopping activities. As Indonesia is now posed to be one of the biggest e-commerce market in Asia, the online shopping activity has also increased exponentially. Due to the increased accessibility towards internet service, online purchase has never been easier. This research will study the correlation between digital products with Customer Loyalty. Data will be gathered by a questionnaire to customer that already fly with Garuda Indonesia in previous 3 years and at least have try one of three digital products on GarudaMiles such as GarudaMiles online registration, online redemption, or online claim mileage. The analysis is conducted using two step approaches. Confirmatory Factor Analysis and SEM for Causal Relationship. The analysis show that online feature have relation with customer loyalty.

**Keywords:** online registration, online redemption, online claim mileage, online shopping, digital channel, customer loyalty

1. **INTRODUCTION**

Loyalty programs or more well-known as “points” or “rewards” programs is introduce by airlines(de boer,2008). The success of the program lies in providing customers with specific rewards. The intention is to reward loyal, frequent flyers more often. The differentiation is made between excellent and poor customers with the aid of behavior registration (Peelen, 2005). As articulated by Reichheld and Saaser (1990) and Reichheld and Teal (1996), loyal customers enable airlines to generate more revenue and margin over time because of multiple reasons; repeat purchases, reduced marketing costs and increased profit margin. As competition is increases but product is similar, airline are developing or improving their loyalty programs to attract customers from defecting to their competitors (Ho, Huang, Huang, Lee, Rosten & Thang, 2009).
Garuda Indonesia as Indonesian Airlines have Loyalty Program Called GarudaMiles. The main benefit of GarudaMiles membership is that member will get the chance to collect Award Miles, which are redeemable for an Award Ticket and Upgrade Award, not only for yourself but also for your family or colleagues. Award Miles redemption applies to Garuda Indonesia and/or code-share flights operated by Garuda Indonesia and/or other airlines that have FFP cooperation with Garuda Indonesia. Redemption in GarudaMiles divided to three award category: 1. Airline Ticket Award 2. Hotel Voucher Award 3. Donation.

Today only Registration, redemption and claim mileage that available on Online and Offline channel. In offline channel Member is required to pay administration fee for each ticket issued in offline channel. Registration on online channel will have additional bonus that tripled from the offline channel. While for claim mileage, the response is mast and effortless. In offline channel member is also required to show the GarudaMiles e-card, ID card and fill the form for redemption. In digital channel member is only required to login to the website or mobile apps and not required to pay the administration fee.

In digital channel, cost of product implementation is reducing due to enhancement of business process. Some of process are eliminate by technology, such as physical document, place for transaction, and marketing material. Because of this reduction, cost of product can be decrease to meet the market demand. In Garuda Indonesia, using online channel is cheaper for cost of ticket because reduce the commission on agent, reduce paper documentation, and physical office cost, and check-in counter cost in the airport.

The writer limits the research on specific activity which is GarudaMiles activity such as registration, redemption and claim missing mileage. The writer aware that difficult data gathered for an unstructured activity, so this specific activity is chosen because the data is significant and easy to gather. Data gathered by questionnaire and one-year history of GarudaMiles member activity.

The writer will focus on redemption air activity, registration GarudaMiles and claim mileage activity. These three activities are most common in the journey process for member GarudaMiles.

2. LITERATURE REVIEW

According to Literature and previous research related to Digital product and Loyalty, in Section 2, a brief review of creating value, customer satisfaction, and customer loyalty.

Enjoyment Value and system satisfaction
Taking an airline online, registration, redeem and claim mileage as an example, this provides valuable services for users, such as easily register, effortless redeem and fast claim mileage. Excellent consumption emotions, such as delight and happiness, have a positive impact on evaluations of satisfaction (Phillips & Baumgartner, 2002). The positive ambiance will increase enjoyment effect that will upgrade the satisfaction score. Enjoyment value which in this study stated as fun activity, can also affect customer satisfaction, as it is a motivational force to encourage consumers to participate in co-production (Yim et al., 2012)

Hypothesis 1a: Enjoyment Value is positively influence system satisfaction

Economic Value
The concept of Economic Value is the result of the addition of 2 other concepts. If we look on dictionary definition per Merriam - Webster of the compounding terms are:
a. Economic is defined as relating to an economy; it results of relate the process or system by which goods and services are consume; relate to the science of economics. (Merriam Webster, 2016)

b. Value is defined as the amount of money or measureable items that worth to a number; the price or cost of items; items that can be bought for a low or fair price; importance or high demand (Merriam Webster, 2016)

According to The dictionary, definition of Economic Value might be rephrased as amount of money that people can received through consumption of a product. The philological translation of the Economic Value terms is only limited accurate; the essence of economic processes is not considered.

Recently Economic Value definition is an economic return of a consumption of product in created value over the expected return of the shareholders.

Economic value can have determined as being the difference between the net profit of the business organization and the cost of the opportunity capital used by the business organization.

**Hypothesis 1b:** Economic Value is positively influence system satisfaction

*Customer satisfaction and system satisfaction*

Different types of customer satisfaction can be classified based on the context being considered. In this research, system satisfaction which is common used in information system research were defined as the alternative parameter which a user believes the information system available to them meets their informational requirements (Ives, Olson, & Baroudi, 1983). As writer stand point, system satisfaction is the level of customer satisfaction with the system as services. Since the system perhaps be just one of service features a company provides, customer satisfaction with the system is important and can be part of to represent the customer satisfaction. The airline consumption experience, for instance, consists of pre journey until post journey that represent by online feature. However, if a passenger feels dissatisfied with the online experience, then this is likely to have a negative effect on their satisfaction with the airline. To distinguish the two types of customer satisfaction in this research, higher level of satisfaction with the online feature is hypothesized

**Hypothesis 2a:** System satisfaction is positively influence customer loyalty

**Hypothesis 2b:** System satisfaction is positively influence customer loyalty

*System satisfaction and Customer Loyalty*

Customer’s loyalty is a customer’s attachment to online services or other entities based on favorable behavioral responses such as retainer (Baran, Galka & Strunk, 2008). Customer loyalty is very essential to the organization in order to retain its current customers. It is because customer’s loyalty can serve several benefits to the organization. Loyal customers are less price-sensitive, reduce marketing expenditures for attracting new customers and improved organizational profitability (Rowley, 2005). Besides that, Raman (1999) and Bowen and Chen (2001) stated that, loyal customers serve as a “fantastic marketing force” by providing recommendations and spreading positive word of mouth. Moreover, loyal customers cost less to serve, in part because they know the products and require less information (Bowen & Chen, 2001).

**Hypothesis 3a:** Customer satisfaction is positively influence customer loyalty
**Hypothesis 3b:** System satisfaction is positively influence customer loyalty

**Conceptual Framework**

For this research there will be 2 variables, independent and dependent variables. For the independent variable the variable will be the value of different types of loyalty product in the research scope. In the other hand, the dependent variable will be variable that reflects the objective of a research which is customer loyalty. There are two (2) elements provided as independent variables under the GarudaMiles loyalty programs which consist of Enjoyment Value and and Economic Value. Those elements are considered to assist the research in investigating the correlation between online Feature implemented on GarudaMiles program and its Customer Satisfaction and customer loyalty.

**Table 1.** Independent and Dependent Variable

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enjoyment Value</td>
<td>Customer Loyalty</td>
</tr>
<tr>
<td>Economic Value</td>
<td>System Satisfaction</td>
</tr>
<tr>
<td></td>
<td>Company Satisfaction</td>
</tr>
</tbody>
</table>

**Figure 1:** Independent and Dependent Variable

### 3. RESULT AND DISCUSSION

**Sample and procedures**

A self-administrated questionnaire survey was used to collect empirical data from air travelers who had used the online feature such as registration online, redemption online and
claim mileage online in system at GarudaMiles product. Based on a convenience sampling method, the questions in the survey were designed based on a review of the literature and the specific characteristics of an online feature at GarudaMiles product. Potential participants were first asked if they had ever flown using Garuda Indonesia. If they responded “yes”, then after being briefly informed of our research purpose they were invited to participate and complete the survey questionnaire. Of the 118 questionnaires distributed, we received 90 usable responses after removing incomplete ones.

Measures
To produce content validity, the writer adopted measures and constructs from existing scales, change to adjust the context of the current progress. All constructs were measured using a five-point Likert-type scale (1 ¼ “strongly disagree” and 5 ¼ “strongly agree”). The writer adapts six items to measure enjoyment value (Yim et al., 2012). To Economic value were measured by three items (Yim et al. 2012). The writer used five item for system satisfaction and three item for company satisfaction (Yim et al. 2012), while two items captured for customer loyalty (Chen, 2008). The original construct items were prepared in English and distribute to respondent.

Data analysis
The respondents’ demographic data is described in this section. A detailed overview of the demographic profiles of the respondents is presented in Table 2.

Based on the sample collected through the distribution of questionnaires, the majority of the respondents are from the age group of 26 to 38 years (84.7%) and 12 to 25 years 1.7%), 13.6 percent were above 40 years.

From the activity of Garuda Indonesia 76.3% responded have at least one time flight with Garuda Indonesia in past 3 years. The majority of the respondents not yet become member of GarudaMiles frequent flyer program (50.8%).

In terms of online feature services consumption, most of the respondents have try the service (61%).

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Frequence</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age of Respondent</td>
<td>Below 25 years old</td>
<td>2</td>
<td>1%</td>
</tr>
<tr>
<td></td>
<td>26 years – 38 years</td>
<td>100</td>
<td>84.7%</td>
</tr>
<tr>
<td></td>
<td>Above 38 years old</td>
<td>16</td>
<td>13.6%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>118</td>
<td></td>
</tr>
<tr>
<td>Fly with Garuda Indonesia in previous 3 years</td>
<td>Yes</td>
<td>90</td>
<td>76.3%</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>28</td>
<td>23.7%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>118</td>
<td></td>
</tr>
<tr>
<td>Have try online feature</td>
<td>Yes</td>
<td>72</td>
<td>61%</td>
</tr>
<tr>
<td></td>
<td>No</td>
<td>46</td>
<td>39%</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>118</td>
<td></td>
</tr>
</tbody>
</table>
The first one to check is “Indicator Reliability” (see Table 2). Most of all indicators inform number above 0.7 that show the inner reliability is give good value. according to literature minimum acceptable level is 0.4 and the preferred level is 0.7.

**Table 3. Outer Loading Detail**

<table>
<thead>
<tr>
<th>Item</th>
<th>Indicator Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>CL1</td>
<td>0.94</td>
</tr>
<tr>
<td>CL2</td>
<td>0.796</td>
</tr>
<tr>
<td>CS1</td>
<td>0.789</td>
</tr>
<tr>
<td>CS2</td>
<td>0.852</td>
</tr>
<tr>
<td>CS3</td>
<td>0.934</td>
</tr>
<tr>
<td>ECV1</td>
<td>0.907</td>
</tr>
<tr>
<td>ECV2</td>
<td>0.86</td>
</tr>
<tr>
<td>ECV3</td>
<td>0.964</td>
</tr>
<tr>
<td>ENV1</td>
<td>0.689</td>
</tr>
<tr>
<td>ENV2</td>
<td>0.727</td>
</tr>
<tr>
<td>ENV3</td>
<td>0.64</td>
</tr>
<tr>
<td>ENV4</td>
<td>0.873</td>
</tr>
<tr>
<td>ENV5</td>
<td>0.864</td>
</tr>
<tr>
<td>ENV6</td>
<td>0.875</td>
</tr>
<tr>
<td>SS1</td>
<td>0.924</td>
</tr>
<tr>
<td>SS2</td>
<td>0.894</td>
</tr>
<tr>
<td>SS3</td>
<td>0.704</td>
</tr>
<tr>
<td>SS4</td>
<td>0.865</td>
</tr>
<tr>
<td>SS5</td>
<td>0.914</td>
</tr>
</tbody>
</table>

**Table 4. Summary Outer Loading**

<table>
<thead>
<tr>
<th></th>
<th>Cronbach Alpha</th>
<th>Composite Reliability</th>
<th>Average Varian</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Satisfaction</td>
<td>0.823</td>
<td>0.895</td>
<td>0.740</td>
</tr>
<tr>
<td>Customer Loyalty</td>
<td>0.703</td>
<td>0.862</td>
<td>0.759</td>
</tr>
<tr>
<td>Economic Value</td>
<td>0.898</td>
<td>0.936</td>
<td>0.831</td>
</tr>
<tr>
<td>Enjoyment Value</td>
<td>0.876</td>
<td>0.904</td>
<td>0.614</td>
</tr>
<tr>
<td>System Satisfaction</td>
<td>0.913</td>
<td>0.936</td>
<td>0.747</td>
</tr>
</tbody>
</table>

**Reliability test**

In social science research the common methodology to measure internal consistency reliability is using “Cronbach’s alpha” but it tends to provide a conservative measurement in PLS-SEM. Nevertheless, the writer will use of “Composite Reliability” as a replacement of Cronbach alpha refer to prior literature (Bagozzi and Yi, 1988; Hair et al., 2012). From Table 3 Composite Reliability are shown to be more than 0.6, this table reflect high value internal consistency reliability among all five reflective latent variables.
Validity test

To check convergent validity, each latent variable’s Average Variance Extracted (AVE) is evaluated. Again from table 5, it is found that all of the AVE values are greater than the acceptable threshold of 0.5, so convergent validity is confirmed.

![Coefficient path diagram]

Figure 2. Coefficient path

According to figure 2 we can see the path coefficient system satisfaction to customer loyalty is below 0.1. It means that no relationship between 2 variables.

4. CONCLUSION AND RECOMMENDATION

This research review that online feature of airline product was insignificant and loose relationship on customer loyalty. This can show on data analysis that customer satisfaction that represent from system satisfaction and company satisfaction is have direct effect to customer loyalty. But only on company satisfaction, while system satisfaction is not have effect to customer loyalty. In addition, created value that represent from economic value and enjoyment value is directly effect to system satisfaction. Based on these result, it suggested to the company to review again the policy to invest on develop online feature for getting customer loyalty purposes.

REFERENCES


The Relation of Work Engagement, Organizational Identification and Job Involvement on Work Performance: Analysis Toward Drivers of Ride-hailing Services

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Budi W. Soetjipto  
*University of Indonesia, Indonesia*

**Abstract**

Recent advances in information technology have changed the competition in many markets. Ride-hailing service company such as Uber, Lyft and Grab emerges as new competitor in transportation market. These companies are the examples of company which taking advantage of advanced digital technology to disrupt the traditional transportation market. Despite ride-hailing service company becomes big attention in many countries, not many studies have been conducted about them. Past studies indicate the importance of work engagement, organizational identification and job involvement in organization, and how it affects organization growth and performance. Organizational identification gives impact on performance because employees with higher organizational identification level are tend to put more effort into their work. Several researches shown positive effect of organizational identification on performance. Job Involvement refers to the psychological and emotional extent to employees in an organization. The population of this study is drivers of ride-hailing service companies in Indonesia.

**Keywords:** work engagement, job involvement, organizational identification, work performance

1. **INTRODUCTION**

Performance of an individual is important for an organization because an organization growth has direct relation to its member performance (Judge et. al, 2001; Vosloban, 2012). Sales figures, productivity records rating scales, tests of job knowledge, hands-on job samples, and archival records can been used to assess performance (Campbell et al., 1990). Job satisfaction, job motivation, organizational identification, job involvement are some examples of factor that can affect work performance. Compare to job satisfaction, job motivation and other factors, there are less studies that linked both organizational identification and job involvement to work performance. Although several past studies did
indicate that job involvement (Kahn, 1990; Keller, 1997; Diefendorff et al, 2002; Rottenbery and Moberg, 2007) and organizational identification (Van Knippenberg & van Schie, 2000; Riketta, 2005; Walumbwa, Avolio, & Zhu, 2008) positively related to work performance.

Aside from work performance, it has been studied that organizational identification and job involvement is related to each other. Several studies indicated that organizational identification often induces members to view the organization’s interests as their own and motivates them to exert effort to be more involved to their job (Worchel, Rothgerberger, Day, Hart, & Butemeyer, 1998). Furthermore, a meta-analysis study by Riketta (2005) reported a moderate correlation between organizational identification and job involvement.

Work engagement is the psychological connection between employees and work (Bakker, Albrect & Leiter, 2011). Empirical research has shown that work engagement relates to many beneficial organizational outcomes such as organizational performance, productivity, and profitability (Harter, Schmidt, & Hayes, 2002). Cartwright and Holmes (2006) mentioned the potential impact of work engagement to organizational identification. Some organizational behavior literature supports a possible link between the work engagement and organizational identification as stated by Dutton et al (1994), Tyler and Blade (2001) and Reade (2001).

Recent advances in information technology have changed the competition in many markets. Ride-hailing and ridesharing service companies such as Uber, Lyft and Grab, emerges as new competitors in transportation market. These companies are the examples of company which taking advantage of advanced digital technology to disrupt the traditional transportation market. Ride-hailing service company which operates in country with traffic congestion problem, such as Indonesia, also offers motorcycle as a ride-hailing vehicle options. Other than to avoid traffic jam, the reason ride-hailing’s customer prefers to choose motorcycle than car is due to the cheaper cost.

Compared to the traditional vehicles such as subways and buses, the ride-hailing and ridesharing service are able to make the trip more convenient and flexible. The ride-hailing service system commonly consists of three parts: (1) ride-hailing server; (2) registered customers; and (3) registered vehicles. To hail a vehicle, consumer only needs to choose their desired pick-up location on the map, and send the hailing request to the ride-hailing server, after that the request will be forwarded to the vehicles around the pick-up point. Ridesharing by definition occurs when travellers share both a private vehicle and the associated travel cost with others that have similar itineraries and compatible time schedules. The popularity of smart phones made the efficient sharing and communication of personal information possible (e.g., location through global positioning systems or GPS). Ridesharing arises as a viable urban transportation option in the context of finite oil supplies, rising gas prices and never-ending traffic congestion. Unlike traditional taxi company, these companies do not own its vehicles but only works with existing private licensed drivers, which makes them a platform matchmaker rather than a transport provider. The working relationship between the drivers and the online transportation or ride-hailing company is different than the conventional relationship between employee and company. They are more like business partners, where the drivers get some part of the revenue.

Most of past researches focused to employee in a corporate organization. The revolution of information technology and organizational design has created new perspective regarding people works outside of corporate world. Despite ride-hailing and ridesharing company becomes big attention in many countries, not many studies have been conducted about them, especially related to the driver’s organizational behavior. This research is involving drivers of motorcycle “taxi” from two biggest ride-hailing service companies in Indonesia. Motorcycle is a common form of transportation in Indonesia, where traffic congestion is deemed to be one the biggest problem in the country. In the past few years, people start to switch over from using public transportation to using ride-hailing services for all of their needs. The attention
from the public and the big market in Indonesia, makes the ride-hailing service companies growing significantly. The companies attract and recruit a lot of people to join as their drivers.

The purpose of this study is to investigate whether the same result will be shown when the same variables studied to non-office employees such as drivers from ride-hailing service company. The work nature of driver from ride-hailing service company is not the same with conventional employees who works in corporate organization. The drivers do not get a fix salary. Their earning and bonus depend on how many passengers they get. On the other hand, the driver’s performance also considered as important factor for company's profit. Since this study used drivers as respondent, their performance will be measured by their income. Due to their fluctuated income, the average earning will be used as a measurement. As mentioned above, past studies of work engagement, job involvement and organizational identification were mostly conducted on conventional office employees. Drivers of ride-hailing companies do not have a direct supervision from the company. They do not need to directly report to the management every day. The phenomenon of ride-hailing service in Indonesia and the different work nature of the respondent will be investigated on this study to find out whether it can be considered as important influenced to all the variables.

**Work Engagement and Organizational Identification**

Work engagement is the psychological connection between employees and work (Bakker, Albrect & Leiter, 2011). Bakker et al (2008) and Costas, Passos and Bakker (2014) argued that highly engaged employees is able to give competitive advantage to the company. Such employees can help to achieve more business goals and helping to drive the organization forward. There has been very little published research on the direct link between work engagement and organizational identification, although Cartwright and Holmes (2006) mentioned the potential impact on engagement and identification. The organizational behavior literature supports a possible link between the two variables as stated by Dutton et al (1994), Tyler and Blade (2001) and Reade (2001). Based on the argument, the proposed hypothesis is:

**Hypothesis 1: Work Engagement positively affects Organizational Identification**

**Organizational Identification and Job Involvement**

Positive evaluation of organization’s membership increases individuals' collective self-esteem and contributes positively to their self-concept (Ellemers et al., 1999; Smith & Tyler, 1997). Pride in organizational membership may lead employees to act in accordance with the organization’s values, beliefs, norms and goals (Hogg & Terry, 2001). Following this perspective, one might argue that, when employees take pride in their organizational membership, they are likely to internalize the goals and values of their organization as their own which, in turn, may motivate them to get more involved in this jobs (Daan Van Knippenberg, 2000). Studies indicated that organizational identification often induces members to view the organization’s interests as their own and motivates them to exert effort on behalf of the organization (Worchel, Rothgerberger, Day, Hart, & Butemeyer, 1998). Further, a meta-analysis study by Riketta (2005) reported a moderate correlation between organizational identification and job involvement which based on 16 previous studies. Based on the explanation above, the proposed hypothesis is:

**Hypothesis 2: Organizational Identification positively affects Job Involvement**
Job Involvement and Work Performance

Many studies indicated that the involvement of employee have significant relation to performance as suggested by Lawler (1986), Kahn (1990), Brown (1996), Keller (1997) Diefendorff et al (2002) and Rottenberry and Moberg (2007). Pfeffer’s (1994) stated that higher employee involvement leads to improved organizational functioning including work performance. Although Brown (1996) argued that relation of job involvement to performance was indirect, but Diefendorff et al. (2002) and Rotenberry & Moberg (2007) stated that Job involvement is a vital construct in maintaining work performance even in unfavourable circumstances. Referred to the past studies, the proposed hypothesis is:

**Hypothesis 3:** Job Involvement positively affects Work Performance

Organizational Identification and Work Performance

During the past two decades, organizational identification has been widely studied as a psychological construct that has unique power in explaining various work and organization related to employee attitudes, behaviors and performance (Dukerich et al., 2002; Hekman et al., 2009). Organizational identification can enhance performance through an identity-based motivation (Ashforth et al., 2008; Homburg et al., 2009). Employees with strong organizational identification are more likely to engage in pro-organization behaviors (Tangirala and Ramanujam, 2008), such as performing tasks better (Mael and Ashforth, 1995). Riketta (2005) presents a positive correlation between organizational identification and performance. Several studies conducted by Van Knippenberg & van Schie (2000), Walumbwa, Avolio, & Zhu (2008), Weiseke, Ahearne, Lam, & Von Dick (2008) also indicate that organizational identification positively related to performance. Based on the above argument, the proposed hypothesis is:

**Hypothesis 4:** Organizational Identification positively affects Work Performance

Referring to hypothesis above, the variables arranged into a model shown in Figure 1. This model is the evaluated using Root Mean Square Error of Approximation (RMSEA), Comparative Fit Index (CFI), Normed Fit Index (NFI), Non-Normed Fit Index (NNFI) (Schreiber, Nora, Stage, Barlow & King, 2006), and GFI (Goodness of Fit Index) to indicate its goodness-of-fit (Hooper, Coughlan & Mullen, 2008).

![Figure 1. Research Model](image-url)
2. RESULT AND DISCUSSION

In order to collect data to examine the hypotheses, a set of questionnaire is made based on measures used in previous research. To measures work engagement, the six items measurement by Chieh Peng Lin (2010) is used. While Candace Jones and Elizabeth Volpe (2011)’s scale is used to measure Organizational Identification. Furthermore, eight items measurement by Kanungo (1982) is used to measured job involvement on this study. Work performance is measured with average earning per day of the driver. As the research was done in Indonesia, the measurement items are translated into Bahasa Indonesia and before the actual questionnaire distribution a reading test was done to five drivers. After some revision, the questionnaire distributed to 270 drivers from two ride-hailing companies which currently operated in Indonesia.

There are total 270 questionnaires distributed to drivers from two biggest ride-hailing service companies in Indonesia and only 263 questionnaires are processed. The demographic respondents are 96.17% are male; 66.28% are 21 to 40 years old; 77.39% are high school graduate and 68.97% are married. The research model is tested using structural equation model.

Table 1. CFA Validity Test Result

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator</th>
<th>Loading Factor</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work Engagement</td>
<td>WE1</td>
<td>0.72</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>WE2</td>
<td>0.82</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>WE3</td>
<td>0.78</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>WE4</td>
<td>0.60</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>WE5</td>
<td>0.72</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>WE6</td>
<td>0.70</td>
<td>Valid</td>
</tr>
<tr>
<td>Organizational Identification</td>
<td>OI4</td>
<td>0.68</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>OI5</td>
<td>0.80</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>OI6</td>
<td>0.56</td>
<td>Valid</td>
</tr>
<tr>
<td>Job Involvement</td>
<td>JI1</td>
<td>0.73</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>JI2</td>
<td>0.78</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>JI3</td>
<td>0.80</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>JI4</td>
<td>0.75</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>JI5</td>
<td>0.76</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>JI6</td>
<td>0.84</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>JI7</td>
<td>0.73</td>
<td>Valid</td>
</tr>
<tr>
<td></td>
<td>JI8</td>
<td>0.71</td>
<td>Valid</td>
</tr>
<tr>
<td>Work Performance</td>
<td>WP</td>
<td>1.21</td>
<td>Valid</td>
</tr>
</tbody>
</table>

Table 1 indicates that the validity result of all variables. After tested with Confirmatory Factor Analysis, it was found that three items in Organizational identification have loading factor less than 0.50 which means the three items considered as not valid. Therefore, those 3 items would be dropped. Scale of Standardized loading factor used is in this study is > 0.5 (Bagozzi & Yi, 1998).
Table 2. Reliability Test Result

<table>
<thead>
<tr>
<th>Variable</th>
<th>Code</th>
<th>Loading Factor (λ)</th>
<th>Error (θ)</th>
<th>(Σλ)²</th>
<th>Σθ</th>
<th>CR</th>
<th>AVE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Work Engagement</strong></td>
<td>W</td>
<td>0.72</td>
<td>0.49</td>
<td>3.32</td>
<td>2</td>
<td>2.8</td>
<td>0.875 0.541</td>
</tr>
<tr>
<td></td>
<td>E2</td>
<td>0.82</td>
<td>0.32</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>E3</td>
<td>0.78</td>
<td>0.38</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>W</td>
<td>0.60</td>
<td>0.64</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>E4</td>
<td>0.82</td>
<td>0.48</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>E5</td>
<td>0.70</td>
<td>0.51</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Organizational Identification</strong></td>
<td>C4</td>
<td>0.68</td>
<td>0.54</td>
<td>1.41</td>
<td>6</td>
<td>1.5</td>
<td>0.724 0.471</td>
</tr>
<tr>
<td></td>
<td>C5</td>
<td>0.80</td>
<td>0.36</td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>C6</td>
<td>0.56</td>
<td>0.69</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Job Involvement</strong></td>
<td>J11</td>
<td>0.73</td>
<td>0.47</td>
<td>4.66</td>
<td>4</td>
<td>3.3</td>
<td>0.918 0.583</td>
</tr>
<tr>
<td></td>
<td>J12</td>
<td>0.78</td>
<td>0.39</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>J13</td>
<td>0.80</td>
<td>0.36</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>J14</td>
<td>0.75</td>
<td>0.43</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>J15</td>
<td>0.76</td>
<td>0.43</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>J16</td>
<td>0.84</td>
<td>0.29</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>J17</td>
<td>0.73</td>
<td>0.47</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>J18</td>
<td>0.71</td>
<td>0.50</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

Table 2 of reliability test result indicates that construct reliability of all variables get more than 0.7. Therefore, if we refer to both validity and reliability test results above, data from this research are able to use for further analysis.

Table 3. T-Value Summary

<table>
<thead>
<tr>
<th>No</th>
<th>Hypothesis</th>
<th>Loading</th>
<th>T-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Work Engagement ➔ Organizational Identification</td>
<td>0.36</td>
<td>4.63</td>
</tr>
<tr>
<td>2</td>
<td>Organizational Identification ➔ Job Involvement</td>
<td>0.61</td>
<td>7.04</td>
</tr>
<tr>
<td>3</td>
<td>Organizational Identification ➔ Work</td>
<td>0.06</td>
<td><strong>0.77</strong></td>
</tr>
</tbody>
</table>
The research model shown in Figure 1 is tested using structural equation model. The t-value of each hypothesis are shown in Table 3. In this study, we argued that drivers who engaged to their job tend to have high level of identification to their own organization. We also argued that the drivers who see membership of their organization as consistent with their personal values and as part of their self-definition tend to get more involved to their job. Furthermore, we also argued that both organizational identification and job involvement have positive effect to driver’s work performance.

Referring to Table 3, H1 is supported as the t-value is 4.63 which is higher than 1.96. H1 supported, indicates that driver’s work engagement has a significant positive effect to their organizational identification. The more they engaged themselves to their work made an impact to how much their identified themselves to the company. Their energy, happiness and enthusiasm when working made positive impact on their loyalty to the company. The drivers pride themselves as an integral part of the company’s success. This result is consistent with previous studies. H2 has t-value 7.04 which is higher than 1.94 and it means this hypothesis also supported. H2 supported, indicates that organizational identification in this study has a positive association with driver’s job involvement. Identification with an organization has been shown to increase individuals collective self-esteem, reduce differences between their own and organization’s identities, and influence their actions that are in accordance with the organization’s goals, values, and practices (Hogg & Terry, 2001). Thus, organizational identification in this study was anticipated to have a positive influence on driver’s job involvement. Consistent with this perspective, organizational identification in this study was found to have a positive association with driver’s job involvement. Meanwhile H3 and H4 have t-value 0.77 and 1.88 respectively. Since both t-values are less than 1.96, it means H3 and H4 are not supported. This indicates that organizational identification and job involvement have no significant effect to work performance. The last two hypotheses shown different result than previous studies.

Most of findings in this study consistent to previous research, except for 2 last findings regarding the relation between organizational and job involvement to work performance. Based on the findings, it is concluded that the high level of organizational identification and job involvement do not necessarily means high job performance. The different result from previous studies might be due to the environment of this study which was conducted to non-office employees. The drivers have different work nature than those employees who works in office. The drivers are considered as business partner to the company. As a business partner, they are expected to have different kind of treatment than employees. Hence this might affect their view to company.

3. CONTRIBUTIONS AND RECOMMENDATION

The findings of this study considered as making contribution and more understanding to the research of work engagement, organizational identification and job involvement. Despite most of the findings are consistent to previous studies, it is important to takes note that the respondent of this study have unconventional relationship with their company. They are considered not working directly under the company and more as business partner to the company. Other than that, future research involving non-conventional office employees should have more balanced sample in term of gender, education and other factors.
Furthermore, some measurement used in this study are self-reports. It means the result might be biased. The sole use of self-report measures was another limitation of this study. Past research has shown that self-reported data are vulnerable to social desirability bias. Additionally, the presence of common method bias, a statistical problem that masks true variance and inflates observed variance, in the results of this study cannot be fully ruled out because driver’s self-perceptions were used to assess both the criteria and predictor variables (Podsakoff & Organ, 1986; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Hence, caution should be taken while interpreting the strength of relationship among measures of all variables. Future research could avoid this and reduce the bias level by using multiple methods and sources to collect data such as company records or using cross-examination method. Hence the response obtained not only a self-report but also from another objective measurement. Lastly, to get more understanding of this issue, future research is advised to be conducted in another industry other than transportation industry which also has unconventional relationship to its employees such as insurance industry and property industry.

REFERENCES


Language Varieties used in the Small Hotel Service Encounter: 
Violation to Scripting?

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Abstract

Entrepreneurship in hotel business in Indonesia has gained more attention along with the development of tourism industry in this country. Small (non-star) hotel business in the form of inns, guest houses, and small hotels are established to cater for those tourists demanding cheaper yet comfortable accommodation. They try to implement good customer service to create value for the customer by practicing hotel service scripting in the service interaction and communication between the guest and the service staff. Building on existing literature, this article tries to look deeply into the language used in the service encounters in a hotel front office setting. It argues that the local language and its unique varieties can create customers perceived sincerity and acceptance versus the highly prescribed script. This is the literature gap that will be revealed as a result of the discussion. Propositions are presented for future researchers to prove them true.

**Keywords:** entrepreneurship, service encounter, interaction, language varieties

1. INTRODUCTION

Business opportunities in the Tourism Industry in Indonesia has recently been widely open since the government efforts to boost tourism all across the country. Hotels are present more and more in cities as well as in remote places. Entrepreneurs see this as business opportunities for them to catch. Referring to the Indonesia Centre of Statistical Data (BPS), the number of non-star accommodations in Indonesia has been steadily increasing from 9,847 in 2004 to 16,442 in 2016. Non-star hotels are usually entrepreneur start-ups. This business is getting better and better as well, as shown by BPS Data on the occupancy rate (28.3% in
2004 to 34.8% in 2016). Entrepreneurs invest with careful consideration on the profit projection of the business. Profits come from good products and services which create values to the customers. To achieve this result, hotel managers need to have a deep knowledge of customers’ needs, behavior, and preferences and be aware of the ways in which the services create value for the customers and then stimulate their retention and loyalty (Minghetti, 2003). This literature review focuses only on the customer service aspect of the check-in and arrival process where the guest undergoes a face-to-face service encounter with the hotel. It tries to highlight gaps in the existing literature as well as important aspects that has not gained enough attention from the academicians.

Hospitality industry sells mostly intangibles, ranging from convenience in hotel booking, a nice and peaceful rest, to personal care along the line of experience in the hotel service. The intangibility of hotel service makes it impossible to standardize. However, standardization of production is necessary. Hospitality services are scripted, under the theory that scripts are an efficient method of ensuring a consistent level of service quality, in other words: standardization is necessary. However, few empirical studies have examined how the use of scripts affects the customer’s view of service quality (Victorino et al., 2008). In hotels with heavy scripting there is no room for conversation other than interaction full of transactions for the sake of completing a task (Stanley, 2019). In this case, Victorino et al. found out that the kind of service encounter is not an interaction as it is meant to be, but a pure transaction. In their research this kind of scripting results in customer indifference about the service quality.

Service encounters actually take place in any business, involving both physical products and intangible services. When a salesman of a property meets the potential buyer, a service encounter happens, and in the encounter, apart from whether the buyer actually buys or declines to buy, they, both the customer and the staff serving them, have undergone an experience of a service which can be a good and memorable one, or one which is so bad that the customer (and the staff) tries to forget (but they fail) and decide not to have any more patronage with each other. A service business tries to satisfy its customers and to create value for them starting from the first touch point where service encounters function as the first action of the manufacturing of services. To satisfy a need, customers must sometimes stop by and undergo a sequence of service encounters as parts of a process in a business establishment. Zomerdijk and Voss (2010) call it a “service journey” through a line of touch points.

A service encounter between the customer and the hotel service front office officer can be regarded as the first touch point a customer has with the service establishment, of course, after the doorman. In this first contact with the business organization, first impression, eye contact, attitude, manners, and communication play along, creating perception and evaluation in the mind of the customers about service and the organization in general. This article narrows its focus on the small hotel business in which service encounters are of prime importance. As an illustration, Javanese, a vernacular language in central Java is used to look into the tendency of code switching and/or code mixing, a tendency particularly in multilingual or bilingual society. Javanese is the mother tongue of Javanese people. It generally more comfortable for them to speak Javanese than to speak Indonesian as their lingua franca. As the lingua franca, Indonesian is the official language used in formal situation and surrounding. Javanese switch codes in their communication with their fellow Javanese, from Indonesian to Javanese. The practice of alternately using two languages is called code switching. Code switching is a linguistic phenomenon commonly occur in bi- and multi-lingual speech communities (Mahootian, 2006). Code switching is defined as the practice of selecting or altering linguistic elements so as to contextualize talk in interaction (Nilep, 2006).
Javanese are obviously multilingual. They speak Indonesian language as the lingua franca, and Javanese as their everyday language in both formal and informal contexts. Some speak English, where English is the only language spoken in a communication with foreigners. Most of the time in daily communication they switch or even mix languages/varieties/codes as the conversation flows, not realizing the reason why they do it. To illustrate, consider this sentence uttered by a Javanese bargaining in a local store. “Saya beli dua potong mas, apa ya ndak ada diskon to?” “I will take two pieces, won’t you give me a discount?” In Indonesian they would say “Saya ingin membeli dua potong mas, apakah saya tidak diberi potongan harga?” The word ‘beli’ as used in the actual utterance is a code switch from the formal ‘membeli’. The words ‘apa’ is the informal form of ‘apakah’, while ‘ndak’ is the informal form of ‘tidak’. ‘Diskon’ is actually an adopted word from the English ‘discount’. ‘To’ is the informal question tag. In this small piece of conversation, the speaker has done code switching and code mixing at the same time. This happens because members of a community have their distinctive linguistic repertoire, which is, a range of varieties (or codes) from which people select according to the context in which they are communicating (Holmes, 2013).

While they use Indonesian as the lingua franca or the national language, there are varieties of this language itself as to its levels and consequently the use of words and even intonation. Javanese people can be called bi-linguists due to the fact that they use Indonesian in formal occasions, and Javanese with all the complexities of levels, both in formal or informal communication and in formal and informal contexts. Code switching depends on the participants (who is speaking and, who are they speaking to), the setting (where are they speaking), the topic (what is being talked about), and the function (why are they speaking) as argued by Holmes (2013) and Thompson and Kuhlen (2014).

The psychology of the code-switching and code-mixing in the service encounter communication is not to be considered in this literature review to avoid redundancy and neither is the online encounters. This literature review looks into the description of the code-switching and code-mixing and how these influence the customer satisfaction and value creation in the hotel front office encounters. In this context, the writer assumes that Javanese in their communication in a hotel service setting would switch their language from Indonesian to certain levels of Javanese when they serve and communicate with Javanese guests. The switch can be for a range of reasons from paying respect to wanting to be friendly. They also mix and use words from other languages beside Javanese, either borrowed or adopted words, as the example presented above. Small sized hotels target local people offering low prices, homy atmosphere with bottom line facilities. Entrepreneurs with this kind of start-up business are often a bit ambitious and idealistic in delivering hotel standard services and reinforce the use of scripting. But, as can be seen later in this literature review, multilinguals tend to code switch and code mix to achieve mutual comfort.

**Gaps in literature on service encounters**

Existing literature on service encounters has put much emphasis on the role of the service staff, but writers have recently begun to mention the role of the customers in the service interaction. The customers are not just an onlooker in the service, his or her presence in the encounter creates a social dynamic in which the service staff realizes his/her role and does as scripted. How the staff scripts depend very much on the nature of script usage as prescribed by the hotel. A well designed service delivery system allows all the participants in the service encounter feel better and emerge with enhanced self-esteem (Sridhar, 1998). Then comes the role of communication in the interaction happening in the encounter. Communication is the process of exchanging information, in which language is used. Any communication, and therefore, interaction, use language of some kind and it can be verbal or non-verbal. So does
interaction in the service encounters. However, the communication aspect of the service encounter has little mention in the service literature.

Only recently have some writers had their eyes on the use of language in the service encounter interactions (Holmquist and Gronroos, 2012; Jones, 2005). These articles try to show that language, including language varieties and the code switching from the prescribed language in the service scripts to language varieties, practiced by the service personnel in their interaction with customers, should have equal attention when discussing the service encounter quality and creation of the customer value. Good communication in service interaction builds trust. Trust and social interaction seem to be effective predictors of service loyalty (Azza and Norchene, 2017). If language is a means of communication, it is unusual that language is out of consideration in writings by academicians. Johnson et al. (2005) present their ideas on how communication can influence people and change their attitude. In the realm of service encounters, the service staff can also influence the customer to purchase and change their attitude toward purchase or the hotel in general, from unfavourable to favourable.

Hotel trainings are heavily loaded with scripting. Scripting is needed due to the high variability of service. It helps reduce the variability by standardizing the service, therefore it is called scripting. Scripting is, in a way, like a recipe which should be followed to produce favourable delicacies. It should also be understood, that, the success of a service encounter depends on both the customer and the service provider, herewith represented by the service officer serving the customer. Solomon et al. (1985) suggested that a service encounter is dyadic in nature. Service involves an interaction between two different persons, two different human beings bringing different personalities, different emotion, different education, interests, opinions, and even different languages – lingua francas or the national languages and vernacular language, of course. Those factors add to the variability or heterogeneity of the service.

The dyadic interaction in the hotel front office involves participants of the front office service encounter consisting of the front office staff representing the hotel establishment and the customer wanting to get the service of a nice stay in the hotel. The dyadic nature of service encounters is also mentioned by Neghina et al. (2014). Gronroos (2011) says that there is a co-creation of customer value in each of the service encounters. The service logic or service dominant logic makes the active role of the consumer, and thus the impact of communication, even more significant (Gro¨nroos 2008; Vargo and Lusch 2004, 2008). If a service encounter is a co-creation of value, it can be concluded that it is not just the service provider’s staff who has to create value, but the customer also has an important task in enabling the encounter results in value. Both the staff and the customer are the participants in the service encounter.

This article narrows its discussion to the language varieties used in service encounters in a multilingual society particularly. All aspects of customer service quality, i.e. tangibles, responsiveness, reliability, assurance and empathy (Lovlock and Wright, 2006) are still of importance, but further, it is more beneficial for the hotel if relationship is created. Trust as a fundamental building block of relationship is gained among others through interactions, which use language of some kind. Trust; and therefore relationship, is individual (Gummeson, 2002). Service in a service encounter is always customized. Writers on the topic of hotel service and even service encounters have discussed a lot on the influence of the innate characteristics, like, empathy, personality, attitude, motivation, etc. of the service staff (Lovlock and Wright, 2006; Bitner et al., 2008; Solomon et al., 1985; Gronroos, 2011). The external factors influencing the service quality, like, lighting, music, vicinity, ambient and all the physical provisions and, most mentioned recently, the supporting technology are discussed in literature as influencers to service excellence (Lemon and Verhoef, 2016). Those
are, of course, important factors in creating a successful service encounters too. Jones (2005) agrees to this notion as she suggests that a service outcome depends on the interaction quality, physical environment quality and outcome quality.

A few writers mention the role of language in service encounters (Holmqvist and Gro¨nroos, 2012; Brasdefer, 2015; Scerri et al., 2017). Interactions need language for communication, and language is a means of expressing needs, wants and desires; consequently, the actors need some kind of language that can be mutually understood. Understanding goes deeper than just language, though. Participants of the service encounter should consider using mutually understood language varieties to create the feeling of sincerity and acceptance, two important factors underlying trust. Although the domain of communication is supposed to be formal since the communication domain is a hotel receptionist counter, people tend to pick up a language or varieties from their linguistics repertoire and use it in the interaction. When they do so, they indirectly create a kind of “sameness”, “belonging” atmosphere in the interaction. This kind of atmosphere support the feeling of closeness between the two parties as Choy (2011) found in his research. Thereby, arguments focusing on the language varieties used in service encounter communication needs attention.

Varieties are spoken daily in most Indonesian ethnic languages such as Javanese, a language spoken in Central and East Java. Javanese is a very rich language. In its development, this language has adopted and borrowed words from languages around the country of Indonesia. The language has a root far back to the kingdoms of Majapahit in East Java and Mataram in Central Java. Language varieties developed as communication with the kings and other high rank officials demanded a variety different from the one spoken among the ordinary people. This variety, too, developed further into a variety used between common people of the same age and status and another variety spoken to older people and people from a higher status. The use of codes depends on the participants as stated by Holmes (2013). Further, parallel with Holmes’ opinion on variety usage, Javanese may use certain appropriate variety depending on the status scale, formality scale, referential and affective function scales. Status scale creates social distant in the Javanese community. The varieties of Javanese until nowadays denote the social class levels and is practiced in daily communication whether in business or casually (Aini, 2015).

In a service encounter, the participants can use scripts, of course. However, Javanese mostly prefer to speak Javanese rather than Indonesian as the lingua franca. Javanese as their vernacular language is actually their mother tongue. In Central Java people tend to or is more comfortable to use Javanese rather than Indonesian in conversing with the same Javanese fellows. The service staff must have had the scripts they are trained before, they cannot ignore the script, but in order that value is created, they just use the script as reference. They use Javanese to serve since Javanese is the dominant language used by both parties. It is a language to express notion ranging from respect to simply orders, from indifference to affection.

During the process of value creation, the staff would try to gauge the social distant between herself or himself and the guest. She or he can decide on the approximate social distance the customer is from the customer’s behavior and how they speak. If the customer is older, it is easier for the service staff to choose which variety he or she is going to use. In this case Kromo variety of Javanese is used. On other occasions when they encounter with a customer of the same age, they will still use the Indonesian at first, as scripted, and if the interaction develops closer into friendship kind of relation, they will switch to Madyo, the middle level of Javanese, and later, when they know each other better, they speak Ngoko, the lowest level of Javanese. Variety dominance is determined by social ranks, age, and the closeness of the relationship (Paradis and Nicoladis, 2015). Since language is part of the
culture, understanding the cultural dimensions will increase understanding of socio pragmatic considerations underlying how members of a community (in this case, ethnic group) use the language (Nadar, 2007). Bilingual speakers often code-switch from one language (variety) to another, especially when both languages (varieties) are used in the environment (Heredia et al., 2001).

Table 1. The Use of Varieties in Javanese

<table>
<thead>
<tr>
<th>The situation</th>
<th>The receptionist</th>
<th>The customer</th>
<th>Explanation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Situation 1</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>An elderly man entering a hotel and approaching the receptionist counter.</td>
<td>Selamat siang pak, bisa saya bantu? (Good afternoon sir, can I help you?)</td>
<td>Selamat siang. Ya, saya booking seminggu yang lalu. Satu kamar deluxe.</td>
<td>The language used is Indonesian as scripted.</td>
</tr>
<tr>
<td></td>
<td>Nuwun sewu, ngagem asmanipun panjenengan? (Sorry, did you book on your name?)</td>
<td>(Good afternoon. Yes, please. I booked a room last week, one deluxe room for two days) Handing in his business card. (Here is my business card.)</td>
<td>The receptionist switch to kromo variety of Javanese, because the guest is much older than herself.</td>
</tr>
<tr>
<td></td>
<td>(reading the card,)</td>
<td></td>
<td>Tur nuwun is madyo level. The guest do not respond in Kromo. An older person use a level below what the younger people use.</td>
</tr>
<tr>
<td></td>
<td>Njih Bapak, menika sampun siap. Sumonggo. Menika kuncinipun. (giving the key and call a bell boy to escort him). (That’s right sir, please, here is the key, the room is ready).</td>
<td></td>
<td>Tur nuwun is madyo level. The guest do not respond in Kromo. An older person use a level below what the younger people use.</td>
</tr>
<tr>
<td><strong>Situation 2</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Two young women come through the door, escorted by the door boy.</td>
<td>Selamat pagi ibu. Bisa saya bantu? (Good morning mam, can I help you?)</td>
<td>Ya, saya ibu Hartono yang kemarin pesan kamar untuk hari ini dan besok. (Yes, please. I am Mrs Hartono. I booked a room for today and)</td>
<td>The use of script (lingua franca)</td>
</tr>
</tbody>
</table>
### Situation 3

Two young boys are approaching the receptionist counter.

- **Saya lihat dulu ya bu (OK let me see)**
  - O ya betul ibu, ibu dari PKK Kelurahan Kebon Arum Sragen ya. Kamar sudah siap ibu. *(Let me see, Yes I found it. You come from the PKK kelurahan Kebon Arum, Sragen. Is that right?)*
  - Monggo ibu *(Please Mam)*

- **Wanten koper menowo tas ingkang ugi dibeta’aken?** *(Do you need help with your luggage?)

- **O iyo, Ono loro.** *(Yes, please. I have two pieces)*

- **Mrs Hartono a young ordinary woman, so the receptionist switches to Javanese Madyo because the guest is older than herself and followed by Mrs Hartono using Javanese Ngoko. An older person use a variety lower than the younger.**

- **Mbak, masih ada kamar kosong untuk dua orang, single bed?** *(Sist, do you still have one room for the two of us, with single beds?)*

- **One of the boys speak Indonesian at first, but then he switches code to the Ngoko variety. When the receptionist answers in casual Indonesian, the boys feel the sincerity and acceptance, so they continue to use the**

<table>
<thead>
<tr>
<th>Saya lihat dulu ya bu (OK let me see)</th>
<th>tomorrow).</th>
</tr>
</thead>
<tbody>
<tr>
<td>O ya betul ibu, ibu dari PKK Kelurahan Kebon Arum Sragen ya. Kamar sudah siap ibu. <em>(Let me see, Yes I found it. You come from the PKK kelurahan Kebon Arum, Sragen. Is that right?)</em></td>
<td>Ya, betul. <em>(Yes, that’s right).</em></td>
</tr>
<tr>
<td>Monggo ibu <em>(Please Mam)</em></td>
<td>Suwun <em>(thank you).</em></td>
</tr>
<tr>
<td>Wonten koper menowo tas ingkang ugi dibeta’aken? <em>(Do you need help with your luggage?)</em></td>
<td>O iyo, Ono loro. <em>(Yes, please. I have two pieces)</em></td>
</tr>
</tbody>
</table>

- **Not very formal Indonesian is used as they are of the same age, and because they don’t know each other they still use Indonesian.**

- **Waaah, terima kasih ya. pemandangane uapik.** *(Wow, thank you. It has good scenery then).*

- **Sebentar ya, . . . . . . ada satu kamar. Kalian beruntung. Ada kamar dilantai dua menghadap ke Gunung Merbabu.** *(Looking through the list of rooms), (Wait a minute . . . . . . yes, there is one. You’re lucky. You have one room on the second floor, overlooking Mount Merbabu).*

- **One of the boys speak Indonesian at first, but then he switches code to the Ngoko variety. When the receptionist answers in casual Indonesian, the boys feel the sincerity and acceptance, so they continue to use the**
The next day, the three meet in the lobby.

Lha kok ora booking disik lho? Nih ada kartu hotel. Bisa booking online kok. *(Why didn’t you book? Here is the hotel card. You can book online too).*

Hei, piye kabare bro? Tidur nyenyak? *(Hi, how are you guys?) (Sleep well?)*

Wong rencanane ora nginep. *(We did not plan to stay over night).*

Suwun yo mbak. *(Thank you sist)*

Apik mbak, wah turu ngglegesek. *(We are fine, we slept like babies)*

Ngoko variety.

Bro is the short form for brother, the word is common amongst male youngsters. The three speak the Ngoko variety.

The hotel should make sure that out of the heterogeneity of the service, customer value is created. That is why the interaction between the employee and the customer should be designed, managed and controlled. When script is used as far as the procedure to follow in serving the customer, and not as detailed as the words/phrases used as suggested by Evanson (2012) on the use of powerful phrases for interacting in a service encounter, the service employee still has room for maneuvering in the form of language use to make the encounter successful. Customers in hotels and restaurants can quickly discern when an employee is following a service script. The customer’s reaction to that script depends in part on the nature of the service transaction, but also on how authentically the employee behaves within the script (Victorino et al., 2012).

Favorable atmosphere for a service creates favorable mood in the guest and the service staff. Eventually, atmosphere is not created solely on physical investments. Heide and Grondhaug (2009) found out in their research that there are four stable and robust factors of atmosphere, namely, distinctiveness, hospitality, relaxation, and refinement. Distinctiveness was found to be the main factor in atmosphere; consequently, it is reasonable to assume that a certain degree of distinctiveness is a prerequisite for creating favorable atmosphere. Distinctiveness can be thought of as the facility/physical design of the front office. However, communication and interaction can also be distinctive in that it is built on understanding and the feeling of security and acceptance. Beyond that, however, hospitality emerged as the main determinant for guest satisfaction, loyalty, and word of mouth. Hotel service is meant to build up an atmosphere of sincerity and acceptance for the customers. Attaining a distinctive and hospitable atmosphere has become a pivotal concern for hospitality managers, since atmosphere is perceived to be an essential factor to attract and satisfy guests. A distinctive
and hospitable atmosphere in the Javanese culture can be better achieved when both parties in a communicative interaction plunge into the correct language variety conversation. Both parties feel to be in the same sphere of language interaction, which gives them the feeling of security and acceptance. Service scripting is learned and practiced but the language used may not be the same word to word especially in a situation where the participants of the interaction in the service encounter agree and mutually feel comfortable with the atmosphere created therein. The feeling of sincerity and acceptance are two important factors in creating comfort, easiness, and fruitful atmosphere of service interaction. It can be concluded that scripting is useful but in Javanese context, the language and varieties used can be switched accordingly. This is only possible in hotels with relaxed scripts.

Herbert (2011) citing Jakobson's model of the functions of language distinguishes six elements, or factors of communication, that are necessary for successful communication to occur: (1) context, (2) addresser (sender), (3) addressee (receiver), (4) contact, (5) common code and (6) message. Each factor is the focal point of a relation, or functions, that operates between the message and the factor. The functions are the following, in order: (1) referential ("The Earth is round"), (2) emotive ("Yuck!"), (3) conative ("Come here"), (4) phatic ("Hello?"), (5) metalingual ("What do you mean by 'krill'?"), and (6) poetic ("Smurf"). In the context of service encounters, the message is exchanged between the service staff and the customer in the service contact, and they share a common code. The language or the language variety used depends on the needs and how the participants in the encounter express the need, which then cultivate one or some of the language functions in their expressions. As a service encounter involves interaction where two people are engaged in a dialogue or actively participating in the interaction process, the Jacobson’s functions are used interchangeably to add to the effect of closeness.

In Javanese context, the three level language varieties are significant in creating the atmosphere of sincerity and acceptance. Therefore, code switching from Indonesian, as scripted, to Kromo, Madyo, or Ngoko varieties can be tolerated for the sake of satisfaction and customer value. This notion supports Brady and Cronin (2001) proposal of the hierarchical conceptualization of service quality that focuses on three primary dimensions: interaction quality, physical environment quality and outcome quality. Interaction quality deals with the dimensions of attitude, behavior and expertise of the customers and salesperson. The physical environment encompasses ambient conditions, design, and social factors of the service area. Outcome quality deals with social factors, waiting time, tangibles, and valence. Valence is a relative capacity to unite, react or interact. It is obvious that the human part of the service quality shall contribute to the valence, that is the capability to interact and communicate, and in the sense of language use, the service staff shall use the appropriate language varieties as needed so that sincerity and acceptance are pre-set to create customer satisfaction and value.

Entrepreneurs engaging themselves in small hotel business should be customer oriented. Customers are both the objects (viewed from the profit orientation) and subjects (viewed from the customer orientation). According to Kohli and Jaworsky (1990), a customer oriented organization should always try to understand its customers and continuously create value for the customer, whatever efforts it takes. Deshpande et al (1993) also stress on values for the customer as well as other stakeholders by defining customer orientation as “the set of beliefs that puts the customer’s interest first, while not excluding those of all other stakeholders in order to develop a long-term profitable (viable) enterprise”. Creating values, among others, means delivering an excellent service to the customers. Strict scripting can not be practiced at the cost of inability to retain customers or even, losing them at all.
2. CONCLUSION

Code switching from the prescribed script to appropriate language varieties does not violate service scripting, it even adds to the comfort and “at home” kind of atmosphere. Code switching supports the creation of atmosphere, consisting of distinctiveness, hospitality, relaxation and refinement. When participants in the service encounter use language or language varieties common to both (the customer and the service staff), the interaction is made personal and thereby, creating close relationship between the two. The interaction becomes distinct. The customers feel respected and accepted. Sincerity is built up along the ongoing conversation in a relaxed atmosphere.

Small hotels, especially, would be wise if it adopts the customer orientation as their philosophy and practice. Creating customer value shall be the important outcome of their service. Tight scripting cannot be followed at the cost of leaving customers feeling indifferent and, therefore, do not care about continuing their patronage. Discovering customer value is the ultimate goal of their marketing efforts.

Language is a means of communication. Communication in service encounters does not only involve exchanging information expressed by using language, but it can be more than that. Meaningful communication results in insights gained from the feeling of closeness, not just face to face, but heart to heart communication. Communication in business influences potential customer to buy and non-customers to like the products offered. It happens in the service encounters too. The staff create distinct atmosphere of hospitality and use the appropriate language/variety to make the customers feel at home, and it is expected that the customers will change their attitude.

However, researches on language usage in service encounters still need to be done. Entrepreneurs in a hotel business start-ups should not be too idealistic as to have the staff follow the service scripts as recommended and even made it compulsory in their daily service delivery practice. Being customer oriented means creating customer value, which consists of superior and excellent service as what customers expect. Allowing code switching in multi-lingual society having wide linguistic repertoire can be a wise decision. There shall be more researches and discussions on language as a means of communication in a successful service encounter.
Figure 1. Conceptual model of interactive communication in a hotel front office service encounter and the creation of customer value.

3. PROPOSITIONS

The discussions lead to propositions for future researches on service encounters focusing on the communication part and the use of language in the interaction.

1. Strict scripting in a service encounter results in formality, indifference and transaction.
2. In a community where the linguistic repertoire is wide/large, code switching to vernacular language varieties creates favourable atmosphere.
3. Code switching to varieties understood by the staff and the customer results in sincerity and acceptance, and therefore, meaningful interaction.
4. The use of language varieties supports the creation of favourable atmosphere of distinctiveness, hospitality, relaxation and refinement.
5. Good communication results in influence and change of attitude.
6. Enhanced relationship with the customers can be achieved through good communication using the appropriate language and/or varieties.
7. Relaxing the script usage in some cultures where language varieties exist, and flexibilities that allow code switching from the lingua franca to appropriate variety positively influence the customer value creation.
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Prediction of Factors that Influence Complaint Handling Sentiment on Customer Using Logistic Regression (Case Study of an Online Shoe Company)

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**Abstract**

Researchers are interested in conducting research with the title "Prediction of Factors that Influence Complaint Handling Sentiment on Customers Using Logistic Regression (Case Study of PT. Xuten Inc)". This research was conducted on customers of PT. X that submits complaints in the complaints system and customer responses using the LINE application. This research is directed at examining the existence of factors in handling customer complaints, namely Product Factors, Technology Factors, Information Factors, Agreement Factors, Settlement Factors, and Type of Action (Cho et al, 2002), how does the type of action carried out by the company respond customer complaints (Shammout and Haddad, 2014) also factors of Recency, Frequency, and Monetary Value Purchased (Birant, 2011) as predictors of factors that influence sentiment complaint handling. The ultimate goal, is to be able to know the significance of the influence of the factors that contributes to complaint handling on sentiment analysis and provide recommendations to maintain the effectiveness of complaint handling that has been carried out by PT. X. Research uses the principle of Natural Language Processing (NLP), which is done using sentiment analysis. The method of data collection in this study is Unobtrusive Measures. Meanwhile, based on the type of investigation this study was post facto, with a cross-sectional time dimension. The population of this study is a number of customers who make purchases at PT. X from June 2017 to June 2018, namely 32,299 users. The sampling technique used in this method is a non-probability sampling technique that is purposive sampling. Data analysis techniques used to see the strong significance and influence of predictors of factors on sentiment complaint handling are logistic regression.

**Keywords**: sentiment analysis, complaint handling, logistic regression
1. INTRODUCTION

The increasing number of internet users in Indonesia is an opportunity for digital-based entrepreneurs. The growth and expansion of internet access also encouraged the emergence of new economic sectors such as e-commerce. E-commerce or electronic commerce is the buying and selling of goods and services through the internet, e-commerce also defines a broader process of how the internet changes the way companies do business from upstream to downstream and about functions such as marketing and logistics (Lindsay, 2002; in Khan, Abdul, 2016). Reporting from liputan6.com (2017), Bank Indonesia estimates that there are 24.7 million people who shop online. The value of e-commerce transactions is predicted to reach Rp. 144 trillion in 2018, up from Rp. 69.8 trillion in 2016 and Rp. 25 trillion in 2014. With the presence of e-commerce, it is easier for people to make purchases online anytime, anywhere.

Reporting from www.tek.id, from “We Are Social” January 2018 the majority of Indonesians conduct transactions on e-commerce for fashion and beauty. This makes e-commerce players especially in the fashion sector have very tight competition. Therefore, companies must have a superior marketing strategy to attract customers and good customer relationship management to retain customers.

So far, PT. X conducts digital marketing with social media platforms such as Facebook Ads, Google Ads, Youtube Ads, Instagram Ads and others. The most prominent strategy that is carried out by the company is marketing new products at low prices but quality is still the priority. Before conducting a marketing strategy, PT. X first determines the target of prospective customers based on customers’ behavior that is analyzed using Google Analytic software. This behavior analysis is done to be able to see the typical characteristics of the targeted market segmentation. (Results of interviews with Abdullah Zainal, CMO PT. X, on May 12, 2018).

The marketing strategy that is carried out produces positive results for the company, such as increasing the number of followers on Instagram, Facebook and LINE social media platforms. At present the number of PT.X Instagram followers reaches 182,000, facebook total likes as much as 18,000 and the number of LINE followers reaches 57,520 (accessed on September 8, 2018). The implementation of a more mature strategy is quite effective in increasing the number of followers and visitors has a positive impact on the company, one of them is the increase in the number of purchases and profit from previous years.

![Figure 1. Increase in PT “X” Profit](image_url)
However, an increase in visitors, followers, transactions, and profits, also raises certain trends, where companies can see the existence of complaints raised by consumers. Based on an analysis of the complaints data received by the company, in 2016 and 2017, it was not avoided that customer complaints were still encountered by the company. Customer complaint data can be seen through total Return, Repair and Refund. Following are the Return, Repair and Refund data in 2014, 2015, 2016 and 2017 at PT. X:

<table>
<thead>
<tr>
<th>Year</th>
<th>Return</th>
<th>Repair</th>
<th>Refund</th>
<th>Total Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>16</td>
<td>10</td>
<td>5</td>
<td>4,192</td>
</tr>
<tr>
<td>2015</td>
<td>32</td>
<td>184</td>
<td>33</td>
<td>11,910</td>
</tr>
<tr>
<td>2016</td>
<td>183</td>
<td>295</td>
<td>197</td>
<td>30,685</td>
</tr>
<tr>
<td>2017</td>
<td>205</td>
<td>391</td>
<td>362</td>
<td>61,289</td>
</tr>
</tbody>
</table>

(Source: PT. X 2014 - 2017)

The high number of Returns, Repair and Refunds illustrates that customers experience incompatibility with the desired product with previous expectations. Based on the data above, the number of Returns, Repair and Refunds increases every year, the number of purchases increases, the number of complaints increases. With complaints increasing every year, PT. X opens customer care services through an LINE Official account that aims to make it easier for customers to complain and ask for information. By opening the service, PT. X hopes to provide responses to customers who complain about complaints so that it is expected to minimize negative word of mouth from customers spread on social media.

This research is directed at examining the existence of factors in handling customer complaints, namely Product Factors, Technology Factors, Information Factors, Agreement Factors, Settlement Factors, and Type of Action (Cho et al, 2002), that explains how does the type of action carried out by the company respond customer complaints (Shammout and Haddad, 2014) also factors of Recency, Frequency, and Monetary Value Purchased (Birant, 2011) as predictors of factors that influence sentiment complaint handling. Then these factors will then be analyzed using logistic regression assisted with "R" software. Based on the description above, this study is entitled "Prediction of Factors that Influence Complaint Handling Sentiment on Customers Using Logistic Regression (Case Study of an Online Shoe Company)".

2. LITERATURE REVIEW

Electronic Customer Relations Management (e-CRM)

Electronic Customer Relations Management (e-CRM) gets the attention of e-business managers to improve business and consumer loyalty (Cho et al, 2002). The problem of customer dissatisfaction is rarely seen by e-marketers and researchers even though online customer complaints are an image of the company. This is because handling complaints made by e-business to customers shows how they value their customers, therefore every e-business needs to implement good electronic customer relationship management. Chaffey (2009) mentions specifically that the important requirements in e-CRM activities are:

1) Using a website for customer development, makes it a convention for both online and offline sales to drive sales
2) Manage the quality of email lists that contain information about customer profiles from the database to activate the target
3) Use data mining to increase targets
4) Providing online customer service facilities (such as asked question on the website, callback and chat support)
5) Manage online service quality to ensure customers who make the first purchase get valuable experience so they have the desire to repurchase
6) Managing multi-channel customer experience uses different media, asking about the customer's experience buying in your company

In research (Cho et al., 2002), it describes several factors that cause online and offline customer complaints to be divided into two parts, as shown below:

![Figure 2. Analysis of Online Customer Complaints Causes](source: Cho et al, 2002)

Customers who make complaints are caused by two main causes. The first cause is caused by the failure of the product provided by the company both the quality of the goods received and the failure of the quality of the website and the technology system owned by the company. While the second cause is caused by failure to provide customer service such as failure to provide information, failure in the delivery process to failure to provide a guarantee (Cho et al, 2002). The factors that cause online and offline customer complaints can be described below:

1. **Product Factor**
   - It is a failure that arises due to the quality of the product that is below the quality standards owned by the company. This can be seen from: product failure, requires exchange of products or refunds, poor quality and others.

2. **Technology Factor**
   - Is a failure that arises as a result of the technological factors used. With the interference in the use of technology, it can affect failure to access information that should be provided by the company. This can be seen from the system performance, Speed, links to other pages,
and other problems related to page websites are always slow; even when other sites work well; failure to link other pages, etc.

3. Information Factor
   It is a failure that arises due to the inaccuracy of information held by the company with information conveyed to customers. It can be seen that there are gaps that make decision making inaccurate. This happens because of three things:
   a. Information Failure
      Information quality failures, bad structure of information content, not determined everywhere to get services, misleading information and others. The product does not have all the functions described on the information page; receiving false information and others.
   b. Product Unavailability
      Mistakes about the availability of a product, the web page reveals the availability of a product's stock but actually does not exist.
   c. Cost/Benefits passed on the Client
      Problems with price differences compared to other vendors, buyer expectations on cost reduction. Prices of products are more expensive online than in stores (offline); the price of the product is too expensive; prices are too high and others.

4. Agreement Factor
   The agreement factor is a factor that causes failure where the company is unable to fulfill the promises made between the companies after the purchase is made. This can be seen from:
   a. Adjustability of customer profiles
      It is an inability to adjust customer profiles such as personal information, payment information and others. Cannot improve credit card information; it is impossible to delete some information, etc.
   b. Interactive Integration of Business Rules
      Is a failure of general terms and conditions, guarantees, the possibility of returning the product. Vendor cancels product orders; the services provided are not in accordance with the agreement and others.
   c. Contact possibilities with Seller
      Problems arise with vendors, for example, the help desk during the order process, late feedback times, etc. Rude customer service representatives; service decreases in quality and others.

5. Settlement Factor
   Is a failure that appears in the process of completing a transaction. Can occur due to:
   a. Tracking & Tracing Issues
      Customers are not satisfied with non-specific information regarding the search problem of the goods sent; the company does not provide tracking and tracking information; it is impossible to track the location of the product and others.
   b. Delivery Issues
      Late delivery time, no shipping, damaged product delivery; Goods arrive late; not shown when expected; late as a gift, etc.
   c. Good Integration of Generic Service
      Payments, bills, electronic contracts (prices and conditions), shopping carts, one bill for several stores; the vendor does not provide several options; can't pay it with a credit card;
the vendor does not provide effective payment options; changed separately for several products.


d. Inconvenient after-sales support

Problems with post-sale services (for example, feedback forms, guarantee forms); refuse to repair products based on guarantees and others.

Type of Action

Shammout & Haddad (2012) posits that Complaint handling can be divided into six Type of Action, as follow:
1. Service Recovery; such as service improvement
2. Service Quality; such as service quality improvement
3. Switching Cost; such as cost of exchange
4. Service Guarantee; such as warranty service
5. Service Failure; such as acknowledging the service failure
6. Perceived Value; such as acceptance of value

RFM Analysis

According to Birant (2011), RFM stands for the analysis of Recency, Frequency and Monetary value. RFM analysis is a marketing technique used to analyze customer behavior like how a customer has recently, which describes how close a customer makes a purchase (recency), how often a customer purchases (frequency), and how many customers spend money to buy goods and services (monetary). RFM analysis is a useful method for increasing customer segmentation by dividing customers into various groups for future personalization services and for identifying customers who have a greater tendency to respond to promotions.

Sentiment Analysis

Sentiment Analysis or often referred to as Opinion Mining is a technique to detect and explore subjective information in a text or document to determine sentiments about some aspects or overall contextual polarity of a text or document. The purpose of sentiment analysis is to classify sentiments in which the text / document is labeled positive, negative, or neutral as the object target. Sentiment analysis is an assessment, mood, and evaluation of an object (Padmaja, S., & Fatima, S. 2013). Padmaja & Fatima (2013) also explained that company sentiment analysis can carry out activities including:

a. Catch opinions from the rating of a product or service
b. Analyzing the development of customers, competitors and markets
c. Measure responses to company-related events and incidents
d. Monitor important problems to prevent viral effects that are negatively affected
e. Evaluate feedback in various languages

3. RESEARCH METHODOLOGY

Research using the principle of Natural Language Processing (NLP) is extracting knowledge by analyzing text with computerized, theoretical and technological processes that support it. In general, this process takes important words from each text that appears at a certain level. It even aims to achieve human processing capabilities. (Liddy, 2001; in Rachmadiansyah, 2017).
The research approach is to use sentiment analysis to determine opinions, sentiments, evaluations, receipts, attitudes and emotions towards an entity such as products, services, issues, topics and others that give rise to responses focused on positive or negative sentiments (Liu, 2012: 7). This method used to see the sentiment of complaint handling carried out by PT. X.

This study aims to provide recommendations. According to Cooper (2012) recommendations clarify what is happening now (in near-real time) and provide the best action for the future. After knowing how much predicted the influence of factors on sentiment complaint handling PT. X, researchers provide recommendations to companies to increase factors that are still low and maintain good factors.

The method of data collection in this study is Unobtrusive Measures. In the science of social science, unobtrusive measures refer to data collected in a way that does not involve direct elicitation of the subject of research (Lee, 2000: 1-2). Unobtrusive measure collects data based on second sources such as company records, absences, delays, complaints, number and quality of services.

Based on the type of investigation this study is post facto or often called comparative causal, because this research seeks information about the cause and effect of an event. According to Sukardi (2013: 165) this post facto study of the relationship between independent variables and related variables has taken place naturally and researchers with these settings want to trace back if possible what is the causal factor.

The study also uses a cross-sectional time dimension, which is a study that is carried out occasionally and captures actual environmental conditions (Cooper & Schindler, 2014). This study took place from June 2017 to June 2018 where that year PT. X. conducts customer relationship management training. The population of this study is a number of customers who make purchases at PT. X, from June 2017 to June 2018, is 32,299 users (internal data of the company PT X, accessed on November 2, 2018). The sampling technique used in this method is a non-probability sampling technique that is purposive sampling. The criteria used as research samples are:

1. PT X customers who make purchases from June 2017 to June 2018, both online and offline purchases
2. Complaining complaints through LINE @ Official PT. X, besides the media, is not used as a sample data source
3. Make a purchase at least 1 time or more products of PT. X.

In this study, the data analysis technique used to see the strong significance and influence of predictors of factors on sentiment complaint handling was logistic regression. Multinomial logistic regression is a logistic regression that is used when the dependent variable has an ordinal or nominal scale (Hosmer and Lemeshow, 2000: 260). The method used in this study is logistic regression with ordinal scale response variables with three categories, namely positive, negative, and neutral. The model used in multinomial logistic regression is:

\[
\text{Logit} (Y = 1) = \alpha + \beta_1X_1 + \beta_2X_2 + \ldots + \beta_nX_n
\]

4. RESULT AND DISCUSSION

Researchers have conducted research by analyzing natural language processing using the R program. The aim is to make predictions of the factors that influence the Sentiment Complaint
Handling on Customers Using Logistic Regression (Case Study of An Online Shoe Company).

The researcher can draw conclusions as follows:

1. Based on the character of the purchase, there are more shoes (shoes) that receive the most customer complaints compared to other products. The source of more purchases is done online rather than offline. The most actions taken were 324 Service Quality, 288 Service Failures, 158 Service Recovery, 62 Service Guarantees, 21 having Switching Cost, and 11 doing Perceived Quality. Obtained a total of 366 respondents had spending in the period of 480-570 days ago, 342 people had a spending period of 360-450 days, 108 people had spending period of 240-330 days ago, and a number of 38 people had the last spending period of 120-210 days ago. And a total of 548 respondents had the first shopping frequency, 225 had the second shopping frequency, 50 had the third shopping frequency, 17 respondents had four times the shopping frequency, and as many as 14 had five times the shopping frequency. Based on the Monetary Value of expenditures made, a total of 726 respondents shop in the range of Rp. 100,000 - 1,000,000, also obtained a number of 73 respondents with the amount of spending as much as 1,000,000 to 3,000,000, and as many as 55 people have a total expenditure of 10,000-100,000 and all of them have negative sentiment to PT. X because they’re have a bad experience and feel disappointed.

2. The researcher can find out the effect by using multinomial logistic regression. Data processing is done using R Studio. As for the dependent variable of this study is sentiment complaint handling which is ordinal scale in 3 categories, namely positive sentiment, neutral sentiment, and negative sentiment. Based on the Multinomial Logistics conducted, the results are as follows:

   a. In conducting testing to see the effect of the overall causes variable. in its category using ANOVA analysis technique, for the influence of variable causes (causes of complaints) overall the p-value (0.006463) <0.05 = α, then H0 is rejected. So that it can be concluded that the coefficients of the variable causes (causes of complaints) have a significant effect on the complaint handling sentiment as a dependent variable. Partially, it can be found that there are effects of partial causes that have the effect of negative sentiments to be neutral or positive.

   b. Next, the researchers will conduct a test to see the effect of the variable products purchased as a whole in all categories using ANOVA. By using ANOVA analysis techniques, for the influence of variables products purchased overall the p-value (0.878)> 0.05 = α, then H0 is not rejected. So that it can be concluded that the variable coefficients products purchased did not have a significant effect on the complaint handling sentiment as a dependent variable. Partially, it can be found that does not have a significant effect between product purchased of negative sentiments to be neutral or positive.

   c. Next, the researcher will conduct a test to see the effect of the variables of the way of purchasing as a whole in all categories using ANOVA. By testing to see the effect of the overall variable on its category using ANOVA analysis technique, then for the influence of the overall way of buying variables p-value (0.2473)> 0.05 = α, then H0 is not rejected. So that it can be concluded that the variable coefficient of purchase does not have a significant effect on the complaint handling sentiment as a dependent variable.

   d. Next the researcher will conduct a test to see the effect of the overall action type variables on all categories using ANOVA. In conducting tests to see the effect of the overall variable on its category using ANOVA analysis technique, for the influence of the overall type
action variable p-value \( (2.2xe-16) < 0.05 = \alpha \), then \( H_0 \) is rejected. So it can be concluded that the coefficient of type action variable has a significant effect on the complaint handling sentiment as a dependent variable. Partially, there can be found the influence of action type causes that have the effect of negative sentiments to be neutral or positive.

e. Next the researcher will conduct a test to see the effect of the overall recency variable on all categories using ANOVA. In conducting tests to see the effect of the overall recency variable on its category using ANOVA analysis technique, for the effect of the overall recency variable p-value \( (0.0001027) < 0.05 = \alpha \), then \( H_0 \) is rejected. So that it can be concluded that the coefficient of the recency variable have a significant effect on the complaint handling sentiment as a dependent variable. Partially, it can be found that there is the effect of partial recency which has the effect of negative sentiments to be neutral or positive.

f. Next the researchers will conduct a test to see the effect of the variable frequency as a whole on all categories using ANOVA. In conducting a test to see the effect of the overall frequency variable on its category using ANOVA analysis technique, then for the influence of the variable frequency as a whole p-value \( (0.03706) < 0.05 = \alpha \), then \( H_0 \) is rejected. So that it can be concluded that the variable frequency have coefficient significant effect on the complaint handling sentiment as a dependent variable. Partially, it cannot be found that there are effects of partial frequency that have the effect of negative sentiments to be neutral or positive.

g. Next, the researcher will conduct a test to see the effect of monetary variables as a whole on all categories using ANOVA. In conducting a test to see the effect of overall monetary variables on its category using ANOVA analysis techniques, for the influence of the monetary variable as a whole the p-value \( (0.5408) > 0.05 = \alpha \), then \( H_0 \) is not rejected. So it can be concluded that the monetary variable coefficient has no significant effect on the complaint handling sentiment as a dependent variable. Partially, it can be found that the influence of partial monetary has the effect of negative sentiments to be neutral or positive.

It can be concluded that the whole variables of causes, monetary, items purchased, action type, frequency and recency can affect significantly the dependent variable of neutral and positive sentiments when compared with the dependent variable of negative sentiment.

3. The general hypotheses tested is:

- \( H_0 : \beta_1 = \beta_2 = ... = \beta_7 = 0 \), (The independent variable does not significantly influence the dependent variable)
- \( H_1 : \text{At least } 1 \beta_i \neq 0, \text{ for } i = 1,2,...,7 \), (Independent variables significantly influence the dependent variable)

**Table 2:** Overall Independent Variables Testing

<table>
<thead>
<tr>
<th>Variable</th>
<th>LR Chisq</th>
<th>Df</th>
<th>Pr(&gt;Chisq)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Causes Complaint</td>
<td>11.098</td>
<td>22</td>
<td>0.97332</td>
</tr>
<tr>
<td>Product Purchased</td>
<td>16.427</td>
<td>26</td>
<td>0.92538</td>
</tr>
<tr>
<td>Way to Purchased</td>
<td>0.776</td>
<td>2</td>
<td>0.67854</td>
</tr>
</tbody>
</table>
From the results of table 2 the researcher found that the predictor variable which had a significant effect was type of action because the p-value (2e-16) < 0.05 = \( \alpha \), then H0 was rejected. So that it can be concluded that the predictor type of action variable has a significant effect on sentiment complaint handling.

4. From the overall prediction results the predictive power of all categories that has been the focus of this study

<table>
<thead>
<tr>
<th>Sentiment</th>
<th>Negative</th>
<th>Neutral</th>
<th>Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative</td>
<td>853</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Neutral</td>
<td>6</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Positive</td>
<td>3</td>
<td>0</td>
<td>14</td>
</tr>
</tbody>
</table>

From the results of the prediction above, it can be seen that the model is quite good at predicting negative and positive sentiment probabilities, although predicting the neutral sentiment probability is not good. Overall the results of the predictions are quite good.

5. In this study, the goodness of fit test is intended to be able to test the level of compatibility of all models made. First, we will test the model for causes variables, with the following hypothesis:
- H0: Model not fit / model is not suitable for use
- H1: Model is fit / model is suitable to use

The aim is to see whether the model is made according to the characteristics expected from the model in general. For this reason, the researcher calculated the multinomial regression model on all related variables.

<table>
<thead>
<tr>
<th>Goodness of fit on Model All Variables</th>
<th>( \chi^2 )</th>
<th>Df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Squared</td>
<td>1.3978</td>
<td>6</td>
<td>0.966</td>
</tr>
</tbody>
</table>

In the Goodness of Fit test, the significance level (\( \alpha \)) of 5% is used and the p-value obtained from the results in table 4.35 above, because the value p.value (0.966) > \( \alpha \) (0.05) where the higher the value of \( \alpha \), the model is more feasible to use so it can be concluded...
that H0 is rejected and H1 is accepted that the model in this study is fit / model is suitable to be used.

5. CONCLUSION AND RECOMMENDATION

Based on the conclusions that have been made, the researcher can draw conclusions from the results of the study as follows:

1. The researcher found that partially, it was found that causes variables, type actions, recency and frequency has an influence in handling complaint handling at PT X. Thus, various existing variables can be predictors of negative sentiment changes into neutral and positive sentiments. From result above companies must pay attention to the quality of products offered to customers, how the technology system works, not to slow or error. Companies must also pay attention how the warranty provided to customers, because the warranty is too short so they’re feel dissatisfied with the warranty. Companies must also pay attention how to build customer relationships because RFM functions (recency and frequency) have an influence on sentiment complaint handling so the company really has make a right approach to the customer. The type of action given by customers also influences sentiment complaint handling, therefore the company must minimize the service failure.

2. For simultaneous acquisition, it is found that only variables type of action that have a significant effect on the dependent variable of positive and neutral sentiment when compared to the dependent variable of negative sentiment. Thus, the company needs to pay attention to the related factors, to increase the effectiveness of handling complaint handling so that it can affect changes in negative sentiments into neutral and positive sentiments in the future. It means that the customer relationship management training has not been effective enough.

3. The use of the structure of the Logistic Regression model is carried out, has good predictive ability, where the model made by the researcher has been quite good at predicting negative and positive sentiment probabilities, although predicting neutral sentiment probability is not good. Where it is obtained that overall the results of the predictions are quite good.

4. Finally, based on the fit model test, it is found that the use of the multinomial regression model in all related variables is considered appropriate. Thus, the model made can explain the effectiveness of complaint handling in changing negative sentiments into neutral and positive sentiments. Thus, this model can be applied well in the existing situation.

REFERENCES


Analysis of Strategic Options on Garuda Indonesia Subsidiaries

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University of Indonesia, Indonesia

Abstract

The airline industry continues to face several significant challenges such as tight competition and rising operating expenses in line with higher traffic volumes, requiring them to develop the strategy to increase efficiency, control operating costs, and seek the opportunities to maximize revenue. Many airline companies have been diversifying their businesses in an effort to enhance their corporate performance. With the complex situations in several different activities in those business units, it will be crucial for the parent company to understand the characteristics of each business to generate the highest possible benefits from this diversification strategy. This research investigates Garuda Indonesia subsidiaries by combining the profitability and market-growth analysis. The aims of this research are to examine whether there is any business in the portfolio that creates value and discover the strategic actions that Garuda Indonesia could take for each of subsidiary. The subsidiaries investigated were low-cost carrier, maintenance repair and overhaul (MRO), catering service, ground handling service, global distribution system (GDS), and IT services company. This research found that the MRO and ground handling business are profitable and creating value for shareholders. Catering and GDS business are creating value and although they were unprofitable, they have the expectation of future growth. Moreover, the IT services and LCC business are destroying value and lack of their future growth. The strategic action recommendation is to ‘resale or restructure’ the IT services business, ‘invest and build value’ on MRO business, while ‘retain and review’ the ground handling, catering service, GDS, and low-cost carrier company.

Keywords: Airline diversification; strategic option; profitability analysis; market; growth

1. INTRODUCTION

Asia-Pacific airlines continued to face several significant challenges such as tight competition and increased cost pressures from the higher fuel prices and rising labor costs, initiating them to develop the strategy to increase efficiency and control operating costs carefully, and seek the opportunities to maximize revenue. That is the reason why airline’s business diversification has been a concern of this industry for a long time.

Initially, the airline company was built only to provide air transport services to travel passengers and freight, but along with the growth of industry the airline company have tried to diversify their primary business by establishing related industries as the
subsidiary, such as catering, maintenance repair overhaul (MRO), travel, ticketing system, and ground handling services. The subsidiaries of airline company serve as the extension of company’s strategy to obtain higher potential growth (CAPA, 2017) while supporting the company’s goals and company’s core business which is the passenger and freight service operations. Besides that, they were created to build the company’s market positioning strategy to face intense competition (Porter, 1987).

Most of the airlines’ company diversification type is related diversification, which has business with similar industry with parent’s main business (Anand, 2005) such as the Singapore Airline with its Scoot brand as a low-cost carrier and Lufthansa with Lufthansa Technik as MRO Company. Nevertheless, several airline company diversification type considered as unrelated diversification, which entering a new industry that different or lack similarities with parent’s main expertise such as Virgin Atlantic with its Virgin Media and Virgin Money. It was said that the key for successful unrelated diversification is to identify the industry with potentially strong profit, where the firm has internal capabilities to gain competitive advantage (Oakley, 2014).

Experts from various backgrounds, such as corporate finance, economics, and strategic management, have done much research related to diversification. For example, a previous study from Geringer et al. (2000) shows that diversification strategy could produce an unexpected result which has different effects that vary over time. Therefore, the fit characteristic between the parent company and its new business is important to ensure the success of diversification strategy, because a good fit could create a good value while a bad fit could destroy the company value (Campbell et al., 1995). A recent study by Redpath et al. (2016) which examined Lufthansa and Emirates, the two big airline groups, found that diversification may not generally attractive from the financial side but the strategic backgrounds behind the establishment of subsidiaries can overcome the financial concern. The fact is that the two groups operate subsidiaries as a profit center but the decision taken for each subsidiary does not just depend on the financial side, for example, the Emirates group has positive market viewpoint for each subsidiary observed, so although the parent company is encountering financial pressure, the final decision is not to divest the subsidiaries immediately.

Learned from the previous studies, the analysis of business financial performance was not taken into consideration in reviewing the success of diversification strategy in airline groups’ business. To get final strategic decisions to each business, the market and growth review is not enough, it must be combined with the financial performance analysis. Thus the strategic decision will accommodate the market side and also the financial side. In this research, the financial performance analysis of each subsidiary will be combined with the market and growth review to give strategic actions recommendations for each of PT Garuda Indonesia (Persero) Tbk (abbreviated as “Garuda Indonesia”) subsidiary, which are shown in Table 1.

<table>
<thead>
<tr>
<th>Subsidiaries</th>
<th>Market Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT Citilink Indonesia (Citilink)</td>
<td>Low-Cost Carrier</td>
</tr>
<tr>
<td>PT Garuda Maintenance Facility Aero Asia Tbk (GMF)</td>
<td>Maintenance Repair Overhaul (MRO)</td>
</tr>
<tr>
<td>PT Aerofood Indonesia (Aerofood ACS)</td>
<td>Catering Service</td>
</tr>
<tr>
<td>PT Gapura Angkasa (Gapura)</td>
<td>Ground Handling Service</td>
</tr>
</tbody>
</table>
Garuda Indonesia and its subsidiaries (Garuda Group) is one example of Airline Company with the portfolio business of related and unrelated to air transport services. Currently, each of the business units or subsidiaries contributes to a certain amount of revenue to Garuda Group and has the strategic position within the Group. However, along with developments and changes in the market and competition, from 2015 to 2017 all subsidiaries experienced declining operating margin. During the observed period, the low-cost carrier has -252% year on year negative growth, MRO has -3% year on year negative growth, catering service has -37% year on year negative growth, ground handling has -25% year on year negative growth, GDS has -2% year on year negative growth and IT service has -375% year on year negative growth. This overview then becomes a sign that Garuda Indonesia as parent company should immediately analyze and define strategic action to its subsidiaries. With the objective to help Garuda Indonesia’s management to assess its current business portfolio, this paper specific research question is to discover whether there is any business in the portfolio that creates value and discover the strategic actions that Garuda Indonesia could take for each of business.

2. LITERATURE REVIEW

The Relationship between Profitability and Growth

According to Hax et al. (1984), two of the most relevant measures of corporate performance are growth and profitability, as measured by spread (which is measured by return on equity minus cost of equity), market-to-book value (M/B) and net present value (NPV). When a business is profitable (spread is positive), it means that the return on equity exceeds the cost of equity capital, which implies that the business is creating value (therefore, M/B is greater than one) and the corresponding discounted cash flow produces a positive net present value (NPV positive). Under those conditions, growth will significantly contribute to create value at a compounding rate, and the greater the growth, the greater the value created. Exactly the opposite is true when the business is unprofitable, in which case the spread is negative, M/B is less than one, net present value is also negative, and growth is a damaging contribution that helps to accelerate the value destruction process.

The optimal strategy for ongoing businesses that are generating a return on equity below the cost of equity capital is to minimize growth, or even better, to disinvest and have negative growth. In that way, market value is maximized. Eventually, the best strategy could be a liquidation, particularly if the permissible disinvestment rates are very small. Finally, when the business is at break-even (spread is zero, M/B equals 1, and the net present value is also zero) growth does not help nor hinder value creation.

The Market-to-Book Value versus Spread as one of the important uses of the M/B model is strict as a diagnostic tool intending to position the company against its competitors in terms of economic and financial performance. This task is greatly facilitated due to the considerable amount of public information regarding the variables included in the M/B model. The annual reports and financial analysts’ studies all can be used to produce estimates for the company’s current market value, book value, return on equity, equity growth rate, and cost of equity capital. A simple way of contrasting the
profitability position of various companies is plotting the group of companies under consideration in a diagram.

**Market and Growth Analysis**

The most popular frameworks for analyzing the company’s business or product are the SWOT, BCG and Ansoff Matrix. These matrices can be used to assess internal-external factors including market prospects and growth opportunities, therefore these matrices usually helpful as strategic decision-making tools.

According to Rouse (2018), the strengths, weaknesses, opportunities and threats (SWOT) analysis is a framework to identify the internal and external factors that affect a company or business. As expressed in the name, it examines four components, strengths, weaknesses, opportunities, and threats. Strength identifies the internal factors and resources that support a company’s success. Weakness identifies the internal factors and resources that work against a company’s success. Opportunity identifies the external factors that the company can use to its success. Threat identifies the external factors that could jeopardize the company’s success.

The BCG Matrix classifies business into two variables, the market growth and market share and it divides the business into four categories, named Wildcat, Star, Cash Cow and Dog. Each category indicates that the business needs to be managed in a different way. The Wildcat category is described where the company’s business holds a low share of the market although the overall market is growing quickly. The strategy to wildcat business is to invest to gain market share. The Star category is where the overall market is growing quickly and the company’s business has a good market share. Star business should be a significant source of the parent’s company profit. They also require intensive and costly management because the rapid growth of its market will attract new competitors to enter this business. The Cash Cow category describes the business that still has a good market share but the total market is no longer growing strong. The established company will have invested to gain their place in the market and should be able to continue to exploit it successfully. The fundamental difference between a Star and Cash Cow business is that the cash cow market will no longer be an attractive one for new entrants. The Dog category describes business where the total market is not growing and the company has only a low share of the existing small market. Once a business has been finally classified as a dog, there is a clear sign that it should be abandoned and the resources might be dedicated to much more promising Wildcat situations (Shaw, 2016).

The Ansoff Matrix is a model which can be used to guide the decisions when companies have to balance the risk and opportunity in their business or product planning decision. The Ansoff matrix consists of two variables, the product and market which divided the variables into the new or existing product and new or existing market, and it divides business or product strategy into four categories which are known as market penetration, market development, new product development and diversification (Shaw, 2016). Market penetration strategy means penetrating the existing market with the existing product and it could be done through more aggressive marketing and sales campaign to the existing product. Market development means developing new markets with the existing products and this may be done through the development of new distribution channels, new retail outlets or new geographic markets for the existing products. New product development means developing new products for existing markets, it usually involves in producing and marketing a new product or new technology. The last is Diversification strategy that means developing new markets with
new products, where it could be done by through entering inexperienced business or product (Doyle, 2016).

**Previous Study**

Experts from various backgrounds, such as corporate finance, economics, and strategic management, have done much research related to diversification. For example, a previous study from Geringer et al. (2000) shows that diversification strategy could produce an unexpected result which has different effects that vary over time. Therefore, the fit characteristic between the parent company and its new business is important to ensure the success of diversification strategy, because a good fit could create a good value while a bad fit could destroy the company value (Campbell et al., 1995).

A recent study by Redpath et al. (2016) which examined Lufthansa and Emirates, the two big airline groups, found that diversification may not generally attractive from the financial side but the strategic backgrounds behind the establishment of subsidiaries can overcome the financial concern. The fact is that the two groups operate subsidiaries as a profit center but the decision taken for each subsidiary does not just depend on the financial side, for example, the Emirates group has positive market viewpoint for each subsidiary observed, so although the parent company is encountering financial pressure, the final decision is not to divest the subsidiaries immediately. Experts from various backgrounds, such as corporate finance, economics, and strategic management, have done much research related to diversification.

**Research Gap**

Learned from the previous studies, the detailed analysis of business profitability was not taken into consideration in reviewing the success of diversification strategy in airline groups’ business. To get final strategic decisions to each business, the market and growth review is not enough, it must be combined with the profitability analysis. Thus the strategic decisions will accommodate the market side and the financial side. In this research, the profitability analysis of each subsidiary will be combined with the market and growth review to give strategic actions recommendations for each subsidiary.

### 3. METHODOLOGY

The methodology outline is summarized in figure 1. This research uses secondary data for the quantitative and qualitative analysis including internal reports and annual reports from the year 2015 to 2017, recent researches, and updated industry trend reports.

For quantitative analysis, the data is analyzed to evaluate the profitability of Garuda Indonesia subsidiaries by plotting them in the “M/B-versus-spread” diagram. Next, a selected series of strategic qualitative analysis is provided for each subsidiary to analyze the market and growth prospect of each subsidiary, as referenced against business trend, SWOT, BCG and Ansoff Matrix that will be summarized in the strategic scoring system. Finally, the indicative result from strategic scoring system and profitability analysis are aligned as the basis of strategic action recommendations for each subsidiary.
4. RESULT AND DISCUSSION

**Profitability Analysis**

Garuda Indonesia subsidiaries financial data of the year 2017 are analyzed to evaluate their profitability by plotting them in the “M/B-versus-spread” diagram, as a simple way of contrasting the profitability position in terms of economic profitability and future growth expectation from shareholders. The result of the M/B-versus-spread diagram indicates that GMF is the best performer among other subsidiaries, the company places the upper-right quadrant of the matrix together with Gapura. This means GMF and Gapura are adding value to their shareholders because they are profitable and have high expectation for future growth. In upper-left quadrant, Sabre Indonesia and Aerofood ACS indicate that they are unprofitable, but their businesses are expected to be able to generate future profitability. Moreover, Citilink and Asyst are in lower-left quadrant implies that they are destroying value because of economic unprofitable and have the lack of expectation of their future growth.

![Figure 2. M/B-versus-Spread Diagram of Garuda Indonesia Subsidiaries (2017)](image)

**Market and Growth Analysis**

The market and growth analysis is firstly done by providing an overview of business trend analysis for each subsidiary. The second step starts by conducting the SWOT
analysis and BCG matrix from each subsidiary based on business trend analysis. Then, Ansoff Matrix of each subsidiary is developed based on business trend and SWOT Analysis. Finally, the results from the Ansoff matrix and BCG matrix will be the basis for the next step, the strategic scoring system. The strategic scoring system uses a scoring table, as the tools from previous research by Redpath, et al. (2016). The final score from the scoring table will determine the indicative result of each subsidiary, whether to consider resale or restructure, retain & review, invest & build value, and divest or leverage. Furthermore, the last step of this research is aligning the indicative result with the profitability analysis results that are taken into consideration to determine the strategic actions recommendation for each subsidiary.

**Table 2. Scoring Table**

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Underachiever</th>
<th>Weak performer</th>
<th>Strong performer</th>
<th>Best in class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent revenue growth (avg. 2015-2017)</td>
<td>Negative to 5%</td>
<td>6-10%</td>
<td>11-20%</td>
<td>&gt;20%</td>
</tr>
<tr>
<td>Parent profit growth (avg. 2015-2017)</td>
<td>Negative to 5%</td>
<td>6-10%</td>
<td>11-20%</td>
<td>&gt;20%</td>
</tr>
<tr>
<td>Subsidiary revenue growth (avg. 2015-2017)</td>
<td>Negative to 5%</td>
<td>6-10%</td>
<td>11-20%</td>
<td>&gt;20%</td>
</tr>
<tr>
<td>Subsidiary profit growth (avg. 2015-2017)</td>
<td>Negative to 5%</td>
<td>6-10%</td>
<td>11-20%</td>
<td>&gt;20%</td>
</tr>
<tr>
<td>Subsidiary market share</td>
<td>0-5%</td>
<td>6-10%</td>
<td>11-15%</td>
<td>&gt;15%</td>
</tr>
<tr>
<td>BCG Position</td>
<td>Dog</td>
<td>Question mark</td>
<td>Cash cow</td>
<td>Star</td>
</tr>
<tr>
<td>Historical market growth</td>
<td>Less than 0-5%</td>
<td>6-10%</td>
<td>11-15%</td>
<td>&gt;15%</td>
</tr>
<tr>
<td>Market outlook</td>
<td>Weak</td>
<td>Fairly weak</td>
<td>Fairly positive</td>
<td>Positive</td>
</tr>
<tr>
<td>Growth options available</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>(based on Ansoff Matrix)</td>
<td>(based on Ansoff Matrix)</td>
<td>(based on Ansoff Matrix)</td>
<td>(based on Ansoff Matrix)</td>
<td>(based on Ansoff Matrix)</td>
</tr>
<tr>
<td>Average Score</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Indicative result</td>
<td>1 = consider resale or restrict</td>
<td>2 = retain and review</td>
<td>3 = invest in BU and build value</td>
<td>4 = divest or leverage</td>
</tr>
</tbody>
</table>

Source: adapted from Redpath, et al. (2016)

**LCC’s Business Trend Analysis**

According to CAPA (2019), LCCs have grown rapidly and successfully within Asia-Pacific, even though there is a tight competition with the full-service airlines. From zero capacity in 1998 for almost 30% capacity of Asia-Pacific in 2018, LCCs flew about 600 million seats in 2018, contrasted with only 130 million seats in 2008. Seven Asia-Pacific markets, Thailand, India, Philippines, Malaysia, Vietnam, Indonesia, and South Korea have LCCs domestic penetration rate above 50% in 2018. Indonesia as one of those seven-markets has improved the domestic capacity LCCs penetration rate for 13% from
40% in 2008 to 53% in 2018, higher than global LCCs domestic penetration rate which is 33% in 2018. In the future, there is an opportunity for LLCs for growing in Asia-Pacific, because some countries will continue to increase their market share of LCCs penetration rate, that causing further capacity penetration for Asia-Pacific market. However, in other countries, the LCCs market share will become smaller because their short-haul capacity already has 70% of the share.

As reported by CAPA (2018), the number of Chinese travellers to Indonesia increase rapidly, which is led by Bali destination. Chinese travellers to Indonesia have increased double from 1 million in 2014 to expected 2 million in 2018, nearly 14% of 14 million total travellers to Indonesia. The China-Indonesia market increases, led by inbound tourism, become beneficial for airlines in Indonesia, such as Garuda, Lion, and Citilink. The fact was in 2016 China was the largest market source of Indonesia, while Singapore, Malaysia, and Australia, is the next three largest market source. The three-quarters of total Chinese travellers come to Bali, which means Bali is the most popular Indonesian destination for them so far. Nowadays Bali is also the two-thirds of total capacity for Indonesia-China seat. However, to support higher demand and a greater volume of tourists, infrastructure investment is required to build more visitor accommodation, increase airport capacity and expand tourist facilities (Amadeus, 2018).

Table 3. Citilink SWOT Summary

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td>The only domestic LCC that has scheduled capacity in Indonesia-China market</td>
<td>Negative operating income and operating margin</td>
</tr>
<tr>
<td>Young leet age</td>
<td>Pilot shortage</td>
</tr>
<tr>
<td>Shared resources and reputational advantage as subsidiary of Garuda Indonesia</td>
<td>Low market share</td>
</tr>
<tr>
<td>Good safety record</td>
<td></td>
</tr>
<tr>
<td>Good on time performance</td>
<td></td>
</tr>
<tr>
<td>Free Wifi onboard facility</td>
<td></td>
</tr>
<tr>
<td><strong>Opportunities</strong></td>
<td><strong>Threats</strong></td>
</tr>
<tr>
<td>Fast growing Indonesia-China market</td>
<td>Harder airline competition in Asia-Pacific market</td>
</tr>
<tr>
<td></td>
<td>Inappropriate airport facility and infrastructure</td>
</tr>
</tbody>
</table>
Indonesian government provided tax incentives to local MRO companies to help them compete with foreign competitors, because 70% of domestic airlines are still engaged with foreign MRO companies.

**Table 4. GMF SWOT Summary**

<table>
<thead>
<tr>
<th><strong>GMF</strong></th>
<th><strong>Weaknesses</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengths</strong></td>
<td>Very low global market share</td>
</tr>
<tr>
<td>Largest MRO in Indonesia</td>
<td>Tight global competition</td>
</tr>
<tr>
<td>World’s largest MRO facility for narrow body aircraft</td>
<td></td>
</tr>
<tr>
<td>Tax incentives provided by Indonesian government</td>
<td></td>
</tr>
<tr>
<td>Strong revenue growth</td>
<td></td>
</tr>
<tr>
<td>Has a safety and credibility as a global standard MRO</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Opportunities</strong></th>
<th><strong>Threats</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Strong growth of MRO demand in Asia</td>
<td>Short supply of technician and engineer</td>
</tr>
</tbody>
</table>

*Catering’s Business Trend Analysis*

The Asia-Pacific inflight catering market is anticipated to have a CAGR of 5.89% during the forecast period 2019 to 2024. Some of the driving factors of the Asia-Pacific in-flight catering market is the increase of international travel and rising living standards of aspirational travellers are (Mordor Intelligence, 2019). The rising disposable incomes and connectivity in some of the developing countries like India, Vietnam, and China have forced the Asia-Pacific market, while these markets will lead the growth in the next few years. In addition, according to trading economics (2019), the tourist arrivals in Indonesia increased by 5.22% CAGR to 1.16 million people in January 2019 from 1.10 million in January 2018. Bali was the main destination, receiving around 452 thousand tourists in January, followed by Jakarta and Batam.

Gate Gourmet, LSG Sky Chefs, Sats, Cathay Pacific Catering Service, and Emirates Group are some of the prominent players that have a strong presence in the Asia-Pacific inflight catering industry. Mergers and acquisitions, along with collaborations by the major companies, are making the market more consolidated. For example, in April 2018 Qantas sold its catering business to its global alliance partner, Emirates. Also, in January
2018, Gate Group announced a strategic joint venture with Asiana Airlines in order to expand its presence in the Korean region. Increasing R&D investments to integrate innovation with culinary excellence, in order to provide premium quality food for airline in-flight catering services, are expected to allow companies to attain better positions in the market. Moreover, the inflight catering service providers can generate higher revenues when they cater to the passengers travelling business class and higher, because they are willing to pay a premium for the better quality of food.

According to Mordor Intelligence report in 2019, the rising emphasis on customer-centric food menus is currently driving the Asia-Pacific in-flight catering market, as most of the airlines are adding new items to their menu, with the idea of providing better quality food to passengers with their preferences in mind. With the increasing air travel in this region, the induction of new destinations and new long-haul flights will likely to create future opportunities for the Asia-Pacific in-flight catering services market. However, as the airline industry struggles financially, ground handlers and caterers around the world can expect some tense contract negotiations with their distressed airline customers over the years, which could put pressure on revenues and margins (CAPA, 2018).

Table 5. Aerofood ACS SWOT Summary

<table>
<thead>
<tr>
<th>Aerofood ACS</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengths</strong></td>
<td><strong>Weaknesses</strong></td>
</tr>
<tr>
<td>Trained and experienced personnel with more than 4 decades of experience</td>
<td>Delay construction of a new production facility due to financing issues</td>
</tr>
<tr>
<td>Premium quality products</td>
<td>Low market share in town catering and oil, mining, and gas catering services market</td>
</tr>
<tr>
<td>Market leader of domestic inflight and hospital catering services</td>
<td></td>
</tr>
<tr>
<td><strong>Opportunities</strong></td>
<td><strong>Threats</strong></td>
</tr>
<tr>
<td>Increasing air travel demand, with new destinations and long-haul flight</td>
<td>Revenue and margin pressure due to contract negotiations between caterers and airline</td>
</tr>
<tr>
<td>Industrial catering service expansion</td>
<td></td>
</tr>
</tbody>
</table>

**Ground Handling’s Business Trend Analysis**

According to Globe Newswire (2018), the global ground and cargo handling services market is projected to grow at a CAGR of approximately 6% during 2017-2023. One of the major drivers for this market is modernization and expansion of airport terminals to grab the increasing passenger traffic and combat congestion. Adequate airside and terminal infrastructure is integral for efficient management of airport operations and prevents delays. Moreover, increasing cargo and passenger traffic are encouraging airports to undergo modernization and expansion activities with advanced technologies and infrastructure facilities. Terminal expansions and upgrades will ease the accommodation of a large volume of passengers and ground staff with advanced technologies.

CAPA data shows movements at airports in the Asia Pacific have grown from 5.4 million in 2008 to 1.07 billion from 2008 to 2017, a broadening of 96%. Moving to Southeast Asia, the Indonesian aviation market exploded from 360,000 movements in 2008 to more than 1.04 million in 2017, indicating 190% growth. The grown
opportunities of ground handling industry are also driven by new airports infrastructure and the renewal of existing ones, throughout Indonesia, which is raised since Angkasa Pura Airports aims to raise the total capacity of its 13 airports to 124.1 million passengers per year by 2020.

The investment in the development and improvement of Indonesian airports opens opportunities for new players and technological innovation to manage increased air traffic, improve safety, operational efficiency, enhance customer experience, upgrade security, and cut down on waiting times (Airport solutions, 2019). According to report from Future Travel Experience (2019), airlines and airports should be focusing on ten technology trends including biometrics, block chain, robotics and autonomous vehicles, artificial intelligence (AI), immersive experiences, voice technology, cyber security, onboard connectivity, assistive technology (which allows passengers to personalize the assistance they require by setting up a profile and requesting assistance in advance of their travel), and pioneering commercial partnerships (such as enabled passengers to get freshly prepared food delivered straight to their boarding gates within minutes of ordering).

Table 6. Gapura SWOT Summary

<table>
<thead>
<tr>
<th>Gapura</th>
<th>Weaknesses</th>
<th>Threats</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengths</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Certifications on excellent operational performance and safety</td>
<td>Outsourced personnel causes difficulty in maintaining service level standard</td>
<td>The needs of technological innovation to improve operational efficiency, enhance customer experience, upgrade security and cut down on waiting times</td>
</tr>
<tr>
<td>Market leader of ground services provider operating in Indonesia</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**GDS’s Business Trend Analysis**

GDS is playing at the crossroads of two growth industries, travel and technology. Travel and tourism is one of the world’s largest industries, representing for 10.4% of global in 2017 and 313 million jobs, or 9.9% of total employment GDP (WTTC, 2018). In Indonesia, according to World Travel & Tourism Council (2018), the direct contribution of travel and tourism was 3.2% of total GDP in 2017, and is forecast to rise by 4.0% in 2018, and to rise by 3.8% pa, from 2018-2028, to 3.6% of total GDP in 2028.

In accordance with the Indonesian Ministry of Tourism, Indonesia welcomed more than 14 million international visitors in 2017, which was a 21.9% increase compared with 2016. This was reflected in significant 6.2% demand growth of hotel performance, which is surpassed the country’s 3.3% supply growth for the year (Hotelier Indonesia, 2018). With the strong travel and tourism growth in Indonesia, there is an increasing demand for new customers from the online channel. The company can make an investment on the online platform which will open a new sales channel for Sabre. In the next few years, the company can leverage this opportunity by knowing its customer better and serving their needs using big data analytics.

While the GDS model for international flight markets relatively unchallenged, for domestic flights, the trend shows that heightened consumer demand for more “non-generic” ways of travel may pose a threat to GDS and offer greater opportunities for
tailor-made style travel accommodators, despite their much lower volume (Rukmasari, 2017).

Table 7. Sabre Indonesia SWOT Summary

<table>
<thead>
<tr>
<th>Sabre Indonesia</th>
<th>Weaknesses</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Strengths</strong></td>
<td></td>
</tr>
<tr>
<td>Market leader of GDS provider in Indonesia</td>
<td>Limited number of customers</td>
</tr>
<tr>
<td>The highest operating margin among other Garuda Indonesia subsidiaries</td>
<td></td>
</tr>
<tr>
<td><strong>Opportunities</strong></td>
<td><strong>Threats</strong></td>
</tr>
<tr>
<td>Strong travel and tourism growth in Indonesia</td>
<td>Data privacy regulation</td>
</tr>
<tr>
<td>Increasing demand for new customers from online channel</td>
<td>Consumer demand for tailor-made style travel accommodator</td>
</tr>
</tbody>
</table>

IT Service’s Business Trend Analysis

According to International Data Corporation (2018), Indonesia has become the largest spender on IT in Southeast Asia. To gain a competitive edge in the marketplace, the public sectors invest heavily in upgrading its internal IT infrastructure and the private sectors do so as well to enhance customer service. It is critical for both types of sectors because in 2025 Indonesia will have a massive 125 million internet users. Research by Google Temasek described that in Indonesia the e-commerce annual growth rate of revenue, CAGR 2018-2022, is 17.7% with the user penetration in e-commerce is at 11.8% in 2018 and is estimated to achieve 15.7% in 2022.

US-based research firm International Data Corporation (IDC) Indonesia reported that IT services spending will increase by 61.1% in 2020 USD 2.2 billion from the estimated of USD 1.3 billion in 2017. Meanwhile, digital finance is the fastest growing digital service, set to total USD 1.25 billion by 2022, followed by cloud services at USD 1.2 billion by 2022. Furthermore, since 2015, 75% of online purchases were made via mobile devices. This will increase ecommerce growth to USD 130 billion by 2020, also supported by Big Data analytics to support data flow transactions both domestically and internationally. In addition, there are also opportunities to expand mobile broadband coverage beyond the greater Jakarta area, increasing coverage in Western and Central Indonesia and expanding into Eastern Indonesia (Frost & Sullivan 2018). It is supported by Palapa Ring Project which involves the installation of an undersea and terrestrial cable network that covers the five main Indonesian islands, targeted in 2019.

The more new platform model will take over the traditional channels, and corporate growth is now depending significantly on cloud computing (NetApp Indonesia, 2018). Over 50% of the Indonesian population is below the age 30 of and highly adaptive to new technology (KPMG, 2018). As the digital transformation awareness is increasing, especially as the end-user is now starting to demand more efficient and high-quality service, as well as the heightened competition created by many startup players. Companies really need to step up their game, innovate, and ensure that they can still be relevant in the digital business era. Without utilizing IT and technology, there is no way they can survive (IDC, 2017). Therefore, Asyst should transform business models in a variety of industries and expand across different sectors to cater to market demand, especially for technology savvy customer. Asyst may enter the mobile device application
provider for e-commerce and financial technology (Fintech) and also expand its business to become a Cloud provider.

**Table 8. Asyst SWOT Summary**

<table>
<thead>
<tr>
<th><strong>Strengths</strong></th>
<th><strong>Weaknesses</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Wide range of IT services coverage in consulting, development, implementation and operation system</td>
<td>Weak financial performance, negative operating margin</td>
</tr>
<tr>
<td></td>
<td>75% of revenue is coming from Garuda Group</td>
</tr>
<tr>
<td></td>
<td>Very low market share</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Opportunities</strong></th>
<th><strong>Threats</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Indonesia has become the largest spender on IT in Southeast Asia</td>
<td>Nawacita program enabled a wide variety of new entrants and new business practices to emerge IT services.</td>
</tr>
<tr>
<td>Increasing of digital transformation awareness</td>
<td></td>
</tr>
<tr>
<td>Strong growth of ecommerce, digital finance and cloud services</td>
<td></td>
</tr>
</tbody>
</table>

**Industry Growth Rate and Relative Market Share**

According to CAPA (2018), Indonesian airlines increased their domestic passenger traffic growth by 8% in 2017. However, Citilink reported to have 13% market share in 2017, compare to 34% market share of Lion Air as the market leader. Thus, the relative market share of Citilink is 38.2% in 2017. In 2017 GMF achieved 34% of domestic market share and as the largest MRO in Indonesia, GMF relative market share is 100% in 2017 with 10% market growth of MRO industry in Indonesia (GBG Indonesia, 2017).

The Asia-Pacific in-flight catering market is anticipated to register a CAGR of 5.89% during the forecast period 2019 to 2024. In inflight catering services, Aerofood ACS becomes the market leader among other domestic caterers. The company has 70.7% share of international airlines market, 56.3% market share of domestic airlines market, and holds 64.4% of total inflight catering market shares in 2018. Thus, as the market leader of inflight caterers, Aerofood ACS has the relative market share of 100%.

According to Globe Newswire (2018), the global ground and cargo handling services market is projected to grow at a CAGR of approximately 6% during 2017-2023. In 2017, Gapura is the market leader of ground handling services in Indonesia, for domestic flight and international flight. Gapura holds 33% market share in domestic routes and 59% in international routes. Thus, the relative market share of Gapura is 100%.

From 2014 to 2017, Sabre is the market leader of GDS provider in Indonesia market. Sabre had 62% market share in 2017, while the competitor Galileo had 30% market share and Amadeus had 8% market share. Thus by become the market leader in Indonesia, Sabre relative market share was 100% in 2017. Furthermore, according to World Travel & Tourism Council (2018), the direct contribution of travel and tourism to GDP is forecasted to rise by 3.8% per annum, from 2018-2028.

Based on report by Frost & Sullivan (2018), Indonesian information and communication (ICT) sector experienced year-over-year growth of 9.81% from USD 34.0 billion in 2016 to USD 37.3 billion in 2017. Plays in the Indonesian market, the market share of Asyst in IT services is 0.5%, very low compare to Telkom Sigma as the
leader in this industry (taking cloud services market as the sample) which has 19% market share in 2016. Thus, the relative market share of Asyst is 2.6%.

Figure 4. BCG Matrix of Garuda Indonesia Subsidiaries

According to World Travel & Tourism Council (2018), in Indonesia, the total contribution of travel and tourism to GDP is forecasted to rise by 6.4% per year over the next ten years to 6.6% of GDP in 2028. The BCG Matrix of Garuda Indonesia subsidiaries can be seen in figure 4., where the X-axis represents market growth, with the line 6.4% is representing the average growth rate of the total contribution of travel and tourism to GDP from 2018 to 2028 and the Y-axis represents relative market share, with the two parts of market share is below 50% and above 50% share.

**Growth Strategy Options**

**Table 9.** Ansoff Matrix of Garuda Indonesia Subsidiaries

<table>
<thead>
<tr>
<th>New Product</th>
<th>Existing Market</th>
<th>New Market</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Market Penetration</td>
<td>Diversification</td>
</tr>
<tr>
<td><strong>Gapura:</strong></td>
<td>Technological innovation in ground handling such as cyber security and assistive technology</td>
<td><strong>Sabre Indonesia:</strong> Expand on online channel for tailor-made style travel accommodators</td>
</tr>
<tr>
<td><strong>Asyst:</strong></td>
<td>Entering mobile device application provider for e-commerce and financial technology (Fintech) and expand business to become Cloud provider</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Existing</th>
<th>Market Penetration</th>
<th>Product Development</th>
</tr>
</thead>
</table>
According to business trend analysis and SWOT analysis, Ansoff Matrix can be conducted. Based on the result, the growth strategy options available for each subsidiary can be seen in table 9.

**Strategic Scoring Result**

Based on the average score computed on the strategic scoring table *(see appendix B)*, we can summarize the indicative result of each subsidiary hereinafter. In summary, the strategic scoring summary indicates that Garuda Indonesia, as parent company, should retain and review Citilink, Aerofood ACS, Gapura, and Sabre Indonesia while invest and build value on GMF and consider to resale or restructure Asyst.

**Table 10. Indicative Result of Each Subsidiary**

<table>
<thead>
<tr>
<th>Subsidiary</th>
<th>Average Score</th>
<th>Indicative Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citilink</td>
<td>2,00</td>
<td>Retain and Review</td>
</tr>
<tr>
<td>GMF</td>
<td>2,67</td>
<td>Invest and Build Value</td>
</tr>
<tr>
<td>Aerofood ACS</td>
<td>2,11</td>
<td>Retain and Review</td>
</tr>
<tr>
<td>Gapura</td>
<td>2,22</td>
<td>Retain and Review</td>
</tr>
<tr>
<td>Sabre Indonesia</td>
<td>2,22</td>
<td>Retain and Review</td>
</tr>
<tr>
<td>Asyst</td>
<td>1,44</td>
<td>Consider to Resale or Restructure</td>
</tr>
</tbody>
</table>

**Align the Profitability and Market-Growth Analysis**

The last step of this research is to align the profitability analysis result, according to M/B-versus-Spread diagram, and market-growth result to determine the strategic actions recommendation for each subsidiary.
GMF was profitable and creating value, which shareholders have a future expectation on the company’s future growth. In line with the market and growth result, Garuda Indonesia should invest & build value to GMF. As the GMF vision to become the Top 10 MRO in the world, the company should be able to expand on the international market by investing on personnel capability and product development to expand the operational capacity, especially for many types of engine maintenance, wide-body aircraft maintenance and hangar for painting.

Gapura was profitable and creating value, which shareholders have a future expectation on Gapura’s growth. Since in 2017 Gapura is the market leader of ground handling services for domestic flight and international flight in Indonesia, the future technological investment trend seems to have a high risk and high capital expenditure while the market growth is forecasted only 6% per year from 2017 to 2023. So, instead of investing, the strategic action to retain & review the Gapura is more appropriate. This review of Gapura should be focused on increasing its market share in domestic and international flights flown from Indonesia.

Aerofood ACS was unprofitable but their business was expected to be able to generate future profitability. Since in 2018 Aerofood ACS is the market leader of Indonesian inflight catering with 64% share and hospital catering services with 37% share, the indicative result to retain & review the Aerofood ACS is suitable. This strategic review should be focused on increasing its market share in penetrating on industrial catering service (especially town catering and oil, mining and gas company catering) and preparing to develop new product for the growth of new destinations and long haul flight.

Sabre Indonesia was unprofitable but the business was expected to be able to generate future profitability. According to market and growth result, the strategic action is to retain & review the company. This is an appropriate strategy since Sabre Indonesia is the market leader of GDS provider in Indonesia with more than 60% market share from 2014 to 2017. This review should be focused on increasing its market share by expanding on hotel business and diversify its products on the online channel for tailor-made style travel accommodators.

Citilink was destroying value because of economic unprofitable and the lack of expectation of its future growth, caused by the hardening competition in LCCs market. The strong growth of LCC penetration rate in Indonesia, both for domestic and international markets, as reported that LCCs penetration rate in domestic was 53% while the penetration rate for international was 40% in 2018, both are higher than global LCCs penetration rate. According to market and growth result, the strategic action to retain & review is appropriate where Citilink should be focused on increasing its market share in domestic by increasing flight frequency to Bali and grab opportunity for international market share by exploring new flight on Indonesia-China routes destination (besides Kunming, Xianmen, and Nanjang) especially from Bali.

The last, Asyst was destroying value because of economic unprofitable and the lack of expectation on the future growth. According to market and growth result, the strategic action to consider resale or restructure for Asyst is suitable. By considering the market and product of Asyst, the growth strategies available for the company are to penetrate the market by more aggressive marketing and sales campaign and to create diversification by entering mobile device application and cloud computing business. The two strategies will be very hard to be done by the company because the IT infrastructure investment is so expensive while the company has a weak financial performance with the negative operating margin, it will be hard for them to attract investors. Moreover, the very low market share of the company makes a hard step for Asyst to compete on
existing market and the new market with other IT service providers in the high growth industry.

5. CONCLUSION AND RECOMMENDATION

Regarding the objectives, the conclusion and strategic action recommendation have been made through this research. The MRO and ground handling business is profitable and creating value for shareholders. Catering and GDS business are creating value, although they were unprofitable, still, have the expectation of future growth. Moreover, the IT services and LCC business are destroying value and lack of their future growth. The strategic action recommendation is to ‘resale or restructure’ the IT services business, ‘invest and build value’ on MRO business, while to ‘retain and review’ the ground handling, catering service, GDS, and low-cost carrier company.

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CAPA. (2018). Indonesia Domestic Airline Market: Rapid Growth, Rivalry Intensifies. Available online at: https://centreforaviation.com/analysis/reports/indonesia-
domestic-airline-market-rapid-growth-rivalry-intensifies-410650 (accessed 06.03.2019).


Appendix A. Subsidiaries Relative Market Share and Market Growth

<table>
<thead>
<tr>
<th>Subsidiary</th>
<th>Market Growth</th>
<th>Market Share</th>
<th>Market Share of Largest Competitor</th>
<th>Relative Market Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Citilink</td>
<td>8,0%</td>
<td>13,0%</td>
<td>34,0%</td>
<td>38,2%</td>
</tr>
<tr>
<td>GMF</td>
<td>10,0%</td>
<td>34,0%</td>
<td>34,0%</td>
<td>100,0%</td>
</tr>
<tr>
<td>ACS</td>
<td>5,9%</td>
<td>64,4%</td>
<td>64,4%</td>
<td>100,0%</td>
</tr>
<tr>
<td>Gapura</td>
<td>6,0%</td>
<td>33,0%</td>
<td>33,0%</td>
<td>100,0%</td>
</tr>
<tr>
<td>Sabre</td>
<td>3,8%</td>
<td>62,4%</td>
<td>62,4%</td>
<td>100,0%</td>
</tr>
<tr>
<td>Asyst</td>
<td>9,8%</td>
<td>0,5%</td>
<td>19,0%</td>
<td>2,6%</td>
</tr>
</tbody>
</table>
Appendix B. Subsidiaries Strategic Scoring Table

B.1. Citilink Scoring Table

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Result</th>
<th>Underachiever</th>
<th>Weak performer</th>
<th>Strong performer</th>
<th>Best in class</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent revenue growth (avg. 2015-2017)</td>
<td>3%</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Parent profit growth (avg. 2015-2017)</td>
<td>-240%</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Subsidiary revenue growth (avg. 2015-2017)</td>
<td>9%</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Subsidiary profit growth (avg. 2015-2017)</td>
<td>-265%</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Subsidiary market share</td>
<td>13%</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>BCG Position Question Mark</td>
<td></td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Historical market growth</td>
<td>8%</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Market outlook</td>
<td></td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Growth strategy options available (based on Ansoff Matrix)</td>
<td>2</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Average Score</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
</tbody>
</table>
### B.2. GMF Scoring Table

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Result</th>
<th>Underachiever</th>
<th>Weak performer</th>
<th>Strong performer</th>
<th>Best in class</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent revenue growth (avg. 2015-2017)</td>
<td>3%</td>
<td></td>
<td></td>
<td>V</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Parent profit growth (avg. 2015-2017)</td>
<td>-240%</td>
<td>V</td>
<td></td>
<td>V</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Subsidiary revenue growth (avg. 2015-2017)</td>
<td>13%</td>
<td></td>
<td>V</td>
<td>V</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Subsidiary profit growth (avg. 2015-2017)</td>
<td>12%</td>
<td>V</td>
<td>V</td>
<td>V</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Subsidiary market share</td>
<td>34%</td>
<td></td>
<td></td>
<td>V</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>BCG Position</td>
<td>Star</td>
<td></td>
<td></td>
<td>V</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Historical market growth</td>
<td>10%</td>
<td>V</td>
<td></td>
<td>V</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Market outlook</td>
<td>Positive</td>
<td></td>
<td></td>
<td>V</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Growth strategy options available (based on Ansoff Matrix)</td>
<td>1</td>
<td>V</td>
<td></td>
<td>V</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Average Score</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2.67</td>
</tr>
</tbody>
</table>
## B.3. Aerofood ACS Scoring Table

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Result</th>
<th>Underachiever</th>
<th>Weak performer</th>
<th>Strong performer</th>
<th>Best in class</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent revenue growth (avg. 2015-2017)</td>
<td>3%</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Parent profit growth (avg. 2015-2017)</td>
<td>-240%</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Subsidiary revenue growth (avg. 2015-2017)</td>
<td>-1%</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Subsidiary profit growth (avg. 2015-2017)</td>
<td>-30%</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Subsidiary market share</td>
<td>64%</td>
<td></td>
<td>V</td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>BCG Position</td>
<td>Cash Cow</td>
<td>V</td>
<td></td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Historical market growth</td>
<td>6%</td>
<td></td>
<td>V</td>
<td></td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Market outlook</td>
<td>Fairly Positive</td>
<td>V</td>
<td></td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Growth strategy options available (based on Ansoff Matrix)</td>
<td>2</td>
<td></td>
<td>V</td>
<td></td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Average Score</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2,11</td>
<td></td>
</tr>
</tbody>
</table>
### B.4. Gapura Scoring Table

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Result</th>
<th>Underachiever</th>
<th>Weak performer</th>
<th>Strong performer</th>
<th>Best in class</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent revenue growth (avg. 2015-2017)</td>
<td>3%</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Parent profit growth (avg. 2015-2017)</td>
<td>-240%</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Subsidiary revenue growth (avg. 2015-2017)</td>
<td>7%</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Subsidiary profit growth (avg. 2015-2017)</td>
<td>1%</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Subsidiary market share</td>
<td>33%</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>BCG Position</td>
<td>Cash Cow</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Historical market growth</td>
<td>6%</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Market outlook</td>
<td>Fairly Positive</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Growth strategy options available (based on Ansoff Matrix)</td>
<td>2</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Average Score</td>
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<td></td>
<td></td>
<td></td>
<td>2.22</td>
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</table>
### B.5. Sabre Indonesia Scoring Table

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Result</th>
<th>Underachiever</th>
<th>Weak performer</th>
<th>Strong performer</th>
<th>Best in class</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent revenue growth (avg. 2015-2017)</td>
<td>3%</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Parent profit growth (avg. 2015-2017)</td>
<td>-240%</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Subsidiary revenue growth (avg. 2015-2017)</td>
<td>8%</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Subsidiary profit growth (avg. 2015-2017)</td>
<td>6%</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Subsidiary market share</td>
<td>62%</td>
<td></td>
<td>V</td>
<td></td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>BCG Position</td>
<td>Cash Cow</td>
<td></td>
<td>V</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Historical market growth</td>
<td>4%</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Market outlook</td>
<td>Fairly Positive</td>
<td></td>
<td>V</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Growth strategy options available (based on Ansoff Matrix)</td>
<td>2</td>
<td></td>
<td>V</td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Average Score</td>
<td></td>
<td></td>
<td></td>
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<td>2.22</td>
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### B.6. Asyst Scoring Table

<table>
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<th>Result</th>
<th>Underachiever</th>
<th>Weak performer</th>
<th>Strong performer</th>
<th>Best in class</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent revenue growth (avg. 2015-2017)</td>
<td>3%</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Parent profit growth (avg. 2015-2017)</td>
<td>-240%</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Subsidiary revenue growth (avg. 2015-2017)</td>
<td>-5%</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Subsidiary profit growth (avg. 2015-2017)</td>
<td>-487%</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Subsidiary market share</td>
<td>0.5%</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>BCG Position</td>
<td>Question Mark</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Historical market growth</td>
<td>10%</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Market outlook</td>
<td>Weak</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Growth strategy options available (based on Ansoff Matrix)</td>
<td>2</td>
<td>V</td>
<td></td>
<td></td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Average Score</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>1.44</td>
</tr>
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</table>
## Appendix C. Subsidiaries Operating Margin

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Citilink</td>
<td>2,2%</td>
<td>-0,6%</td>
<td>-7,9%</td>
<td>-8,8%</td>
<td>-252,0%</td>
</tr>
<tr>
<td>GMF</td>
<td>16,6%</td>
<td>21,4%</td>
<td>15,0%</td>
<td>11,1%</td>
<td>-3,3%</td>
</tr>
<tr>
<td>AWS</td>
<td>4,0%</td>
<td>4,0%</td>
<td>1,0%</td>
<td>1,2%</td>
<td>-37,0%</td>
</tr>
<tr>
<td>Gapura</td>
<td>6,5%</td>
<td>3,3%</td>
<td>2,8%</td>
<td>5,0%</td>
<td>-24,7%</td>
</tr>
<tr>
<td>Sabre</td>
<td>23,0%</td>
<td>29,4%</td>
<td>21,4%</td>
<td>18,8%</td>
<td>-2,4%</td>
</tr>
<tr>
<td>Asyst</td>
<td>1,2%</td>
<td>11,1%</td>
<td>-25,3%</td>
<td>1,7%</td>
<td>-374,8%</td>
</tr>
</tbody>
</table>
Investment Strategy of New Colorant Project at PT. YY

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Institut Teknologi Bandung, Indonesia

Maryat Nirwandi
Institut Teknologi Bandung, Indonesia

Abstract

PT. YY is one of the paint manufacturers in Indonesia. Based on internal and external analysis at PT. YY, the SWOT components will be obtained and analyzed using IFAS and EFAS analysis and Grand Strategy Matrix to get the position of the company in the market. The results indicate that PT. YY needs to develop the strengths to build a stronger market and new investment in colorant project. The purpose of this paper is to provide a feasibility study for the colorant project by comparing two scenarios. The first scenario is PT. YY produces colorant for internal use, and the second scenario is PT. YY produces and sells colorant products. The results of the feasibility study will be represented by Net Present Value (NPV), Internal Rate of Return (IRR), Payback Period and Profitability Index values of the project and the equity. The best scenario for this investment is the first scenario which is more profitable and gives a positive result in NPV, IRR, Profitability Index and low Payback Period compared to the second scenario to sell colorant to other paint companies. PT. YY strengths in colorant innovation will reduce costs and improve the quality of good paint colors. The colorant project has a positive value for PT. YY.

Keywords: grand strategy matrix; net present value; internal rate of return; payback period; profitability index

1. INTRODUCTION

Paint and coatings are used to decorate or protect an object. Paint consists of the binder as the main component, solvent, pigments to give the color of the paint, and additives to improve the quality of paint. The products of the paint industry can be classified as decorative and industrial paint. According to The Asia Pacific Report Coatings World 2017, Asia dominated 45% of the coatings industry in the world (Coatings World, 2017). In the past few years, Asia-Pacific's coatings industry growth has become a magnet of the industry. Indonesia as one of South-East Asia countries with the largest population become a potential market for the paint industry. The increase of Gross Domestic Product and infrastructure development in Indonesia has given a
significant impact on the growth of the paints industry since the year 2016. Indonesia’s paint and coatings market taking up 70% to 80% market share were dominated by local brands.

PT. YY is a paint manufacturing company. The company was founded in 1983 in Bandung. In 1993, the second generation leadership made a breakthrough innovation in-licensing agreement with international paint company in the United States. Later in 2011, the company began to produce the other paint products for the medium segment. Nowadays, PT. YY has branch offices in fourteen cities across Indonesia. The function of the branch offices is distribution channels for paint products to traditional paint market, building materials stores, and modern markets. PT. YY as one of the paint companies has a chance to take opportunities in Indonesia paint market and provides decorative paint for low, medium and premium segment. The competition in the Indonesia paint market is very high. There are many new entrants and foreign investment manufacturers in this market. This intense competition has an impact on the decrease in PT. YY sales. The purpose of this research is to identify the factors of external and internal which contributed to the diminishing of the sales as well as assessing a new investment in colorant project to improve company competitive advantage with two scenarios. The first scenario is PT. YY produces colorant for internal use, and the second scenario is PT. YY produces and sells colorant products. This paper is divided into four segments which are as follows: introduction, literature review, result and discussion, and the last is conclusion and recommendation. The first segment explains the background of the paint industry, company profile and the problem identification of this research. Literature review contains theoretical background which used as the foundation for the research. In the result and discussion segment, the Researchers will explain the conceptual framework as the method to identify the internal and external factors in the company. It will be determined the business strategy of the company. The financial feasibility study will be conducted to identify the best scenario to improve the competitive advantage of the company. The conclusion and recommendation will explain the solution for the research.

2. LITERATURE REVIEW

External Analysis

Political, Economic, Social, Technological Analysis (PEST)

The PEST analysis is a simply another tool to help the organization detect and monitor those weak signals in the hope of recognizing the discontinuities or fractures shaping the environment. PEST analysis can be used to help detect trends in the external environment that will ultimately find their way into the competitive environment (Henry, 2008). The underlying thinking of the PEST analysis is that the enterprise has to react to changes in its external environment. This reflects the idea that strategy requires a fit between capabilities and the external environment and so it is necessary for an enterprise to react to changes (Gupta, 2013).

Porter’s Five Forces Analysis

The five forces framework is a rigorous approach to looking at industries and where organizations stand in relation to their industry. It enables an organization to determine the attractiveness or profit potential of a particular industry by examining the interaction of five competitive forces. The five forces are threat of new entrants, bargaining power of buyers, bargaining power of suppliers, threat of substitute products or services, and intensity of rivalry
among firms in an industry (Henry, 2008). The increased globalization has led to high demand for information about the foreign market, competitors, potential entrants, customers, suppliers, and substitutes. (Indiatsy, Mwangi, Mandere, Bichanga, & George, 2014).

Internal Analysis

Valuable, Rare, Inimitable, Organized to Capture Value Analysis (VRIO)

VRIO analysis is a tool to analyze a company’s resources from an internal side to know the company’s competitive advantage. The VRIO framework can be used to gather information at the organizational level so it lends itself to studies that could be generalizable (Jugdev, 2016). VRIO analyses based on a few factors are:

Valuable
Can company resources add value to the company? If resources could add the value of the company, then these resources are valuable.
In the paint industry, company resources both tangible and intangible add to the value of the company, because all these resources are used to create products that provide competitively.

Rare
If the company has unique resources, the company will have a temporary competitive advantage. But if the resources and strategies are the same for all the companies, the company will have a competitive advantage of parity.

Inimitable
If other companies are difficult to imitate because it has unique and expensive resources, then the company has a sustainable competitive advantage. The differences between existing firms and new entrants are capital. The big company will have large capital, and they can do many marketing strategies to introduce products to the market. If the company has low capital, it can still run its business but on a smaller scale.

Organized to Capture Value
Companies must manage all the resources to produce good quality products. Management systems must support the cooperation of all parties in a competitive advantage for the company.

Value Chain Analysis

Value chain analysis is a technique which helps us assess an organization’s resources and in so doing determine its strengths and possible weaknesses. Value chain analysis looks at the activities that go to make up a product or service with a view to ascertaining how much value each activity adds (Henry, 2008). Each primary activity creates value while at the same time also creating costs. (Enders, Konig, Hungenberg, & Engelbertz, 2009). Based on the observed, that even experienced managers have difficulties connecting the analysis of the internal value chain with the analysis of the five forces that shape an industry’s structure, and they frequently struggle to explain why unique strategic positioning is crucial to business success (Enders, Konig, Hungenberg, & Engelbertz, 2009).
**Strategic Management Approach**

**SWOT Analysis**
SWOT analysis refers to strengths, weaknesses, opportunities, and threats. Strengths and weaknesses refer to the organization’s internal environment over which the firm has control. Opportunities and threats refer to the organization’s external environment, over which it has much less control (Henry, 2008). SWOT Analysis will show the internal and external factors of the company, so the company can determine the best strategy for the business. The merit of SWOT as the leading tool for strategic analysis lies in its simplicity and clarity: scrutiny of internal strengths and weaknesses is followed by analysis of external opportunities and threats, enabling the company’s management to seek markets or business opportunities that create value and identify potential events that threaten its value or position (Alex Coman, 2009). When used SWOT, there is no possibility of a comprehensive evaluation of the strategic decision-making situations (Oreski, 2012).

**TOWS Matrix**
SWOT analysis becomes a useless exercise if it is not extended to TOWS where the strengths are used to capitalize on opportunities and to counter threats, the weaknesses are minimized using opportunities and both weaknesses and threats are avoided (Ranavar & Charantimath, 2012). TOWS Matrix helps decision makers in companies to match the external and internal factors of the company so that these factors can support each other and give good solutions for the company. The factors should be studied in different order such as: first the external factors (threats and opportunities) and then the internal ones (weaknesses and strengths) (Kowalik & Dorota, 2017). The following is the TOWS Matrix Table.

**Table 1. TOWS Matrix**

<table>
<thead>
<tr>
<th>Internal Factors Analysis Summary (IFAS)</th>
<th>Strengths (S)</th>
<th>Weaknesses (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Factors Analysis Summary (EFAS)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunities (O)</td>
<td>SO Strategies</td>
<td>WO Strategies</td>
</tr>
<tr>
<td>Threats (T)</td>
<td>ST Strategies</td>
<td>WT Strategies</td>
</tr>
</tbody>
</table>

**Grand Strategy Matrix**
Grand Strategy Matrix is one of the tools for determining alternative corporate strategies with competitive position as X-factor and market growth as Y-factor. Any organization be in any situation, they are in one of the houses belonging to grand strategy matrix (Eyvrigh, 2016). The key role of grand strategy is to co-ordinate and directs all the resources of a firm towards the attainment of its goal and objectives and vision (Kavale & Mugambi, 2016).
**Financial Analysis**

**Net Present Value (NPV)**

The Net Present Value (NPV) method as an investment appraisal or capital budgeting technique shows how an investment project affects company shareholders’ wealth in present value terms (Jory, 2016). The difference between an investment’s market value and its cost is called the net present value. In other words, Present Value is a measure of how much value is created or added today by undertaking an investment (Ross, Westerfield, Jordan, Lim, & Tan, 2012). Survey results indicate that the use of the NPV method as a primary method, and the sophistication of the firms capital budgeting, are linked both to firm characteristics (size), variables proxying for real option features in the firms investment projects, but also to CFO characteristics (age and education). (Brunzell, Liljeblom, & Vaihekoski, 2011). Net Present Value is an evaluating projects method to know the value added today by undertaking an investment in a company. It will show the difference between the market value and the costs of the investment. All stakeholders and investors hope the project can return the capital that they have to spend on investment projects. Investment projects which have a high rate of return will increase the value of the company through the view of investors rather than projects with lower returns.

The NPV results by subtracting a project’s initial investment ($C_{F_0}$) from the present value of its cash inflows ($C_{F_i}$) discounted at a rate equal to the firm’s cost of capital ($r$).

\[
NPV = \sum_{i=1}^{n} \frac{C_{F_i}}{(1+r)^{i}} - C_{F_0}
\]

The decision criteria for Net Present Value if the NPV is positive or greater than zero, accept the project. If the NPV is negative or less than zero, reject the project.
**Internal Rate of Return (IRR)**

The IRR is closely related to NPV. With the IRR, we try to find a single rate of return that summarizes the merits of a project. Furthermore, we want this rate to be an “internal” rate in the sense that it depends only on the cash flows of a particular investment, not on rates offered elsewhere (Ross, Westerfield, Jordan, Lim, & Tan, 2012). NPV, IRR are considered as modern methods which are generally used by the big firms, according to the previous research studies done on this strong part of financial management (Shahana Jabeen, 2017).

The number of Internal Rate of Return depends on the cash flows of the project. Internal Rate of Return will equate the NPV of an investment opportunity with zero. The present value of future cash flow will be equal with the initial investment.

The Internal Rate of Return (IRR) equation is as follows:

$$ S_0 = \sum_{t=0}^{N} \frac{CF_t}{(1 + IRR)^t} - CF_0 $$

When IRR is greater than the cost of capital, accept the project. If the IRR is less than the cost of capital, reject the project. Project with the highest IRR will be the most profitable project.

**Payback Period**

The payback period is the amount of time required for the firm to recover its initial investment in a project. Payback period is calculated from dividing the initial investment by the annual cash inflow. According to McLaney, the payback period method is a method which is used to find the duration or the period the projects will generate sufficient cash inflows to payback the cost of such Capital (E.J, 2000). Payback Period must be compared to the company’s internal decision on an acceptable range. When Payback Period is less than the maximum acceptable payback period, accept the project. If Payback Period is greater than the maximum acceptable payback period, reject the project.

**Profitability Index (PI)**

Profitability Index is another tool to evaluate the investment project. It created the value per Rupiah invested. Profitability Index refers to the present value of cash inflows and returns generated at a required rate of return (Nyarombe, Kipyegon, Kamar, & Gwaro, 2015). PI has calculated the present value of future cash flow divided by initial investment.

The Profitability Index (PI) equation is as follows:

$$ PI = \frac{\sum_{t=1}^{n} \frac{CF_t}{(1 + r)^t}}{CF_0} $$

If the PI is greater than 1, accept the project. If the PI is less than 1, reject the project.
3. RESULT AND DISCUSSION

The research will explain the external environmental factors in Indonesia’s paint industry. The external analysis will discuss political, economic, social, and technological factors to analyze the macro environment of the business company. Porter’s Five Forces and Competitors analysis will be used to identify the opportunities, the threats, and the competitors in Indonesia market. Furthermore, we also will analyze the internal factors of the company with VRIO and Value Chain Analysis. Based on the external and internal analysis, we can analyze the SWOT, EFAS-IFAS analysis, TOWS Matrix and create Grand Strategy Matrix of the company. As the results, we will identify the market position of the company and capture the best strategy formulation for the company. The primary data for research is collected using qualitative methods such as observation, Focus Group Discussion, and interviews with related parties. The secondary data is collected using company documents, literature study, and industry data.

![Conceptual Framework](image)

**Figure 2. Conceptual Framework**

*External Analysis*

*PEST Analysis*

The factors of PEST analysis are:
1. Political Factors

Indonesia is one of the largest democratic countries in the world with a stable political environment. It will affect the growth of business in multiple industries including paint industry in Indonesia. The political factors in the paint industry are:

- Indonesia’s Finance Ministry issued a regulation, (PMK) No 241/PMK.011/2010 about the imposition of import duty on imports. It gives effect for national paint industry because most of the paint companies import raw materials for paint production.
- ASEAN-China Free Trade Agreement (ACFTA) influences the competitiveness of the national paint industry because imported products are not subject to tariffs.
- The implementation of the Indonesia One Million Houses Program for the period 2015 to 2019, which was inaugurated by Indonesian President Joko Widodo, is about housing for low-income families. This housing infrastructure development program provides opportunities for Indonesia paint industry.

2. Economic Factors

There are few economic key factors which drive the growth of the paint industry in Indonesia. The economic factors are:

- High Growth of Gross Domestic Product in Indonesia. Indonesia ranked 16th in the world GDP (Databank Worldbank, 2017). Gross Domestic Product is the total market value of all final goods and services produced in a country in a year. The increase and decrease in Gross Domestic Product show the size of a country’s economic growth. The growth of Indonesia construction sector in residential, nonresidential, commercial and government infrastructure has given effect to the growth of decorative paints and coatings market in Indonesia.
- Bank Indonesia and the Central Government has been maintained Indonesia inflation over the past five years. Indonesia inflation shows positive effects and encouraging economic development to be better and creating a positive investment climate. According to Focus Economics Indonesia about Indonesia Economic Data, Indonesia inflation rate are as follows (Focus Economics, 2018).

Table 2. Indonesia Inflation Rate Data (2013-2017)

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflation Rate (CPI, annual variation in %, eop)</td>
<td>8.1</td>
<td>8.4</td>
<td>3.4</td>
<td>3.0</td>
<td>3.6</td>
</tr>
</tbody>
</table>

Source: Focus Economics Indonesia, 2018

- The decline of Indonesia interest rate will give effect to the increase in liquidity funds in Indonesia. Indonesia interest rate table is as follows (Focus Economics, 2018).

Table 3. Indonesia Interest Rate Data (2013-2017)

<table>
<thead>
<tr>
<th>Year</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Policy Interest Rate (%)</td>
<td>7.50</td>
<td>7.75</td>
<td>7.50</td>
<td>4.75</td>
<td>4.26</td>
</tr>
</tbody>
</table>

Source: Focus Economics Indonesia, 2018
3. Social Factors
Social factors will give impact to consumer behavior in purchased paint products. A paint company needs to determine its business based on the following social factors, such as demographics, income distribution, lifestyle changes, and other social factors. The increase of Indonesian living standards and the increase of people education will affect the trend in the paint industry. The customers prefer to choose paints products which offer uniqueness of color and additional benefits such as easy to clean, waterproofs, etc.

4. Technological Factors
The development of technological factors in the paint industry provides new technology in green technology. Green technology is the implementation of paint materials and processes to reduce the substances hazardous to human health and create technology for environmentally friendly paints.

a. Structural Analysis of Industry (Porter’s Five Forces)
Michael Porter created Porter’s Five Forces model as an analysis tool for the structural analysis of industries to understand the competitiveness of the business environment. Porter’s Five Forces analysis will help the industry identify all the challenges and threats of the paint industry. According to Michael E. Porter, the competition in an industry depends on five basic competitive forces.

The five basic competitive forces are:
The Threat of New Entrants
- The new entrants will increase the competition in the paint industry because they will make similar products and it will increase their products in the market and reduce the level of profits from existing companies. Below are the major sources of barriers to entry:
  - Economies of Scale
    The new entrants can start their business in small or large volume scale.
    The barriers economies of scale are low for new entrants in the paint industry.
  - Capital Requirements
    The new entrants in the home paint industry do not need a large capital for production.
    The capital requirement barrier is low.
  - Product Differentiation
    Differentiation of products provides a competitive advantage for the company. The new entrants will need to be ready to cope with existing companies which have the loyalty of customers. The new entrants must introduce their products through advertisements. Product differentiation is medium.
  - Access to distribution channels
    The new entrants on a small-scale company will difficult to establish their products through distribution channels. But the large-scale newcomers more easily to establish comprehensive distribution channels. Access to the distribution of the barrier channel is medium.
  - Costs advantages independent of the scale
    In Indonesia’s paint industry, there is no significant limit between new entrants and existing companies in cost advantages. The new entrants can create products according to their segment target. Cost advantages independent of the scale is medium.
  - Government Policy
The Indonesia Government has tried to increase foreign and domestic investments in Indonesia. Government policy such as tax policy provides a tax holiday facility for foreign investors who invest more than one Trillion Rupiahs with high labor absorption. This policy has given an impact for the foreign investors to invest in Indonesia. The government policy made the threat of new entrants is high.

5. The Bargaining Power of Buyers

The Indonesia paint market has a lot of local brands besides all foreign brands which entering the market. So, buyers have many choices of paint products and where to purchase them. Good price, good quality, and other product excellence will become the indicators of the strengths of paint products. The bargaining power of buyers is high.

6. The Bargaining Power of Suppliers

The bargaining power of suppliers is represented by the power of suppliers to raise the price of purchased goods as the source of raw materials have to procured from overseas. The bargaining power of suppliers is medium.

7. The Threat of Substitute Products

According to Porter, by placing a ceiling on the prices organizations in the industry can profitably charge and substitutes limit the potential returns of an industry. Substitute products of wall paint are wallpaper, ceramics, or granite. But, wall paint is relatively less efficient than other substitute products. The threat can be classified as a low threat.

8. Competitive Rivalry among Existing Firms

Indonesia is the fourth most populous country in the world and has become the largest paint market in Southeast Asia. The current condition of Indonesia the market is a proactive business which shows the competition between large foreign paint manufacturers and national players with large amounts of capital. The companies compete to increase a strong brand identity to reach brand awareness. The purpose of the competition is to capture the biggest market share in Indonesia. The high intensity of rivalry among existing companies in Indonesia has made business competition more difficult which lead to price and quality competition. The profits obtained by the company will decrease because of the difficulty in increasing or maintain market shares in Indonesia.

Factors that influence the competitive rivalry among existing firms are:
1. A large number of competitors in the paint industry

Based on data from Marketeers' association in 2018 (Bachdar, 2018), foreign companies began investing in Indonesia, such as:
- Asian Paint built a factory in Karawang with funds of US$ 30-50 Million.
- PT. ICI Paints Indonesia (AkzoNobel) built a new factory of US$ 30-50 Million.
- PT. Avia Avian Indonesia conducts an IPO by targeting 3 Trillion Rupiahs for company expansion.
- TOA Group originating from Thailand will begin investment in Indonesia in the year 2019.

Based on the data above, we can see the huge capital inflow has increased the intensity of competition, especially for low capital business.
2. The growth of the paint industry

Based on the Coatings World association's data, the factors that influence the development of the Indonesian paint industry are Indonesia's population and rapid trends in the urbanization of around 57% (Singh, 2018). These factors will increase the growth of infrastructure and increase demand for paint and coatings in Indonesia.

3. Customers loyalty

Customers have many opportunities to choose the desired paint products. If the customers are satisfied with the paint products, it will increase customer loyalty. So, it is crucial for paint companies to improve brand awareness to the public and also maintain the quality of the paint products.

4. Product differentiation

The paint products differentiation strategy will give advantages to the company because those paint products will have distinctive characteristics. This distinctive characteristic will help the customer to distinguish them from others. The development of innovation and technology in product differentiation will add the benefits of paint products. This differentiation strategy can also be a solution to overcome saturation that occurs in the market. The competition in Indonesia paint industry is very intense, foreign investment companies and new entrants make strategies by innovating new products, pricing strategy, expand distribution network to all regions of Indonesia, development of paint technology, implementing marketing strategies such as advertising, giving discounts to distribution channels and other marketing activities to maintain competitiveness in the market.
i. Competitors Analysis

### Table 4. Competitors Analysis of PT.YY

<table>
<thead>
<tr>
<th></th>
<th>PT.ICI (AkzoNobel)</th>
<th>Nippon Paint Holdings Co.</th>
<th>PT. Avia Aviant</th>
<th>PT. Mowilex Indonesia</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Category</strong></td>
<td>Multi-National company</td>
<td>Multi-National company</td>
<td>National company</td>
<td>National company</td>
</tr>
<tr>
<td><strong>Country of Origin</strong></td>
<td>Amsterdam</td>
<td>Japan</td>
<td>Indonesia</td>
<td>Indonesia</td>
</tr>
<tr>
<td><strong>Founded</strong></td>
<td>The Year 1971</td>
<td>The Year 1969</td>
<td>The Year 1978</td>
<td>The Year 1970</td>
</tr>
<tr>
<td><strong>Paint Segment</strong></td>
<td>Premium, medium</td>
<td>Premium, medium, low</td>
<td>Premium, medium, low</td>
<td>Premium, medium</td>
</tr>
<tr>
<td><strong>Resources</strong></td>
<td>Mega-site factory with huge capacity</td>
<td>Factories in multiple areas in Indonesia</td>
<td>Vertical integrated company</td>
<td>Factory and head office in Jakarta</td>
</tr>
<tr>
<td><strong>Company Strategy</strong></td>
<td>Color Trend of The Year</td>
<td>Painters Gathering</td>
<td>IPO in 2019</td>
<td>Mowilex Style and Décor Commercial Design Award</td>
</tr>
<tr>
<td></td>
<td>Marketing strategy 360 degree</td>
<td>New product innovation</td>
<td>Alliance with Selleys DGL</td>
<td>Reliable quality</td>
</tr>
<tr>
<td></td>
<td>Dulux consultant service</td>
<td>Second Brand</td>
<td>Avian Innovation Center Lab</td>
<td></td>
</tr>
<tr>
<td><strong>Company Strengths</strong></td>
<td>Foreign company with large capital</td>
<td>Foreign company with large capital</td>
<td>National company with large capital</td>
<td>National company with large capital</td>
</tr>
<tr>
<td></td>
<td>Distribution channel spread across Indonesia</td>
<td>Distribution channel spread across Indonesia</td>
<td>Distribution channel spread across Indonesia</td>
<td>Distribution channel spread across Indonesia</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Competitve price</td>
<td></td>
</tr>
</tbody>
</table>

Source: Researchers, 2018
### Internal Analysis

#### VRIO Analysis

**Table 5. VRIO Analysis of PT.YY**

<table>
<thead>
<tr>
<th>Resource Capabilities</th>
<th>Valuable</th>
<th>Rare</th>
<th>Imitable</th>
<th>Organized to Capture Value</th>
<th>Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing machines and equipment</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>Competitive Party</td>
</tr>
<tr>
<td>Tinting machines technology</td>
<td>YES</td>
<td>NO</td>
<td>YES</td>
<td>YES</td>
<td>Competitive Party</td>
</tr>
<tr>
<td>The License Agreement of premium product</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>Sustainable Competitive Advantage</td>
</tr>
<tr>
<td>Experienced and capable employees</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>Competitive Party</td>
</tr>
<tr>
<td>Colorant Innovation</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>YES</td>
<td>Sustainable Competitive Advantage</td>
</tr>
<tr>
<td>A good relationship with suppliers</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>Competitive Party</td>
</tr>
<tr>
<td>A good relationship with channels and customers</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>Competitive Party</td>
</tr>
<tr>
<td>Good reputation</td>
<td>YES</td>
<td>NO</td>
<td>NO</td>
<td>YES</td>
<td>Competitive Party</td>
</tr>
</tbody>
</table>

*Source: Researchers, 2018*
Value Chain Analysis

Value chain activities of PT. YY are:

1. Primary Activities

   Primary activities are all activities related to creating goods and selling goods to customers. Categories in primary activities are inbound logistics (raw material handling, warehousing, inventory control, vehicle scheduling, and returns to supplier), operations (machining, packaging, testing, and facility operations), outbound logistics (warehousing, material handling, delivery, order processing, and scheduling), marketing and sales (advertising, promotion, sales force, channel selection, channel relations, and pricing), and service.

2. Support Activities

   Support activities are all activities that support the primary activities effectively and efficiently. Category of support activities is procurement, technology development, human resource management, and firm infrastructure.

SWOT Analysis

After conducting an external and internal analysis, the Researchers have identified the conditions of the company in the market. Previous research indicated a correlation between Industry Key Success Factors (IKSF), Company Key Success Factors (CKSF), and SWOT analysis in order to formulate a business strategy to achieve the company’s vision and mission in the future. Key success factors are important factors in an industry which can be used as an analytical tool to identify industry characters in the competition. The results of the analysis in PEST, Porter’s Five Forces and Competitors Analysis will show Industry Key Success Factors. VRIO and Value Chain analysis will show Company Key Success Factors.

Based on the IKSF and CKSF analysis, the following are the results from the Strengths, Weaknesses, Opportunities, and Threats of PT. YY.

Strengths
1. The license of premium products from the international paint company.
2. Good paint innovation.
4. Good distribution management.
5. Fast complaint service.

Weaknesses
1. Tinting machine technology has adopted by large paint companies.
2. Inefficient production process.
3. PT. YY has not had channels in eastern Indonesia yet.
4. Low brand awareness of PT. YY products.
5. PT. YY price is much higher compared to other companies.

Opportunities
1. Indonesia One Million Houses Program in the year 2015-2019.
2. The growth of Indonesia infrastructure.
3. PT. YY paint products based on green technology which is environmental friendly products.
4. Paint is more favorable than substitute products.
5. Indonesia inflation rate is stable in the last few years.

Threats
1. Tax holiday facility for foreign investors will open the opportunities for new entrants in Indonesia.
2. ASEAN-China Free Trade Agreement gives a policy that imported products are not subject to tariffs.
3. Buyers have many choices of paint products and where to purchase them.
4. There are many paint companies which are involved in Indonesia’s market competition.
5. Competitors offer more competitive pricing strategies.

External Factor Analysis Summary (EFAS) and Internal Factor Analysis Summary (IFAS)
The purpose of EFAS and IFAS analysis determines strengths, weaknesses, opportunities and threats factors after weighing and rating all the components. Focus Group Discussion has conducted whose participants are the Director, Factory Head, Marketing Manager, Finance Manager, and Human Resource Manager. The topics of this discussion are the strengths, weaknesses, opportunities, and threats of PT. YY. To represent the condition of the company, every participant was asked to give a rating for the SWOT factors in the IFAS and EFAS table.

Grand Strategy Matrix
Following is the result of the Grand Strategy Matrix which shows the position of PT. YY in the market.
The position of PT. YY in Grand Strategy Matrix shows a weak competitive position in rapid market growth. From the analysis, it can be concluded that the best strategy is market development, market penetration, product development, do horizontal integration, invest in other divisions and liquidation. PT. YY must develop a marketing strategy to maintain brand awareness of products and increase strength through investing in colorant projects.
### Table 6. TOWS Matrix of PT.YY

<table>
<thead>
<tr>
<th>Internal Factors/External Factors</th>
<th>Strengths (S)</th>
<th>Weaknesses (W)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>S1 The license of premium products from the international paint company</td>
<td>W1 Tinting machine technology has been adopted by large paint companies</td>
</tr>
<tr>
<td></td>
<td>S2 Good paint innovation</td>
<td>W2 Inefficient production process</td>
</tr>
<tr>
<td></td>
<td>S3 Colorant innovation</td>
<td>W3 PT. YY has not had channels in eastern Indonesia yet</td>
</tr>
<tr>
<td></td>
<td>S4 Good distribution management</td>
<td>W4 Low brand awareness of PT. YY products.</td>
</tr>
<tr>
<td></td>
<td>S5 Fast complaint service</td>
<td>W5 PT. YY price is much higher compared to other companies.</td>
</tr>
</tbody>
</table>

| Opportunities (O)               | 1. PT.YY has premium products license and paint innovation, and also opportunities to capture market share in Indonesia | 1. PT.YY need to increase brand awareness and customer's loyalty to capture all opportunities in Indonesia market (W4,W5,O1,O2,O5) |
|                                 | (S1,S2,O1,O2,O3,O5)                                                        | 2. PT.YY need to expand distribution in eastern Indonesia as paint products are still favorable than substitutes products (W3,O4) |
| O2 The growth of Indonesia infrastructure. | 2. There are many opportunities in Indonesia paint industry.       | 3. Although large companies have tinting machine technology, PT.YY still has opportunities in green technology as a trend in the future ( W1,O3) |
| O3 PT. YY paint products based on green technology which is environmental friendly products. | Colorant innovation can give advantages for PT.YY products (S3, O1, O2, O4) | | |
| O4 Paint is more favorable than substitutes products | 3. PT.YY has good distribution management and fast complaint service to support the company (S4,S5) | | |
| O5 Indonesia inflation rate is stable in the last few years, | 1. Premium products will give advantages for PT.YY, and it will give good choices for customers and also PT.YY can compete with other paint companies (S1, S2, T3, T4, T5) | 1. Promotional activities to introduce brand awareness of PT.YY products (W3,W4,W5,T3,T4,T5) |

| Threats (T)                      | 1. PT.YY has strengths in good distribution management and fast complaint service in the face of new foreign investors | 2. Joint Venture (W1,W2,T1,T2) |
| T1 Tax holiday facility for foreign investors | 2. PT. YY has strengths in good distribution management and fast complaint service in the face of new foreign investors | | |
| T2 ASEAN-China Free Trade Agreement | (S4,S5,T1,T2) | | |
| T3 Buyers have many choices of paint products and where to purchase them. | 3. Developing the strength of company through colorant project to add value of products to compete with competitors (S3, T4) | | |
| T4 There are many paint companies which are involved in Indonesia’s market competition. | | | |
| T5 Competitors offer more competitive pricing strategies | | | |

Source: Researchers, 2018
**New Industry Profile**

All paint products need colorant as one of the main components. Pigments are a powder which cannot be mixed directly with other paint materials (latex/binder, water/solvents, fillers, thickener, and additives: antifoam, preservatives, leveling agents, wetting/dispersing agents, and others). The pigments powder needs to be processed into colorant paste to avoid rough paint and unstable colors. The purpose of development colorant innovation is to create good pigments and disperse stably for beautiful paint colors. PT. YY has colorant innovation which can increase the competitive advantage.

**Financial and Investment Analysis**

Researchers will calculate the two scenarios of investments. The first scenario is PT.YY produces colorant for internal use, and the second scenario is PT.YY produces and sells colorant products. The feasibility study of the colorant project will be represented by Net Present Value (NPV), Internal Rate of Return (IRR), Payback Period and Profitability Index. The based currency in colorant project is Indonesia Rupiahs. The project will use funds for operations from bank loans about 60% and 40% of equity fund with the lifetime of the project is ten years. The bank loan rate of interest is 11.5% per year, and the tenor is five years, Indonesia’s inflation rate is 3.5% and Indonesia Corporate Tax is 25%. The initial stage of the construction project will begin in the year 2019 and the operations will be started in the year 2020.

Below are the assumptions and feasibility study result in this project:

**Table 7. General Assumptions of Project**

<table>
<thead>
<tr>
<th>GENERAL ASSUMPTIONS</th>
<th>Kilograms</th>
<th>500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorant Processing Machine capacity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Daily Operation</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Monthly Operation</td>
<td>25</td>
<td></td>
</tr>
<tr>
<td>Year Operation</td>
<td>300</td>
<td></td>
</tr>
<tr>
<td>Maximum Production Capacity</td>
<td>300,000</td>
<td></td>
</tr>
<tr>
<td>Net Production</td>
<td>80%</td>
<td></td>
</tr>
<tr>
<td>Financial projection period</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Construction period</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Fixed Asset Depreciation</td>
<td>Indonesia Tax</td>
<td></td>
</tr>
</tbody>
</table>

Source: Researchers, 2018

**Table 8. Key Assumptions of Project**

<table>
<thead>
<tr>
<th>KEY ASSUMPTIONS</th>
<th>%</th>
<th>3.5%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inflation Rate</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Investment Cost</td>
<td>IDR</td>
<td>14,317,602,292</td>
</tr>
<tr>
<td>Interest Rate</td>
<td>%</td>
<td>11.50%</td>
</tr>
<tr>
<td>Corporate Tax Rate (all years)</td>
<td>%</td>
<td>25%</td>
</tr>
</tbody>
</table>

Source: Researchers, 2018
Table 9. Feasibility Study Result of Colorant Project (First Scenario)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Expenditures</td>
<td>2,401,150,000</td>
</tr>
<tr>
<td>Initial Working Capital</td>
<td>11,100,000,000</td>
</tr>
<tr>
<td>Interest During Construction</td>
<td>816,452,292</td>
</tr>
<tr>
<td>Debt to Total Asset</td>
<td>60%</td>
</tr>
<tr>
<td>Equity to Total Asset</td>
<td>40%</td>
</tr>
<tr>
<td>WACC</td>
<td>13.15%</td>
</tr>
<tr>
<td>Cost of Equity</td>
<td>23.16%</td>
</tr>
<tr>
<td>NPV Project</td>
<td>10,488,195,197</td>
</tr>
<tr>
<td>NPV Equity</td>
<td>4,500,595,413</td>
</tr>
<tr>
<td>IRR Project</td>
<td>32.24%</td>
</tr>
<tr>
<td>IRR Equity</td>
<td>42.97%</td>
</tr>
<tr>
<td>Payback Period of Project</td>
<td>3.99</td>
</tr>
<tr>
<td>Payback Period of Equity</td>
<td>4.07</td>
</tr>
</tbody>
</table>

Source: Researchers, 2018

Table 10. Feasibility Study Result of Colorant Project (Second Scenario)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Capital Expenditures</td>
<td>2,401,150,000</td>
</tr>
<tr>
<td>Initial Working Capital</td>
<td>11,100,000,000</td>
</tr>
<tr>
<td>Interest During Construction</td>
<td>816,452,292</td>
</tr>
<tr>
<td>Debt to Total Asset</td>
<td>60%</td>
</tr>
<tr>
<td>Equity to Total Asset</td>
<td>40%</td>
</tr>
<tr>
<td>WACC</td>
<td>13.15%</td>
</tr>
<tr>
<td>Cost of Equity</td>
<td>23.16%</td>
</tr>
<tr>
<td>NPV Project</td>
<td>7,833,453,497</td>
</tr>
<tr>
<td>NPV Equity</td>
<td>2,825,482,438</td>
</tr>
<tr>
<td>IRR Project</td>
<td>27.84%</td>
</tr>
<tr>
<td>IRR Equity</td>
<td>35.65%</td>
</tr>
<tr>
<td>Payback Period of Project</td>
<td>4.31</td>
</tr>
<tr>
<td>Payback Period of Equity</td>
<td>4.67</td>
</tr>
</tbody>
</table>

Source: Researchers, 2018

Risk Management of Colorant Project

The stages of project management for PT. YY, is project initiation, proper project planning, implementing an integrated system, controlling and monitoring the project to achieve project objectives. The management also will identify the risks to assess the level of risks. After conducting risk identification, PT. YY can determine the mitigation plan for the most frequent and extreme risks. As the results, the risk factors of colorant project are financial, project regulation, operational, social, environmental, human resource, product development, and fraud risks. The financial and fraud risks
show significant influence on the colorant project as the most frequent and extreme risks. The management needs to minimize and mitigate these risks to maintain project sustainability.

4. CONCLUSION AND RECOMMENDATION

Based on the external and internal analysis, there are many new entrants in the paint industry. But, PT. YY still has opportunities to compete in the industry. The results indicate that PT. YY has a weak competitive position in rapid market growth. The best strategy for PT. YY is developing a marketing strategy and increase strength through investing in colorant projects. The Researchers has proposed project colorant investment for PT. YY. The Feasibility Study has calculated to assess the feasibility of the project by comparing two scenarios. The first scenario is PT. YY produces colorant for internal use, and the second scenario is PT. YY produces and sells colorant products. The results of the feasibility study will be represented by Net Present Value, Internal Rate of Return, Payback Period and Profitability Index values of the project and equity.

The First Scenario (Colorant for internal use)

The NPV value of the project reaches IDR 10.488.195.197 with an IRR level of 32.24% greater than project hurdle rate WACC 13.15% and the payback period reaches 3.99 years with project lifetime of 10 years, and Profitability Index 1.88.

NPV value of the equity reaches IDR 4.500.595.413 with an IRR level of 42.97% greater than equity hurdle Cost of Equity 23.16% and the payback period reaches 4.07 years with project lifetime of 10 years, and Profitability Index 1.98.

The Second Scenario (Colorant for sell to others)

The NPV value of the project reaches IDR 7.833.453.497 with an IRR level of 27.84% greater than project hurdle rate WACC 13.15% and the payback period reaches 4.31 years with project lifetime of 10 years, and Profitability Index 1.66.

NPV value of the equity reaches IDR 2.825.482.438 with an IRR level of 35.65% greater than equity hurdle Cost of Equity 23.16 % and the payback period reaches 4.67 years with project lifetime of 10 years, and Profitability Index 1.62.

From the analysis, it can be concluded that the project investment will give positive value to the company. Funding requirements of this project will be obtained from bank loans about 60%, and 40% equity. PT. YY will be able to return the bank loans according to the schedule. The best scenario for this project is the first scenario which is more profitable and gives a positive result in Net Present Value, Internal Rate of Return, Profitability Index and low Payback Period compared to the second scenario to sells colorant to other paint companies. PT. YY strengths in colorant innovation will reduce costs and improve the quality of good paint colors. Based on that decision, the implementation of risk management will support the project sustainability. Risk management will help the company successfully manage the project and mitigate the risks.

ACKNOWLEDGMENT

This paper is written based on the Researchers final project at MBA Institute of Technology Bandung which supervised by Ir. Maryat Nirwandi MBA, who has been supervising the Researchers to accomplish the final project. Researchers also would say thank you for PT. YY where the final project has taken.
REFERENCES


Evaluation Users Response of Streaming TV Mobile Application Using Data Envelopment Analysis (DEA)

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Gadang Ramantoko
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Abstract

Purpose-The purpose of this research is to evaluate the results of Usability Testing on streaming tv mobile application to measure good and bad user experience on this mobile application (appropriate company) Design/Methodology/Approach-Data is collected through usability testing for this mobile application with users directly. The method used in this study is data envelopment analysis (DEA) which is a linear programming based technique. Findings-The results of this research describe good and bad user experience based on several values that evaluated using DEA that can be used as references. A good user experience can be a benchmark for a bad user experience. Besides, a bad user experience can be analyzed to be developed into a good user experience. Originality/value—Although much research has been conduct to discusses usability testing as a reference for improvising a good (better) user experience by using calculations on each value separately, this study can describe not only good user experience, but also poor user experience, based on the evaluation of all values calculated together using the DEA technique.

Keywords: Usability, User Experience, Data Envelopment Analysis (DEA)

1. INTRODUCTION

Business competition will be increasingly stringent and complicated according to Winarno (2008: 24). Facing these conditions, Barker in Winarno (2008: 24) mentions that the business world in Indonesia can utilize the key of success in the future, such as excellence, innovation and anticipation. The mobile application one of the key’s success in the future based on the internet. Based on data quoted from the Hootsuite publication (Social media marketing and management dashboard) in a news story, the number of internet users in January 2018 penetrated 132.7 million users with 130 million of whom were active users of social media. While the population of mobile device users reaches
177.9 million users where 120 million users are active mobile social users. The results of research by Hootsuite state that from January 2017 to January 2018 active social media users have increased by 23% and 30% for active mobile social users. Based on the data, it can be concluded that mobile users increase in a 1 year period. From now on, people access anything through their mobile. Even now, there are mobile applications for watch TV in streaming. This is an innovation that make mobile users watching TV easily without having a television. So, object for this study is one of streaming TV mobile application in Indonesia, called “X” (name disguised).

Since 2013, the X mobile application has continued to innovate and improve the system. Despite getting a rating of 3.9 in the PlayStore, this application also received many negative reviews in the PlayStore. A total of user who gave a negative review are 13,116 users. As we can see in Fig. 1

![Negative Review](image)

**Figure 1.** Negative Reviews Pie Chart (X mobile application)

According to Fig.1, it shows that this application has problems related to bandwidth, compatible and usability. But, the main factor in the number of negative reviews is usability, which is 86%. It can be concluded that this application has a problem with the usability system.

Usability is an attribute of quality that assesses how easily a user interface (UI) and user experience (UX) of a website or application is used (Nielsen, 2012). The user interface is space where interactions between humans and machines occur. Research institutes that also provide course services on UI/UX, Interaction Design Foundation define the user interface design as a process of creating interfaces on software or computer devices that focus on appearance and design style (2002). User Interface talks about the appearance of a device, while the user experience includes all things related to user’s activity when using an application or website (Roto, et. All 2011). In an article (User Experience White Paper, 2011), there is an explanation that user experience refers to a system that has a beginning and an end that refers to the whole of how people interact with a system.

The X mobile applications developer team continues to make improvements to the system to increase usability values and user experience to reduce the negative reviews in the store which can affect to the rating. In 2018, the developer team decided to conduct usability testing for this mobile apps. The testing was held on January 2019 in Bandung and Jakarta City with 14 respondents participates. The aim of this testing is to collect users responses, in order to describe the problems contained in the apps to make improvements of usability system. Based on the Nielsen’s (2000) statement in Brooke (2011), 5 respondents are enough to test the usability of a website or application. With 5
respondents, we can determine what problems are contained in a website or application (Nielsen, 2012). Once identified, we can determine what to do next. Therefore, it is important to conduct a study related to the evaluation of user responses that collect from usability testing. This study will evaluate the user’s responses using DEA (Data Envelopment Analysis) to identify problems and provide recommendations related to user experience for this apps. The title of this study is "Evaluation Users Response of Streaming TV Mobile Application Using Data Envelopment Analysis (DEA)".

2. LITERATURE REVIEW

Customer Behavior in Marketing

Customer Behavior is mental and physical activity carried out by consumers to make decisions and actions to pay, buy, and use products or services (Sheth, 1999). Kotler and Keller (2012) interpret Customer Behavior as a study of how individuals, groups, and organizations, choose, buy, use and dispose of goods, services, ideas, or experiences to satisfy their needs and desires. Customer behavior is one element that influences marketing. Marketing can identify customer needs by analyzing customer behavior. According to Kotler (2012), marketing is about identifying and meeting human and social needs. The process of creating, distributing, promoting and pricing goods services and ideas to facilitate exchange relationships that satisfy customers and develop also maintain profitable relationships with stakeholders in a dynamic environment is referred as marketing (Ferrell, 2011: 4). Abraham Maslow developed a deep understanding of human needs and how they can be fulfilled. As a reference, Maslow's Hierarchy of Needs (1943) can provide a user experience that meets user needs according to the results of research by the Research Institution.

Customer Experience and User Experience

Customer Experience is defined as customer interaction with the company, which includes communication, service, and consumption. Customer Experience is fairly wide range of customer relationships or experiences with all elements of the company. According to the Interaction Design Foundation, "Customer Experience is the largest concept". While User Experience is part of customer experience. User experience is included in the direct user type, which is direct interaction between the user and the machine. Geis and Polkeln (2017), differentiate two type of this experience as follows:

- Customer experience
  Viewed from the customer's perspective in terms of "People who pay", people expect that the cost or profit ratio leads to profit on making of a system or service profits.

- User Experience
  Viewed from the perspective of direct user interaction of a system or interactive service, it is expected that the system or service is truly effective and efficient, leading to positive user experience.

ISO 9241-210, 2010 said that user experience is a person's perception and response resulting from the use of a product, system or service. User Experience (UX) is the main concept in human interaction with computers or machines. IDF reinforces these statements by interpreting the user experience as the quality of one's experience when interacting with a particular design. The main requirement of the user experience is to be
able to meet customer needs appropriately without complicating customers (Nielsen, 1994). The statement issued by ISO has become a standard term used in an industrial perspective. In conclusion, user experience is a part of customer experience that can affect customer satisfaction.

**User Experience and Customer (User) Satisfaction**

User Experience (UX) affects customer satisfaction because it includes broad elements related to the customer. User Experience is an important thing in business because it refers to the end user of a product. So that it can influence the decision to buy or use. Customer satisfaction is defined as "evaluation of the perceived discrepancy between prior expectations and the actual performance of the product" (Tse, 1988 in Oliver, 1999). So, it can be concluded that good UX will lead to positive customer (user) satisfaction. UX can be judged based on its usability. According to Nielsen in his book "Return on Investment for Usability", Usability can provide the following percentage increases in Figure 2.

![Figure 2. Metric](image)

**Usability**

Usability is an attribute of quality that assesses how easily a user interface and user experience of a website or application is used (Nielsen, 2012). This convenience can be assessed based on the results of the user's response. So that it will be concluded that an application or website can be considered easy or difficult to use. Usability can identify 5 important components, including:

- Learnability: How easy is it for users to complete task when they first find a design? Learnability is assessed based on proficiency level compared to time and can be recorded in the form of a learning curve.
- Efficiency: After users learn design, how fast can they do the task?
- Memorability: When users return to the design after some time not using it, how easily can they rebuild their skills in using it?
- Error: How many errors did the user make, how severe this error was, and how easily they could recover from the error?
- Satisfaction: How satisfied is the design used?

ISO 9241-11, 1998 statement is usability can identify how far the product can be used by certain users to achieve goals determined by effectiveness, efficiency and satisfaction in the context of certain uses.
Usability Testing

Usability Testing is a test of the ease of use of an apps or website (Nielsen, 2003). 85% of the problems contained in the usability system can be identified through the Usability Testing method (Lewis, 2006). There are two main reasons in Usability Testing according to Lewis and Sauro (2016):

- Usability testing is the way to determine whether a user can achieve the goal.
- Usability testing uses many of the same metrics as other user research techniques.

In 2016, Lewis and Sauro released a book which was the result of their research based on previous research references. The study was developed from Lewis (1993) and describes the implementation of usability testing with the elements needed in conducting usability testing. This technique and method became the standard used in usability testing:

Participant (respondents)

Participant or can be said as a respondent (if in a study) is an attribute of implementation of Usability Testing. According to Nielsen (2012), only 5 respondents were needed to identify usability problems in an application or website. Nielsen and Landauer conducted research on the number of respondents needed in usability testing. The research produced the following formula:

\[ N = \frac{1}{1-(1-L)^n} \]

- \( N \) = Total of usability problems
- \( L \) = Proportion of usability problems found when testing 1 respondent. Objective -> 31% based on previous research
- \( N \) = Number of respondents

Usability Goal

Goal is something that becomes the main goal or purpose. The goal here is the purpose associated with testing the application. Usability goals are something that is expected to be user learning (Techsmith, Usability Testing Basics). When we do the usability testing, we must determine what system to test. In this case, the researcher must be able to understand the main functions of the product to be tested. That way, goals can be easily determined. One of the main objectives of conducting user research is to establish some causal relationships between design and behavior or attitudes (Sauro, 2013).

Think Aloud

Think Aloud is a method in usability testing that was first introduced by Lewis and Rieman (1993). Think Aloud is a method that asks people to express what is on their mind when solving problems and analyzing the results through verbal (Someren, 1994). Imagine if this method is used in 100 or even 1000 years, then through this method we can see the image quality of people mind. According to Dimnet (1928), Think Aloud helps researchers understand what comes spontaneously to the participant's mind. Think
Aloud is a method that helps participants to express problems experienced when usability testing takes place, especially when working on each Task.

**Scenario and Task**

Scenario is an element in the task that becomes a reference for participants in working on tasks when following usability testing. Task is the research questions done by the respondent. There is no objective for Task. The task can be tailored to the needs of related companies, in terms of business. Sauro and Lewis categorize Task time into 3 categories, namely:

- Task Completion time: the time calculated from the participant's success completes the task.
- Time till failure: the time counted until the participant gives up or completes the task incorrectly (not according to the goal).
- Total time on task: the total duration needed by the participant in the task

**System Usability Scale (SUS)**

System Usability Scale (SUS) is a measurement of the feasibility of an application or website (Brooke, 2013). SUS was first discovered by John Brooke in 1986 and recorded in 1996. Until 2013, 1,200 publications have used the SUS method (Brooke, 2013). Until now, SUS has become a standard that must be used as usability testing attributes. SUS is a simple scale, consisting of ten items (questions) that provide a global view of subjectivity assessment of usability (Brooke, 2013). Here are 10 questions that become the standard SUS method in Figure 3

![Figure 3. 10 Question of SUS](image)
Odd items (1, 3, 5, 7 and 9) are positive and even items (2, 4, 6, 8 and 10) are negative. So that SUS calculations are distinguished by odd and even categories. The calculation of SUS has been determined by Brooke and is a standard at ISO 9241-11 (1998). Questions 1 to 10 have a measurement scale of 1-5. Then how to calculate SUS? To calculate SUS scores, first add the score contribution of each item. Each item score contribution will range from 0 to 4. For items (odd) 1, 3, 5, 7, and 9 score contributions is the scale position (participant given answer) minus 1. Meanwhile for item (even) 2, 4, 6, 8, and 10, the formula is 5 minus the scale position (participant answer). After getting the score for each item, add it. The total contribution score for all items is multiplied by 2.5 to get the overall value of SUS. Following is the SUS score formula for 1 participant

Odd item scores (1, 3, 5, 7, 9) = Participant Answers – 1
Even items scores (2, 4, 6, 8, 10) = 5 - Answer Participant
SUS score of 1 Participant = Total score for each item x 2.5

\[
\text{SUS Score} = \frac{\text{Total SUS 1 Participant Score}}{\text{Participant Amount}}
\]

The SUS Score’s scale is 0-100

*Data sources: Bangor, Kortum and Miller (2008, 2009)*

Bangor, Kortum, and Miller (2008, 2009) in Brooke (2013) found the relationship between SUS scores and people's assessment of the systems and products. They evaluated in terms of adjectives such as "good," "poor," or "excellent". They propose that it is possible to take SUS scores for certain products and provide grading scores in Figure 4

![Figure 4. System Usability Scale Score Grading](image)

*Net Promoter Score (NPS)*

Net Promoter Score (NPS) according to Sauro and Lewis (2011: 51) is a scale of loyalty (loyalty) that only uses one question "How are you likely to recommend this product to a friend?" that measured on 11-point scale which is 0 (Not all likely) to 10 (Extremely likely). Sauro and Lewis divide into 3 categories:

- **Detractor** = Who rate for 0-6
- **Passive** = Who rate for 7 and 8
- **Promoter** = Who rate for 9 and 10
**Method**

Quantitative research techniques using Data Envelopment Analysis. See Figure 5

**Data Envelopment Analysis (DEA)**

DEA was first introduced by Charnes, Cooper, and Rhodes (CCR) in 1978 as a linear-programming-based methodology that uses many inputs and multiple outputs to calculate efficiency scores (Charnes et al., 1978). DEA is a nonparametric tool. In 1942, Wolfowitz introduced a nonparametric term into the statistical literature to expand statistical theory that already existed outside the usual parametric framework. Nonparametric research is different from parametric research that is more often used. The term nonparametric is used because it is a statistical method that does not make assumptions from a population or sample (Hesse et al, 2017). Nonparametric studies in general will be more efficient to examine data with small amounts (n <30). This research was conducted to evaluate the results of usability testing as an optimization of a better user experience.

DEA is a methodology that is strong, standard and transparent. In addition, it is believed to be a very suitable tool for prioritizing customers. Wong (2008) described the advantages of DEA, including the following:

- DEA is an effective tool for evaluating relative efficiency for measuring performance
- DEA is able to overcome the complexity that arises from the lack of a common measurement scale. This allows management to simultaneously analyze a number of inputs and outputs that are measured at different scales.
The objectivity derived from the DEA weighting variable during the optimization procedure frees analysis from subjective estimation and randomness. This increases the acceptance of the results by the affected parties.

- Can measure more than 1 input variable and output variable simultaneously.
- The measured variables do not have to assume functional relationships.

Choosing DEA as a data processing technique from the results of usability testing as a tool is to perform the most optimal performance. In DEA there is something called Decision Making Units (DMU), goals and constrains. DMU is a determinant or decision maker that produces values that can be evaluated. In this study, respondents were referred to as DMU. The goal in this study is to optimize performance based on usability testing elements (Sauro, 2015), including learnability (respondent's learning rate) and satisfaction (respondent satisfaction). While the constraints used in this study are task time, system usability score (system usability scale), net promoter score, satisfaction and ease of use. The concept used by the author adopted from Khezrimotlagh and Yao Chen (2018) to process the data:

\[
\begin{align*}
\text{Max} & \quad \{ \text{Li} \} \\
\text{Subject} & \quad x_1w_1 + x_2w_2 \\
x_1w_1 + x_2w_2 & > 2, \text{ with } i = 1, 2, \ldots, 14 \\
w_1 & > 0 \\
w_2 & > 0
\end{align*}
\]

Data processing in this study, uses one data processing software, RStudio with Data Envelopment Analysis technique. While the packages used in this software are rDEA packages. Based on the description of the formula above, the DEA will help choose which output is the most optimal based on input variables without having to have a functional relationship with each other. The results of the study can be used as a reference to determine the most optimal decisions in improving user experience performance.

3. RESULT AND DISCUSSION

The data was collect from the usability testing is following to the Table 1.

<table>
<thead>
<tr>
<th>Respondent</th>
<th>SUS</th>
<th>NPS</th>
<th>Learnability</th>
<th>Task Time</th>
<th>Ease of Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>62.5</td>
<td>7</td>
<td>50</td>
<td>390</td>
<td>2.5</td>
</tr>
<tr>
<td>2</td>
<td>75</td>
<td>10</td>
<td>50</td>
<td>465</td>
<td>2.7</td>
</tr>
<tr>
<td>3</td>
<td>60</td>
<td>9</td>
<td>50</td>
<td>1317</td>
<td>2.5</td>
</tr>
<tr>
<td>4</td>
<td>37.5</td>
<td>9</td>
<td>25</td>
<td>1192</td>
<td>2.3</td>
</tr>
<tr>
<td>5</td>
<td>27.5</td>
<td>8</td>
<td>0</td>
<td>2121</td>
<td>3.8</td>
</tr>
<tr>
<td>6</td>
<td>82.5</td>
<td>10</td>
<td>87.5</td>
<td>634</td>
<td>1.2</td>
</tr>
<tr>
<td>7</td>
<td>72.5</td>
<td>9</td>
<td>75</td>
<td>592</td>
<td>1.8</td>
</tr>
<tr>
<td>8</td>
<td>72.5</td>
<td>8</td>
<td>75</td>
<td>277</td>
<td>2</td>
</tr>
</tbody>
</table>
From this data, researcher started to choose the input and output. Output in DEA is refers to something that contained the performance. While input is refers to something that not related to performance, especially related to human. So, here the following output and input for several testing using DEA

**Testing 1**
- **Output** = SUS, NPS
- **Input** = Task Time, Ease of Use, Satisfaction

```r
> X = data lengkap r[c('SUS', 'NPS')]
> Y = data lengkap r[c('Task Time', 'Ease of Use', 'Satisfaction')]
> di naive = dea(XREF = X, YREF = Y, X = X, Y = Y, model = 'input', RTS = 'variable')
> di naive$thetaopt

[1] 0.7142857 0.5000000 0.6822582 0.7777778 1.0000000 0.5000000 0.5555556 0.6250000
[9] 0.6126103 0.6250000 0.8228390 1.0000000 1.0000000 1.0000000
```

Result ➜ Optimal is who has value 1.000000
- Respondent: 5, 12, 13 and 14

**Testing 2**
- **Output** = Learnability
- **Input** = Task Time, Ease of Use

```r
> X = data lengkap r[c('Learnability')]
> Y = data lengkap r[c('Task Time', 'Ease of Use')]
> di naive = dea(XREF = X, YREF = Y, X = X, Y = Y, model = 'input', RTS = 'variable')
> di naive$thetaopt

[1] 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.125 1.000
[14] 0.500
```

Result ➜ Optimal is who has value 1.000000
- Respondent: 13

From this testing with DEA, it can be concluded that respondent 13 has the optimal value for user experience.

**Characteristic of Respondent 13**

From the data that collected in usability testing, the x mobile team has data about gender, job, age and persona of each respondent. But in DEA, we know that the gender, job and age cannot be used for standard to define the user experience. But DEA can define that persona can be the key of the good user experience. Respondent number 13 has an optimal value for user experience and has a persona called “Family Man”.

```
9  72.5  9  87.5 1046  1.5  2.2
10  72.5  8  75  722  3  3
11  62.5  9  37.5 1864 3.7  2.8
12  72.5  9  100 1750  4  4.5
13  52.5 10  25 2022  4.2  3.8
14  32.5  5  50  824  4.2  4
```
4. CONCLUSION AND RECOMMENDATION

This study conclude that the good user experience for this mobile apps is not related to gender, age or job. But it can be related to a persona of the user. Especially in this case study, respondent number 13, can be benchmark for the good user experience with the detail of collected data as following:

<table>
<thead>
<tr>
<th>Respondent</th>
<th>SUS</th>
<th>NPS</th>
<th>Learnability</th>
<th>Task Time</th>
<th>Ease of Use</th>
</tr>
</thead>
<tbody>
<tr>
<td>13</td>
<td>52.5</td>
<td>10</td>
<td>25</td>
<td>2022</td>
<td>4.2</td>
</tr>
</tbody>
</table>

SUS = 52.5 (scale 0-100) < Standard SUS
NPS = 10 → Highly Recommended
Learnability = 25 (scale 0-100)
Task Time = 2022 Second (33.7 minute)

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Kamus Besar Bahasa Indonesia, 2018


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Competences Development of Small Medium Business Actor in Utilizing Information and Communication Technology in Bandung Areas
(Case Study: MSME Businessmen in Kabupaten Bandung, West Java)

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Abstract

This research aims to: (1) describe the level of MSMEs businessmen competency in the use of ICT in rural areas of Bandung, (2) to analyze the factors that influence the competence of natural businessmen to utilize ICTs for their business activities in rural areas of Bandung, and (3) to formulate strategies for developing competence of MSMEs businessmen, especially in the utilization of ICT in rural areas of Kabupaten Bandung and West Java, Indonesia. Competence in this research is personal competence that is personal ability and skill in effort and technical competence is technical ability in operational of ICT facilities in its implementation at every activity of MSMEs businessmen. This research was conducted in Kabupaten Bandung from December 2017 to April 2018. The sample of respondents was 313 based on the total population selection of 3033. The data analysis method in this research used Structural Equation Modelling (SEM)-AMOS. Based on the results of this research indicate the perception of MSMEs businessmen and the utilization of ICT facilities have a positive effect on the competence of utilization of ICT facilities, while the level of external...
environmental support has negative effect but not significant on the competence of MSMEs in utilizing ICT facilities. and the Profile of MSME bussinesman has positive but not significant.

Keywords: Competence, Small medium enterprise (SME), Information communication and technology (ICT).

1. INTRODUCTION

Micro Small Medium Enterprises (MSMEs) is the largest group of economic actors in the Indonesian economy. The Ministry of Cooperatives and Small Medium Enterprises in 2012-2013 shows the development of SME data reached 56,539,560 with 9.5 percent growth. In line with the development, the MSMEs sector faces an increasingly competitive competition, the swift flow of goods coming into the country due to the enactment of an open economy demanded businessmen should be able to face global challenges and adapt to it.

The research results of APEC shows that in global environment of SME in Indonesia still has a low competitiveness [1]. Based on APEC SME Innovation Center show that the index score of Indonesian SME competitiveness performance data are in the low category. Products made by business groups at the domestic market level, have not been able to compete with imported goods. This is caused by the quality of goods that are not competitive, and its limited technology.

To support the competitiveness business required the application of information technology in business development. This is in line with the research by Tambunan, the data show that Inodesian MSMEs businessmen has a low competitiveness value, only businessmen who have the ability in utilizing information technology that be able to face competition[1]. The ability to utilize information technology is needed to face today's global challenges. This is in line with the research by Tambunan, companies that apply information technology on the development of their business will increase the high competitiveness[1].

On the other hand the ability of businessmen in using ICT is still low. The data from BPS suggests that the low educated MSMEs businessmen is lacking in the mastery of information technology[2]. Based on the survey results of the Daily Tribune News show that the seventeen million MSMEs in Indonesia only 75,000 who have web[3]. Refer to the results of the research by The Asia Foundation shows the number of SME who utilize e-commerce in the area of Bandung and Bogor is only 18 percent[4]. According to the daily business of West Java shows that there is still lack capabilities in mastering ICT for MSMEs businessmen[5]. Beside that, the facts on the real situations showed a gap between conditions in the field with expected conditions in the utilization of ICT for businessmen in rural and urban areas of West Java province. This demands the need for awareness of the benefits of technological mastery abilities for the businessmen, in order to enhance sustainable competitiveness.

Increased awareness may arouse people's interest towards mastery of ICT in order to achieve the optimal ICT competency. One of them through public awareness as an empowerment act, as for the programs of empowerment act through ICT utilization by mentoring small business (SME). It is a step to enhance the capabilities of ICT competence for businessmen [6]. The mastery of information technology for the trade needs to be applied in any business activities. The competence of SME in utilizing the ICT facilities must continue to be improved, along with the growing technological development that is rapidly increasing, as well as the development of internet networks which have an impact on the rise of the information in the digital era.

The importance of the research is to be known by the related parties ie government agencies in order to provide support to the MSMEs businessmen, either in the form of facilities procurement technology tools, policies or regulations, training, mentoring programs
that regulate the progress of MSMEs in the Indonesian country, especially the application of the use of ICT in every business activity. On the other hand can be analyzed further related to the obstacles faced by MSMEs businessmen, especially in the use of technology implementation and utilization. Another important aspect is the rapidly growing digital era in the business world as well as the digital economic opportunities and behavior of the main consumers in the utilization of technology today is higher especially in using ICT on every business activity.

These conditions encouraged this research aims to (1) assess the level of competence of MSMEs trade in utilizing ICT and (2) analyzes the factors that affect the MSMEs trade competence in utilizing ICT facility, (3) formulating development strategies of MSMEs trade competence in utilizing ICT facility.

2. THE COMPETENCE OF MSMEs IN UTILIZATION OF ICT FACILITIES

According to Spencer & Spencer, competence is any form of motives, attitudes, skills, behaviour and personal characteristics that are essential to carrying out the work or tell the difference between the average performance with superior performance. Spencer & Spencer classify competences into two levels, namely the ability of the threshold and the ability to differentiate. According to Pary, competency is a set of knowledge and skills and attitudes relate to one another the effect on individual jobs that correlate with the performance can be improved through training. Technical competence according to Government Regulation No. 19/2005, personal competence is competence according to personality and behavior attitude capable of developing potential, according to SANKRI technical competence is the individual ability in a particular technical field for each task[9].

Competence is required not only in business and management ability in basic, as the development of information and communication technologies, ICT revolution has marked the time when the information becomes a commodity or the power to control it, that the ability of technological competence is essential for improving the quality of products as well as taking opportunities and chances. The role of ICT gives significant benefits to all areas of social, economic and business. On the other hand, the role of ICT support the implementation of knowledge-sharing processes by sharing knowledge through ICT facilities that use virtual meetings such as email, mailing list, web conference[10]. According to Gaynor, the application of the technology in the business on distribution, administrative aspects, the rise of products and manufacturing. Therefore, the mastery of skills in utilization of ICT facilities is required.

The technical competence of the utilization of ICT facilities that must be controlled by businessmen currently is as follows (1) a basic level of competency in operating a computer both hardware and software, (2) competency in digital marketing, (3) the competency in using browser to access pricing information, access to information on raw materials and finding business partners, (4) competency in running the application of e-commerce/e-business, and (5) competency in understanding the seven elements of the media literacy . This is becomes important due to the development of internet networks that affect the onset of the revolution of information in the digital age and have to adapt to the conditions of the digital economy.

3. RESEARCH METHOD

This research was designed as an explanatory research with quantitative approach research which aims to explain the pattern of relationships and influences between variables is done through hypothesis testing. The scope of this research was limited to examine on the
relationship profile of MSMEs businessmen, external environment support, MSMEs businessmen perception and utilization of ICT facilities as well as its effect on the competence of MSMEs trade in utilizing ICT facilities. Justification the four sites as the subject of this research is based on the MSMEs that have a diverse range of creative and unique product, having a strategic tourism and area businessmen who have independent business starting with the procurement of raw materials, process and up to the finished product to market and distribute it and capable of utilizing ICT as a facilities of access to information.

The research was carried out in December 2017 to April 2018. The survey was carried out in Kabupaten Bandung, the population of the research in kabupaten Bandung is 3033 with total of craft industry is 345, convection is 1726, and the processed food stuff amount 962. The determination of the total sample is using Slovins formula with 5 % of standard errors. The number of samples people, Kabupaten Bandung consist of 313 people.

4. FRAMEWORK AND HYPOTHESIS

Based on the framework, research hypothesis used as follows: MSMEs trade level of competence in Kabupaten Bandung in the utilization of ICT facilities which are influenced significantly by the businessmen's profile effort (X1), external environment support (X2), the perception of MSMEs businessmen (X3), and the utilization of ICT facilities (X4).

5. RESULT AND DISCUSION

Utilization rate of ICT Facilities by MSMEs Businessmen

Each individual MSMEs businessmen have different characteristics in using and utilizing ICT facilities. Characteristics of the businessmen efforts in utilizing ICT facilities is the reflection of businessmen in operating ICT facilities in each of its business activity. The
description of the characteristics of MSMEs businessmen in utilizing the facilities of ICT hardware and software are presented in Figure 2.

![Figure 2. Utilization Rate of ICT Facilities](image)

People use of mobile phones is higher category than people use of other ICT facilities among MSME actors in Bandung, especially people use of mobile phones based on conventional applications without complete feature. The result of research shown that the people use of ICT facility applications of Android-based tab is categorized lowest in the utilization of ICT.

**Profile of MSMEs Businessmen in Utilizing ICT Facilities**

Profile of MSMEs businessmen based on composition in Kabupaten Bandung is the highest Amount 74 percent of the businessmen. It is categorized productive adulthood about (20-46 years). It can be seen on table 1. The level of formal education of MSMEs businessmen mostly attended to secondary schools (junior-senior high school). The average number of ownership of ICT facilities 1-6 units of ICT equipment is categorized of low, and the period of ownership of ICT facilities is during 1-11 years. It caused of low intensity of counseling and training from the Government related to the use of ICT facility applications in business activities, which is the highest in the rare category. (3). The Cosmopolitan level is categorized as low amount 61.7%. The motivation level is in the medium category amount to 44.9%. Research Results Batte et al. (1990) shows that the level of application of Information and Communication Technology is closely related to age and education factors.with average duration ranges ≥ 12 years.. Non formal education category owned by the businessmen mostly &gt; 80 percent are rare, the training frequency &lt; 3 can be seen in table 1. The lowintensity of counseling or mentoring from related Government in using ICT facilities application in business activities. Research results showed that the level of implementation of information and communication technologies greatly associated with age and education factors[15]. The total of ICT ownership is still

On the other hand, Rukia states that motivation is the impulse that arises from one's self to a direction of behavior that begins the need that cause encouragement. The level of motivation of MSMEs businessmen in the four research sites is mostly in medium category, since the average of the highest business actors is only using cellular means, the utilization of using the computer for business activities is low. This is supported by the results of research in the field that also shows the MSMEs bussinesmen in rural and urban are interested in using ICT cellular facilities caused by ease and speed in transacting.
Table 1. Descriptive Profile of SME Businessmen in Utilization of ICT Facilities

<table>
<thead>
<tr>
<th>Sub Peubah</th>
<th>Kategori</th>
<th>Kab. Bandung(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>n=313</td>
</tr>
<tr>
<td>Usia (tahun)</td>
<td>Remaja(&lt;20)</td>
<td>0.0</td>
</tr>
<tr>
<td></td>
<td>Dewasa(20-46)</td>
<td>74.1</td>
</tr>
<tr>
<td></td>
<td>Lanjut usia &gt;47</td>
<td>25.9</td>
</tr>
<tr>
<td>Pendidikan Formal</td>
<td>Dasar(0-6)</td>
<td>20.9</td>
</tr>
<tr>
<td>(tahun)</td>
<td>Menengah(9-12)</td>
<td>18.7</td>
</tr>
<tr>
<td></td>
<td>Lanjut &gt;12</td>
<td>60.4</td>
</tr>
<tr>
<td>Pendidikan Non Formal</td>
<td>Jarang (&lt;3)</td>
<td>94.6</td>
</tr>
<tr>
<td>(frek/tahun)</td>
<td>Sedang(3-5)</td>
<td>3.8</td>
</tr>
<tr>
<td></td>
<td>Sering(&gt;5)</td>
<td>1.6</td>
</tr>
<tr>
<td>Lama kepemilikan</td>
<td>Sangat lama (&gt;16)</td>
<td>0</td>
</tr>
<tr>
<td>Sarana TIK (tahun)</td>
<td>Cukup lama(12-16)</td>
<td>0</td>
</tr>
<tr>
<td>Jumlah kepemilikan</td>
<td>Lama (1-11)</td>
<td>100</td>
</tr>
<tr>
<td>Sarana TIK (unit)</td>
<td>Rendah (1-6)</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td>Tinggi (17)</td>
<td>0</td>
</tr>
<tr>
<td>Kosmopolitan (skor)</td>
<td>Rendah</td>
<td>61.7</td>
</tr>
<tr>
<td></td>
<td>Sedang</td>
<td>24.7</td>
</tr>
<tr>
<td></td>
<td>Tinggi</td>
<td>13.6</td>
</tr>
<tr>
<td>Tingkat Motivasi (skor)</td>
<td>Rendah</td>
<td>36.4</td>
</tr>
<tr>
<td></td>
<td>Sedang</td>
<td>44.9</td>
</tr>
<tr>
<td></td>
<td>Tinggi</td>
<td>18.7</td>
</tr>
</tbody>
</table>

Source: data processed in 2017

This result is different from the results of research conducted by Kim et al. (2011) and Muliady (2000) that state the motivation to use ICT is only because of attention and interest in the world of IT and supported by high skill in using ICT.

External Environmental Support, Perceptions of MSMEs Businessmen in Utilization of ICT Facilities

External environment Support on the level of quality support mentoring and support programs empowering businessmen in utilizing ICT belongs to the moderate category, businessmen of Kota Bandung have the highest percentage of 80 percent and 70 percent for the level of support of empowerment.

Based on the results of field research on the intensity of extension or extension related to ICT knowledge and its application in the business world is low in one year <5 times the extension frequency. It is based on information, materials and extension methods related to the use of ICT materials that have been submitted is online marketing through the internet.
and the use of basic applications of computerized finance, while the support of empowerment programs in the form of facilitation of learning and procurement of ICT facilities only business actors who have groups or joined together with the business community group received priority support or assistance from the government. For access to information and availability of adequate infrastructure network in four research areas of Kabupaten Bandung, ICT facilities as a means of access to information in urban and rural areas in the Kabupaten is sufficient as indicated by the percentage of information access and infrastructure scores on average > 80 percent. The infrastructure network in the four research areas is also sufficiently available in the physical facilities of the building, transmitter towers, road facilities, and other physical facilities.

The level of perception of MSMEs businessmen toward the characteristics of ICT innovation, the average is high, on the perception of business actor to the suitability of the needs and ease to use of ICT facilities both businessmen in urban and rural areas in Bandung, as indicated by the average Likert scale 3.97 categorized as high. At the level of business actors' perceptions of the benefits of medium-sized ICT facilities with an average value of 2.5, ease of viewing results with a value of 2.4 and ease of use with a value of 2.3.

Based on the results of the research, the people of SME business community now has an assessment that the utilization of ICT facilities is required for business actors in each business activity, among business actors assessed that mobile cell phone, internet, computer and other ICT facilities that have been used by businessmen is suitable for all business activities such as marketing communications and accelerate customer service customers. The results of Gaynor's research show that the application of technology is widely utilized in the business world in aspects (1) distribution, (2) marketing, (3) administration, (4) product awakening, (5) manufacturing[11].

The results of field observations show that, in terms of the level utilization of ICT facilities both computer and mobile facilities MSMEs urban higher than the Kabupaten. This can be shown on the intensity score of the utilization rate and the management of ICT facilities of MSMEs businessmen of Kota Bogor by 60 percent and the information management level of MSMEs businessmen in Bandung 70 percent. The result of field observations show that its caused by the educational level of MSMEs businessmen in urban area is higher than businessmen in Kabupaten, so the level of awareness, assessment of the use and benefit of ICT is higher, whereas the utilization level of ICT facilities include the level of intensity of use and level of ICT information management on the businesman in the Kabupaten is moderate. Research results by Kemenkoinfo shows that people in the Kabupaten level understanding of ICT satisfaction is not optimal than the urban community[19]. Observation of field researcher most of MSMEs businessmen in Kabupaten do not routinely use computer facilities in every business activity, but as a whole for cellular facilities using ICT facilities such as Handphone with frequency of use it is > 10 times in one week. Hafsah in his research shows that the higher intensity of ICT utilization facilities influenced by the high competence of businessmen in applying ICT facilities[20]. Based on the result of field observations show that the average level of information management belongs to the MSMEs businessmen in the urban demographic of the population such as consumers have high mobility level on the use of ICT, the urban community tend to cosmopolite, so that the impact of most consumers of SMEs in urban areas tend to be very high in the management of information on ICT facilities, thus encouraging businessmen to actively use a variety of applications either through mobile facilities and computers either choose information, manage and disseminate information. Suaib research results shows the ability to process data with basic processing into an information can be done more efficiently using computer. The result of field observations show that the application such as Whats App, Blackberry, SMS application is the most
application that used on conventional Handphone, the social media application used by some respondents in the Kabupaten to interact with customers[21].

**Personal Competence and Technical Competence of MSMEs Businessmen**

Competence of ICT utilization is very important in the era of digitalization because currently there is a shift from offline to digital or online economy. The importance of ICT control optimally in its utilization among business actors. The results of the previous research Ey et al. and Aang research indicate that the skills of ICT use through the process of facilitation for MSMEs during ICT learning process is quite important[6][22].

The results of field observations showed that the level of personal competence of MSMEs businessmen in the urban areas and in the Kabupaten have high category with a percentage score > 70 percent. This shows the personal ability of MSMEs businessmen who have a persistent fighting spirit and high motivation spirit and have responsibility in the business activity pertaining good. The technical competence rate of businessmen in the four areas of this research have moderate categorized with a percentage score > 75 percent. Because of business in Kabupaten Bandung have limitations in utilizing ICT facilities with a variety of software applications available in computer facilities and Handphone. On average, the MSMEs businessmen only have ability to use of cellular to communicate and manage information that is downloading images and copying images through Handphone media with certain applications. From field observations only What App applications and blackberry applications that can be mastered in managing information, while the computer very rarely used in addition to the reason too large and not easy to carry anywhere.

The results of previous research by Sree Devi show that female businessmen in India succeed in the sustainability of their business, by exploiting the potential of ICT[23]. Female businessmen increase the mastery of the use of ICT facilities, by trying to follow the skills of managing information and data by the facilities of computers, starting the process of data entry and managing data. Rifki’s research results indicate the skills or competence of ICT facilities should be controlled by MSMEs businessmen because skills the current managerial business must be integrated with the use of information systems on ICT in any business activity ie for the use of marketing or product promotion, communicating with customers transacting online with customers and business partners[24]. Based on the results of the previous research review above, it can be concluded that the sustainability of MSMEs businessmen can be achieved through the acquisition of ICT technology, for the successful application of ICT in business activities, it is necessary to assist the process. However, the results of field observations describes that the average of MSMEs businessmen in the West Java Province currently has not optimal competence in the mastery of various applications of ICT because of the low level of assistance and support intensity empowerment program related to the utilization of ICT facilities, where the level of intensity of mentoring less than <5.

**Fulfillment of Assumptions, Validity and Reliability**

SEM assumptions by looking at the level of normality of the data used in this study. This testing is by observing the value of skewness of the data used if the CR value of skewness data is in the range of 2.58 with a significant level of 0.05 (Latan,2013), then From the results of data processing there is no CR value for skewness which is outside 2.58. by therefore the research data used has meted the terms of -1,483 normality or can be sayed that the research data has been distributed normally.
The reliability test shows that the cronbach alpha value of each construct shows a good result of the cronbach alpha coefficient obtained largely to meet with the required by Tomb Rules which is 0.7. The internal consistency testing of cronbach alpha needs to be done with instrument reliability test with contract validity and extracted variance which obtained mostly shows value above 0.5. This means that all reliable instruments that is Y1 = Competence indicates that the value of the MSMEs bussinesmen variable in Bandung both technical and personal competence in utilizing ICT is quite reliable.

**Analysis of Factors that Influences the Competence of MSMEs Businessmen**

Factors affecting businessmen competence in utilizing ICT facilities are analyzed by SEM presented in Figure 3.

![Figure 3. Estimation of Structural Model Parameters](image)

Based on the results of hypothesis testing and the level of probability of the causal relationship of hypotheses between factors sub variable X1-X4 against Y1. Variable (X1) profile of MSME business actors positively influences competency coefficient 0.04 is positively related to competence but not significant; (2) the external environment support has a negative and insignificant effect on the competence of business actors in utilizing ICT facilities by 0.02, (3) the perception variable of business actors (X3) on competence has a positive effect of 0.42; and variable (X4) of 0.40 the level of utilization of ICT facilities has a positive effect on the competence of MSME business actors. Through the Determination Value significance test R2 shows the competency level of the business actor as much as 60.3% is influenced by perceptions of the business actor and the level of utilization of ICT, while 39.7% of the competency of the business actor is influenced by other factors not included in this study.

**Table 2. Decomposition of influence between profiles of SME business actors, external environmental support, perceptions, utilization of ICT facilities, competence and business sustainability**
Factors Affecting the Competence of MSMEs businessmen in Utilizing ICT Facilities in Bandung

Based on the standardized loading factor (\( \lambda \)), it is known that the 5 percent sign level of 0.05 factors that influence the competency of MSME business actors is the profile of business actors, perceptions of MSME business actors, use of ICT facilities, through analysis of models obtained by confirmatory factor analysis CFA and supported by predictor indicators that are declared valid and can be used to measure latent variables, in figure 3 shows that the competency of business actors more dominantly influenced by the use of ICT facilities is followed by the magnitude of the influence of perception. This is in line with the research of Fatmariani (2012) suggesting that the intensity of the use of ICTs affects the ability of individuals to use ICT. The positive influence shows that the higher the competence of MSME business actors, the higher the level of utilization of ICT facilities and the level of information management. The profile of MSME business actors will significantly affect the competence of MSME business actors. Therefore, the higher the motivation of business people, the more influences the competence of MSME business actors.

The results of the Hubeis (2011) study show that individual competency factors are influenced by the education process. MSMEs on the characteristics of ICT innovations have a significant influence in increasing the competence of MSME business actors. The higher the influence of perceptions of MSME business actors on the characteristics of ICTs in improving competence, the higher perceptions will show the higher understanding and understanding of business actors on ICT characteristics. The perceptual supporting factor variables can be explained by perceptual indicators, then the supporting factors of perceived ease of use are the strongest indicators in reflecting the perceptions of business actors on ICT innovation characteristics followed by perceptions of relative benefits, then perceptions of ease of seeing results and perceptions of suitability and needs easy to try. This implies the perception of ease of use and the perception of profit is relatively more dominant in forming supporting factor variables, namely MSME business actors towards the characteristics of ICT innovations that affect the competence of MSME business actors in utilizing ICT facilities. This is in line with the research of Heilman et al. (2009) show that the perception process is closely related to the competence of business actors in utilizing ICT facilities among small businesses.

The variables supporting the use of ICT facilities are able to be explained in the indicators of the level of intensity of the use of ICT facilities and the level of information management. This means that the level of information management is more dominant in shaping supporting factors, namely the use of ICT facilities to influence the level of competence of MSME business actors in utilizing ICT facilities. The results of Audita (2011) show that the use of ICT affects the competence of businesses in utilizing ICT facilities. Figure 3 shows that the

<table>
<thead>
<tr>
<th>Hubungan antar peubah</th>
<th>Nilai koefisien pengaruh Langsung</th>
<th>Nilai prob</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1 → Y1</td>
<td>0.04</td>
<td>0.276</td>
</tr>
<tr>
<td>X2 → Y1</td>
<td>0.02</td>
<td>0.000</td>
</tr>
<tr>
<td>X3 → Y1</td>
<td>0.40</td>
<td>0.639</td>
</tr>
<tr>
<td>X4 → Y1</td>
<td>0.43</td>
<td>0.000</td>
</tr>
</tbody>
</table>
three indicators explain the level of competency of MSME business actors. The influence of each variable, 3 variables greater than the standard standard > 0.07 and positive. This means that the profile level of MSME business actors, the level of perception and level of utilization of ICT facilities have a positive influence on the competency of MSME business actors in utilizing ICT facilities. One variable, namely the support of the external environment does not affect the competence of MSME business actors in utilizing ICT. Facts on the external environment support field does not affect competency, because high competency is not necessarily a high level of external environment support, because the results of interviews and observations in the field show the low level of competency of MSME entrepreneurs using ICT, but the business continues because it has had a market access network since hereditary, dominant business comes from family inheritance, the ability of business people to obtain business from generation to generation, and raw materials are easily obtained, and have regular customers.

**Strategy of Competence Development of MSMEs Businessmen in Utilizing ICT Facilities**

Based on the result of SEM analysis in Figure 3, the formulation of strategy to increase the competence of MSMEs businessmen in utilizing ICT facilities is done with two strategies, first strategy is the development of the first stage competence to increase the intensity of the utilization of ICT facilities is to hold an intensive training program through ongoing assistance, is done in cooperation with business community groups. Related to this need to be accompanied and counseling in a sustainable and systematic manner, through appropriate facilitation methods, training materials tailored to the needs of businessmen, establish cooperation with higher education institutions and the availability of professional assistants in ICT field. The second strategy is to increase competence through the strengthening of perception, in this case improve the understanding of business actors related to the important role of ICT in business activities. The following strategy to develop competence of MSMEs businessmen in utilizing ICT facilities using input, process and output strategy is presented in Figure 4.

First stage competence development starts from providing (1) encouraging and increasing motivation of business group; (2) strengthening perceptions on business actors so that they have an awareness of the importance of using ICT facilities; (3) reinforcement on the attitude of business actors to the use of ICT facilities; (4) awaken the intensity of daily use of ICT Means, intensive training on the use of ICT tools as instructed; (5) providing facilities for extension facilities for business actors; (6) assistance of training facilities supported by advisory program based on education program as needed, support of capital for procurement of equipment or business capital, support of empowerment program and availability of information access and ICT facilities infrastructure. The next stage is the development of business
entrepreneur strengthening competence in the business community groups in raising the spirit and increasing participation to use ICT facilities, the availability of learning facilities, and strengthening the group, strengthening cooperation with private parties and universities and strengthening the campaign movement to increase awareness of the importance of the use of facilities ICT.

6. CONCLUSION AND SUGGESTION

1) The level of competence of MSMEs businessmen in utilizing ICT facilities include high average personal competency and average technical competency in category of Kabupaten Bandung,

2) The profile of MSMEs businessmen, the perception of MSMEs businessmen and the utilization of ICT facilities have an effect on the competence of MSMEs businessmen in utilizing ICT facilities, and the factor of the utilization of ICT facilities is the dominant factor influencing business entrepreneur competence in utilizing ICT facilities, the support of the external environment has no effect.

3) Increasing the competence of MSMEs businessmen in utilizing ICT facilities is done by strategy: (1) improvement of ICT utilization through intensive program of counseling and mentoring as well as training related to the use of ICT facilities, (2) strengthening perception of the benefits of ICT use in business community groups

Innovation And Contribution

The research contribution are:

1) Provide a general description of mapping the ability of businessmen in using technology to the Government in order to create policies that support for MSMEs businessmen related to the use of ICT for MSMEs businessmen.

2) Improving the ability of businessmen in utilizing the technology facilities, especially in developing a variety of software applications and hardware usage for MSMEs businessmen.

Technological innovation provided:

1) For businessmen there is effort of counseling process or accompaniment which is appropriate in the form of innovative and creative learning process related to
counseling in the process of developing competence of MSMEs businessmen in utilizing ICT facilities.

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The Effect of Marketing Activities Using Social Media on Brand Equity and Man Customer Response to Watch Brands in Indonesia

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**Abstract**

The purpose of this study is to find out how marketing activities using social media affect brand equity and male customer responses to watch brands in Indonesia. This research was conducted using Research Design Descriptive Cross Sectional and using Non-Comparative Sampling sampling techniques. Respondents will be selected using the Convenience and Judgment Sampling method. In this finding the results show that marketing activities using social media have a positive effect on brand equity and male customer responses to watch brands in Indonesia. This study shows that customization, entertainment and interaction are the strongest factors that influence brand equity and male customer responses to watch brands in Indonesia. 

The sample used as the research material was as many as 368 respondents spread across Indonesia and showed that there was a positive influence between marketing activities using social media on brand equity and male customer responses to watch brands in Indonesia. The limitations of this study include: This study only analyzes two components of brand equity, namely brand awareness and brand image on watch brands, this study does not distinguish between types of social media that are used as references in assessing marketing activities through social media, this study does not distinguish between social media official and unofficial social media from a watch brand and this study cannot provide an overview of marketing effectiveness using social media on brand equity and customer response between one brand and another brand. The originality of this research is that this research was conducted on the watch industry and will provide an overview of how marketing activities using social media affect brand equity and male customer response to watch brands in Indonesia.

**Keywords**: social media, brand equity, consumer response, watch brand, watch industry
1. INTRODUCTION

In the current era, in Indonesia, billions of people are connected and connected at the same time through social media. This is showed by the number of internet users in Indonesia reaching 132.7 million in 2016 (Association of Indonesian Internet Service Providers, 2017). From the data, it was also revealed that Facebook became the social media at the top position with 71.6 million users, or 54%, followed by Instagram in second place with the number of users reaching 19.9 million or 15%, followed by YouTube with 14.5 million users, or 11% (Indonesian Internet Service Providers Association, 2017). Social media is a means of interaction where users can produce content, share it, and exchange information in a community or virtual network (Richter and Koch, 2007). Kim and Ko (2012) classify the characteristics of marketing activities using social media into entertainment, interaction, trendiness, customization, and e-word-of-mouth (e-WOM). In social media, marketing activities will increase customer-based brand equity (Bruhn, Schoenmueller, and Schäfer, 2012).

Whereas in the watch industry in Indonesia, the increase in watch sales in Indonesia is predicted to continue. Sales of watches in Indonesia in 2017 to June reached 7.8 trillion Rupiah with growth of 12% from the previous year in the same period (Euromonitor, 2017). This is supported by the trend of economic growth in Indonesia's Gross Domestic Product, creative and fashion industries, internet users and social media in Indonesia. Indonesia's Gross Domestic Income has an average increase of 5% every year (World Bank, 2017).

In this paper, the author will examine how marketing activities using social media affect brand equity in watch brands and how customers respond to marketing activities of a watch brand through social media. Therefore this study will discuss how marketing activities using social media affect brand equity and male customer responses to watch brands in Indonesia and the objectives of this study include knowing the effect of marketing activities using social media on customer responses to watch brands in Indonesia, knowing the effect of marketing activities using social media on brand equity in watch brands in Indonesia, knowing the effect of brand equity on customer responses on watch brands in Indonesia, and knowing whether brand equity as a mediating variable in the influence between marketing activities using social media towards customer response.

2. LITERATURE REVIEW

Social Media

Social media is a means of interaction where the users can create, share, and exchange information and ideas in communities and virtual networks. Social media is defined as a combination of Internet-based applications built on a foundation of ideology and Web 2.0 technology and that enables the creation and exchange of user-generated content (Kaplan and Haenlein, 2011). Social media has changed how a brand's content is distributed and how a brand is consumed until how a brand is delivered from marketers to consumers through online networks (Tsai and Men, 2013). Social media makes brands and consumers communicate with each other without limits of time, place and boundaries of other mediums (Dunoyer, 2009). While routine interactions between brands and consumers will have a positive influence on brand association and brand attitudes (Aaker, 1991).
Social Media Marketing Activity

Social media is a means of interaction where they create, share, and exchange information and ideas in communities and virtual networks. Social media is defined as an online application program, platform, or media that facilitates interaction, work together or sharing content (Richter and Koch, 2007). Social media is also defined as a group of internet-based applications that are built on the foundation of ideology and Web 2.0 technology and that enable the creation and exchange of user-generated content (Kaplan and Haenlein, 2011). Kim and Ko (2012) classify the characteristics of marketing activities using social media into entertainment, interaction, trendiness, customization, and e-word-of-mouth (e-WOM).

Entertainment

Entertainment is the result of fun and games obtained through social media (Agichtein et al., 2008). The perspective that hedonic consumers are pleasure seekers who want to enjoy and enjoy fun on social media (Godey et al., 2016). Some studies show that seeking entertainment or pleasure is one reason someone uses social media (Muntinga, 1977a; Johnson, Kaye, Bichard, and Wong, 2007; Valenzuela, Park, and Kee, 2014). Relax is the reason that make consumers look for entertainment so that it directs them to content from social media (Courtois, Mechant, De Marez, and Verleye, 2009)

Interaction

Interaction through social media greatly changes the pattern of relationships between brands and consumers (Gallaugher and Ransbotham, 2010; Kaplan and Haenlein, 2011). These interactions fundamentally change the dynamics of customer-brand communication, and they also motivate user-generated content development (UGC) on social media (Daugherty et al., 2008; Gallaugher and Ransbotham, 2010; Kaplan and Haenlein, 2010).

There are two social media groups (Zhu and Chen, 2015), namely profile based and content-based, seen from how users interact. Profile-based social media focuses on individual members whose information is related to members and its main function is to communicate with certain topics or individuals that emphasize relationships with other users because users are interested in users behind a profile, for example Facebook, Twitter, and WhatsApp. While content-based social media focuses on content, discussion and comments on a content. The goal is for users to connect with the content that has been provided, examples of this social media are Flickr, Instagram, Pinterest, and YouTube.

Trendiness

Social media provides the latest news and info as well as topics that are currently hotly discussed (Becker, Chen, and Iter, 2011). Consumers will routinely open a social media because they consider the news or info submitted to be more reliable than the info made by the company through traditional promotional activities (Alam, 2015) Motivation to follow the latest news on social media, among others: surveillance, knowledge, pre-purchase information, and inspiration (G. Muntinga, 1977b). Surveillance includes observing activities and staying connected with information about someone. Knowledge refers to information related to a brand that consumers
get from other consumers' experiences in terms of studying and seeking deeper information about a brand. Pre-purchase is to gather information before making a purchase on a brand and inspiration related to things about a brand that can be a source of inspiration from consumers. For example, consumers get inspiration in matching clothes from uploading a brand.

In addition, social media provides the most up-to-date news and information, making it a tool to find the most practical products (Naaman et al., 2011). Consumers tend to trust information obtained through social media more than that from advertisements in marketing or promotional activities. Therefore, trust tends to exist for various types of social media that provide the latest information (Mangold and Faulds, 2009; Vollmer and Precourt, 2008).

Customization

The level of customization explains how services are tailored to satisfy consumers (Schmenner, 1986). By personalizing web pages, brands can adjust and express themselves, creating consumer attachments and loyalty (Martin and Todorov, 2010). In the world of social media, customization refers to the intent and purpose of the content provided by a brand. Customized messages target specific groups while broad messages target anyone interested in a brand.

There are two types of uploads on social media (Zhu and Chen, 2015), special private messages and broadcasts. Private messages specifically target specific targets with a smaller scope, for example, post on a Facebook page. While broadcast messages contain messages to anyone interested in the message content, for example, tweets on the Twitter application. The degree of customization represents the extent to which services reflect customer demand to satisfy their tastes (Schmenner, 1986). Adjustments to social media are based on contact with individual users, which is a big difference with conventional advertising media. It is possible to provide individually optimized information produced by various sources to customers, and this adjustment is used as a strategy to generate perceived positive control and customer satisfaction (Ding and Keh, 2016; Nam and Yeo, 2011).

Electronic Word of Mouth

Electronic word of mouth has long been considered an influential marketing tool because consumers, before buying products or services, look for online information posted by previous users to review information and reduce anxiety (Bickart and Schindler, 2001; Pitta and Fowler, 2005). Electronic word of mouth is the exchange of valuation of a service or product between online users (Barreto, 2014; Katz and Lazarsfeld, 1955; King et al., 2014; Yoon, 2012).

The study shows that e-WOM has stronger credibility and relevance compared to the content from the brand's website (Gruen, Osmombekov, and Czaplewski, 2006). Social media is a means to channel electronic word of mouth (e-WOM) because consumers are happy to share information related to a brand to friends, relatives and others without any obstacles in its delivery (Kim and Ko, 2012).

There are three electronic word of mouth perspectives on social media (Chu, 2009), namely opinion seekers, opinion givers and opinion conveyors. Consumers with high opinion search criteria will find a lot of information and recommendations before buying a product. While consumers with high opinion criteria, often called opinion leaders, have a significant influence
on consumer purchasing behavior. Lastly, the conveyer of opinion is a character that facilitates the flow of opinion.

Social Media Marketing Activity and the Creation of Brand Equity

Brand equity is engraved in consumer memory as a unique value that is different from a brand over another brand. Therefore, brand equity is a socio-cultural phenomenon that is not limited to the name of the product (Keller, 2003). Brand equity is explained as two choices of consumers who oppose, namely between products that have well-known brands and brands that are not well-known (Yoo and Donthu, 2001). Brand equity can be defined both from the perspective of consumers and companies (Atilgan, Akinci, Aksoy and Kaynak, 2009). Consumer-based aspects are the consumer mindset that can be explained using construction such as preference, awareness, and loyalty (Keller and Lehmann, 2001). Company-based aspects talk about product results such as premium prices and market share (Ailawadi, Lehmann, and Neslin, 2003; Keller and Lehmann, 2001). According to Aaker (1991), brand equity is a multidimensional concept with four core dimensions as brand awareness, brand perception, brand association and brand loyalty.

Brand awareness is needed for communication processes for the emergence of a brand, namely awareness of the mind of a brand (Macdonald and Sharp, 2003; Netemeyer et al., 2004). On the other hand, brand image is defined as consumer perceptions of the image that appears in the minds of consumers on a brand. Traditional media has a significant influence to build brand awareness, while social media has a stronger influence in the formation of brand images. Brand image is related to the use of brands by consumers to reflect the meaning of consumption and identity in self-expression (Lau and Phau, 2007). Consumers consider a brand to be of good quality for a well-known brand (Rubio et al., 2014).

Brand Equity and Consumer Response

The usefulness and benefits of brand equity for companies have long been debated, as is the debate about how to strengthen brand equity with appropriate marketing activities. Most experts agree that stronger brand equity contributes to increasing brand preference, price premium and brand loyalty (Horváth and Birgelen, 2015). In the development of brand equity through social media, marketing activities through social media create a positive relationship with future buying behavior (Kim and Ko, 2012).

Brand Preference, Price Premium and Brand Loyalty

When there are many brands competing in the market, consumers will tend to choose brands based on what they know and feel about the brand (Keller and Keller, 2001). Brand preference is usually measured by asking consumers to show their favorite brands from categories or various types of brands (Buaphiban and Truong, 2017). While Price premium is an antecedent of an introduction to the potential for buying behavior, price premium is defined as the willingness to pay more for customers for a brand than for other brands (Netemeyer et al., 2004). Brand loyalty is defined as a function of psychological processes that are decision-making units and responses from time to time regarding one or more brand choices from several available brands (Jacoby, Olson, and Haddock, 1971). Literature sees brand loyalty as the extent to which consumers state
that they will buy back a brand or product in the future after buying the product or brand. Brand loyalty is related to the repeated buying behavior of users from time to time with positive emotional bias, evaluative behavioral tendencies towards a branded or product choice (Sheth, 1974). Brand loyalty also influences consumer decisions on purchases for the same product (Ahmed, 2011; Huang and Huddleston, 2009; Lam, 2007; Martenson, 2007).

Social Media Marketing Activity and Consumer Response

Social media is the right platform for finding information and developing preferences about products and brands (Naylor, Lamberton, and West, 2012). For example, in the hotel industry, customer ratings and testimonials have a strong influence on customer preferences regarding which hotels to order (Verma, Stock, and McCarthy, 2012). A study published by eMarketer. com shows that 81% of girls use their friends and colleagues as a source of trend information, while 45% seek opinions from the same group when deciding which clothes or footwear to buy. These groups influence consumer preferences (eMarketer, 2010). Social media is a social trading platform where consumers pay to buy products directly from this social channel (Anderson, Sims, Price, and Brusa, n.d.; Tuten and Solomon, 2015).

3. RESEARCH DESIGN

In the previous study, it was found that marketing activities using social media had an influence on brand equity and customer response to luxury brands (Godey et al., 2016). In the study, researchers wanted to see the effect of marketing activities using social media from 4 well-known luxury brands (Burberry, LV, Dior, Gucci) on brand equity and customer response. This study will only look at the effect of marketing activities using social media from watch brands in Indonesia with respondents entirely male. Based on data obtained from the Indonesian Internet Service Providers Association as much as 53.5% of men, this is the basis of the selection of respondents from this study entirely male (Association of Indonesian Internet Service Providers, 2017). The watch brand was chosen because no research has looked at marketing activities using social media on brand watches on brand equity and customer response. The following is the research model used:

![Figure 1. Research Framework](image-url)
The hypothesis in this study is based on several theories from previous research. From Godey's research (2016), it was found that marketing activities using social media had a positive influence on brand equity and customer response. From the study, researchers chose to use the marketing activity component using social media (Kim and Ko, 2012), namely customization, interaction, entertainment, trendiness and e-word of mouth towards brand equity in accordance with Aaker (1991) theory, namely brand awareness and brand image and indicator of customer response in the form of brand loyalty, price premium and brand preference (Kim and Ko, 2012). Therefore, the hypotheses built in this study are as follows;

**H1:** There is a positive influence between Marketing Activities Using Social Media and Male Customer Responses to watch brands in Indonesia

**H2:** There is a positive influence between Marketing Activities Using Social Media on Brand Equity in watch brands in Indonesia

**H3:** There is a positive influence between Brand Equity and Male Customer Responses on watch brands in Indonesia

**H4:** Brand equity is a mediating variable in the influence between Marketing Activities Using Social Media to Male Customer Responses to watch brands in Indonesia

This research was conducted using Research Design Descriptive Cross-Sectional in which there will be two or more samples obtained from respondents and information from each sample was obtained only once (Malhotra, Birks, and Wills, 2010). In this study an interval scale will be used which is a scale using numbers in object valuation so that the distance to the measured characteristics will be represented numerically (Malhotra et al., 2010). This study uses a Non-Comparative Sampling sampling technique. Respondents will be selected using the Convenience and Judgment Sampling method. The criterion in this study is that respondents must be male, have seen social media a watch brand and have made purchases on the watch brand in the past 6 months.

Because there is no information for the proportion of the population of people who see social media watches, this study makes the assumption that 50% of people who see a watch brand's social media are men. The 0.5 assumption is used because it can provide the results of the largest possible sample size in the narrowest and most appropriate confidence interval (Levine, 2014). According to this technique, by maintaining the confidence level of the sample at 95% with an error rate of ± 0.07, so the number of samples needed in this research activity is 196 samples.

This study will use a survey method with primary data collection. Primary data collection is done using a questionnaire. The questionnaire was made sequentially according to the conceptual framework in the research model. All questions related to research variables will be presented using non comparative scaling, namely a Likert scale on a scale of 1-6. Modification of the questionnaire is done by adding questions to each variable taken from another reference journal.
Main Test

Regression Test

The purpose of the study was to determine the effect of marketing activities using social media on brand equity and customer response. In this study there are 2 independent variables, so that the regression test performed is multiple linear regression test. The criteria in regression testing are hypotheses accepted if the value of t is significant or <0.05 (Malhotra, 2010).

Mediation variable

The hypothesis that the independent variable influences the mediator variables which will later affect the dependent variable. When a mathematical equation does not have a certain effect from the independent variable to the dependent variable, it is called perfect mediation. Whereas if there is a decrease in the dependent variable which is influenced by the independent variable by entering the mediator, then it is referred to as partial mediation.

4. RESULTS

Effect of Marketing Activities on Social Media Against Brand Equity

From the regression test that has been done it was found that there was an effect of 50.5% caused by the influence of marketing activities on social media on brand equity (P value <0.05). This is in line with the research conducted by Godey et al (2015) that marketing activities on social media have a positive influence on brand equity. Marketing activities through social media not only have a positive impact on brand awareness, but also become one of the quick ways to build a brand image (Godey et al, 2015). Consumers who are exposed to marketing activities through social media of a brand will easily remember the brand especially if the content displayed by the brand's social media attracts their attention. Interest in content can influence customer actions to visit social media.

Based on Godey et al (2015) research, there are five elements in marketing activities through social media, namely entertainment, interaction, trendiness, customization, and Word of Mouth (WOM). From the results of this study, it was found that there were three of the most dominant elements, namely customization, entertainment, and interaction. The first dominant element is customization. Social media customization by a brand aims to satisfy consumers (Schmenner, 1986). By personalizing on social media pages, a brand can adjust and express itself, creating consumer engagement and loyalty (Martin and Todorov, 2010). The purpose of this customization is to convey the message and the value that is the target of the brand. Neat feeds, color selection, and product images that match the brand image make customers feel the brand has a professional image. Besides being attractive, social media content that provides information about the latest information can also influence customer brand awareness. Customers will routinely open a social media because they think the news or info delivered is more reliable than the info made by the company through traditional promotional activities (Mangold & Faulds, 2009; Vollmer and Precourt, 2008).
From the results of the study it was found that respondents also needed clear information on the social media of a brand. Information included on social media must be relevant and in accordance with consumer needs. For example, the NAM Watches watch brand displays content containing information about the product being sold and the brand value that you want to show, such as product specifications, product prices, location of purchase, and the advantages of the products it sells. According to Muntinga et al (2011), one of the motivations to follow the latest information on social media is to look for inspiration. For example, in the NAM brand watches provide fashion inspiration for consumers in how to dress according to the watch they sell.

The second most influential element is interaction. Interaction through social media greatly changes the pattern of relationships between brands and consumers (Gallaugher and Ransbotham, 2010; Kaplan & Haenlein, 2011). In terms of brand, these interactions can influence brand awareness and brand image of the brand. In addition, the results of the interactions that are built can provide input for brands to always improve quality according to the needs of their customers. From the consumer side, the existence of interactions can lead to a sense of comfort, comfort and trust in a brand. The communication is also a means for consumers to provide opinions and recommendations for brands.

Therefore, according to the type of social media group described by Zhu and Chen (2015), Instagram belongs to the category of content-based social media focusing on content, discussion and comments on content because its main purpose is to interact with other people, in this case customer. One brand of watches that uses social media as a tool for interaction is Daniel Wellington. Daniel Wellington gives free hours to influencers to then post on their social media with the hashtag #danielwellington. When entering a picture on social media, influencers are given the opportunity to use their particular discount code. In addition, Daniel Wellington also held a photo contest called pick of the day. The winner of this contest will be featured on Daniel Wellington's Instagram page and will get a free watch from Daniel Wellington. This social media activity has made Daniel Wellington's Instagram page followed by more than 4.3 million people and there are 1.98 million Instagram posts using the #danielwellington hashtag.

The third dominant element is entertainment. Consumers feel comforted by content content on social media so it is important for a brand to provide entertaining content. This is also in line with previous research that seeking entertainment or pleasure is one reason someone uses social media (Muntinga, 1977a; Johnson, Kaye, Bichard, & Wong, 2007; Valenzuela and Park, 2014).

Another element in marketing activities through social media which also gives a positive influence on brand equity is electronic Word of Mouth (e-WOM). e-WOM is considered to have credibility, empathy and relevance that is higher than what the web says a brand (Gruen, Osmonbekov, and Czaplewski, 2006. One method that can be used by watch brands is endorsement. Endorsement can increase brand equity because of the popularity of endorsers, in addition to endorsement, a brand can provide a positive response to consumers who provide e-WOM on social media, for example, give positive comments on content containing e-WOM about watch brands, is using social media features, such as the Instagram Story feature that can display content from customers who provide recommendations about the brand, which can build bonds with consumers so as to strengthen brand equity.

From the results of the study, it can be concluded that marketing activities through social media positively influence brand equity. This is in line with previous research conducted by Godey et al (2015) which states that brand equity, which consists of brand awareness and brand image, can be significantly affected by marketing activities through social media. From the questions given in the questionnaire, respondents answered that respondents could easily
remember a watch brand, seen from marketing activities through social media. This is due to continuous exposure to content on social media so that consumers become easy to remember the character of the brand. The content presented in social media influences how a brand's image can be understood by consumers so that the desired brand image is formed in the minds of consumers.

*Effect of Marketing Activities on Social Media Against Customer Responses*

In the second regression test, the results show that the R square value is 0.334 and the P value is less than 0.334. In this regression test, it can be seen that marketing activities on social media affect brand equity by 33.4%. This is in line with previous research conducted by Godey et al (2015), which states that marketing activities on social media positively influence customer responses. Consumers who are exposed to marketing activities through social media of a brand can influence their preferences in choosing a brand so that when consumers will buy a watch product, the brand will enter the choice. In addition, content on social media also affects consumer loyalty to a brand.

Based on Godey et al (2015) research, there are 5 elements in marketing activities through social media, namely entertainment, interaction, trendiness, customization, and Word of Mouth (WOM). From the results of this study, it was found that there were 3 most dominant elements, namely customization, entertainment, and interaction. The first dominant element is customization. Customization is done by a brand so that social media becomes attractive and has different characters from other brands. In addition, information provided on social media must also be informative and easily understood by consumers. Attractive content and up-to-date information give consumers the impression that a brand can be more easily remembered by consumers so that when consumers are looking for a product, the brand's social media will be first searched. In addition, positive responses from other consumers to a brand that is shown on social media also make consumers feel that the brand can be trusted and included in its choice.

The second dominant element is interaction. Social media is a forum that allows the formation of an online community for fans of a brand. From the results of this study it is known that the majority of respondents are Seiko brand users and are from the Seiko watch community. The dynamics that occur support the theory through communities and fans who have formed and have strong ties. In this online community, customers and prospective Seiko customers can exchange information about Seiko products. This happens because prospective customers usually tend to see testimonials from other customers (Verma, Stock and McCarthy, 2012) and that can be done through social media from this Seiko brand. Through discussion on social media this means that Seiko is the main topic of the online media community every day, this makes Seiko always on the top of mind of their customers so that the more customers buy the Seiko brand, the more customers will think about Seiko products. In addition, the results of this study also show that respondents have high loyalty to a brand so respondents are willing to pay more for their chosen brand than other brands that have equal quality. For example, the interactions that occur on Seiko's social media pages on Instagram contain product descriptions, advantages, prices, and information on where to buy the watch. Up-to-date information delivered by a brand is accompanied by product images and content that is interesting and in accordance with the value advantages that a brand wants to communicate to its customers. Seiko has quite informative social media both from the latest products released, the latest brand and product campaigns,
collaboration with public figures, their latest marketing activities, to the opening of their new stores so that potential customers can easily find the information needed.

The third dominant element is entertainment. Entertaining content can make consumers comfortable and happy to visit a brand's social media. Social media marketing activities must take into account things that will increase consumer loyalty, for example as product giveaway by the Seiko brand when launching their new product, Seiko customers only need to take photos in the booth provided by Seiko then upload them to their social media pages. After that Seiko will choose the best photo to be given their latest watch for free. Customers see this not only as a free gift by a brand but also as an appreciation and form of gratitude from a brand to their customers. Entertaining content can influence the willingness of buyers to pay premium prices because social media is considered as a medium to seek excitement. Therefore, it is important to create entertaining content so that consumers can consistently visit these social media.

From the results of the study, it can be concluded that marketing activities through social media positively influence customer responses. This is in line with previous research conducted by Godsey et al (2015) which states that marketing activities through social media influence brand preference, willingness to pay premium prices, and consumer brand loyalty. Exposure to information on social media that contains recommendations has an effect on consumers so consumers can more easily remember the brand. This is because consumers tend to use recommendations from their partners as sources of information and sources of their opinions before making a purchase. In addition to recommendations, social media can also increase consumer loyalty. The form of interaction in social media makes consumers feel comfortable and close so that it can strengthen loyalty.

**Effect of Brand Equity on Customer Responses**

In the third influence test, the R square value is 0.410 and the P value is less than 0.310. In this test it can be concluded that brand equity influences customer response by 41.0%. This is also in accordance with the research conducted by Godsey et al (2015) that brand equity has a positive influence on customer response. The usefulness and benefits of brand equity for companies have long been debated, as is the debate about how to strengthen brand equity with the right marketing activities.

Based on the research of Godsey et al (2015), that there are two elements of brand equity that have a positive effect on customer response, namely brand awareness and brand image. The higher brand awareness of a brand, the consumer will be easier to put the brand into a brand preference. Brand preference shows that a brand is top of mind for consumers, so that if a brand in a category can be directly mentioned by consumers, it can be said that the brand has strong brand awareness in that category. When there are many brands that compete in the market, consumers will tend to choose brands based on what they know and feel about the brand (Keller, 2003).

In this study, respondents answered that they would still choose this brand even though other brands have equal quality. This shows that brands have been chosen by consumers as the main brands of various types of watch brands available (Truong, McColl, & Kitchen, 2010; Vigneron & Johnson, 2004). For example, in a watch brand, the Seiko brand is the brand mentioned in the answers to the questionnaire from the choices of watch brands presented. It can be said that the brand awareness of the Seiko brand is strong enough so that when consumers will buy a watch, the Seiko brand will enter in their preferences. On the other hand, brand awareness illustrates
how consumers can identify a brand under certain conditions (Rossiter and Percy, 1987). The strength of brand awareness can also affect consumer loyalty. This can be shown when consumers can know the characteristics of a brand. Consumers with high loyalty will easily find out how the model or type of product is released from the brand. For example, the Seiko brand has a large community. Consumers in the community can be said to have high loyalty. They can easily distinguish characters from the Seiko brand with other watch brands, such as models and variants of Seiko watches compared to other brands.

Brand image is defined as consumer perception of the image that appears in the minds of consumers on a brand (Aaker, 1991). The image shown by a brand through social media can affect consumer loyalty. This loyalty can also have an impact on the desire of consumers to pay premium prices. From this study also found that respondents are willing to pay higher than other brands and the chosen brand of respondents must rise first before the respondent decides to move to another brand. This is due to the strong brand image of a brand that has an influence on the desire to pay premium prices.

Premium prices are defined as willingness to pay more for customers for a brand than for other brands (Netemayer et al., 2004). For example, users of the Seiko and Tag Heuer brands. Seiko users will be willing to pay more for the Seiko brand than Tag Heuer even though the Tag Heuer product has the same specifications and quality. This is because the Seiko brand equity is considered higher than the Tag Heuer brand equity because the Seiko brand community is stronger than the Tag Heuer brand in Indonesia. In addition to loyalty and willingness to pay premium, brand image can also influence consumer brand preference. If the image of a brand is in accordance with the personality and needs of consumers, then the brand is included in its preferences. For example, the Seiko brand is closely associated with a sporty and casual image because it takes out many watches with diver models that can be used on various occasions.

From the results of the study, it can be concluded that brand equity has a positive influence on customer response. This is in accordance with previous research conducted by Godey et al (2015) that brand equity consisting of brand awareness and brand image positively affects customer responses. Myers (2003) revealed that brand equity has an influence on brand preference and shows a strong relationship. Strong brand equity will also strengthen the brand in its preferences. Another researcher, Prasad and Dev (2000) states that high brand equity is associated with high customer satisfaction, brand preference, loyalty, and premium prices. Brand equity can give consumers confidence to pay at a premium price.

Brand loyalty is seen as the extent to which consumers state that they will buy back a brand or product in the future after buying the product or brand. Respondents consider that they are loyal to this brand and are willing to recommend this brand to their partners through social media, furthermore that their chosen brand is the main choice in purchasing watches and social media from this brand is the main reference for respondents if they want see the latest products on their chosen brand.

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**Brand Equity as A Mediation Variable On The Effect Of Marketing Activities On Social Media Against Customer Responses**

Based on the theory of Baron and Kenny (1986), it can be concluded that Brand Equity becomes a mediating variable in the effect of marketing activities on the media on customer responses. This is due to the regression test on lines a and b after the existence of brand equity shows significant results (p value <0.05). In addition, the value of c ‘decreased from 0.6268 to 0.2704 so that there is an indirect effect caused by brand equity. This is in line with the study of Godey et al (2015), that brand equity became a mediating variable in the influence of marketing activities through social media on customer responses.

From the results of the study, it can be said that it is important for a brand to strengthen activities related to brand equity along with promotional activities through social media. Investment in brand equity will increase the influence of marketing activities through social media on customer responses (Godey et al, 2015). A brand that is well known and has a good image in the eyes of consumers will be easier to remember so that promotions carried out through social media will be more trusted. As a result, the brand is included in the choice before consumers make a purchase.

In addition to the brand preference, brand image can also give confidence to consumers to pay at a premium price. Professional images on social media can convince consumers that the
products in the brand have good quality so consumers want to pay a higher price. Along with this, loyalty has become an important response from the existence of brand equity as this mediating variable. Consumer loyalty can be influenced by marketing activities on social media that are creative and interesting in accordance with the brand value provided so that consumers feel that the brand is a good, well-known and professional brand. The brand value delivered strengthens consumer loyalty due to the consistency of marketing done by social media.

Based on the results of the study, the Seiko brand emerged as the most widely mentioned and preferred brand of respondents. Seen from one of the social media owned by the Seiko brand, Instagram social media content contains images of Seiko products and information related to the events held by Seiko. The Seiko brand image is displayed on Instagram social media content in accordance with the value of the brand that Seiko wants, which has the latest technology, high specifications as well as a brand that has experience in the watch industry. From other social media, such as Facebook, social media content contains more discussion related to products. Elements of interaction in marketing activities through social media provide a place for consumers to get information and communicate not only with brands but also with other consumers. This is supported by high Seiko brand equity so that consumer loyalty will be even stronger. With the existence of quite high brand equity, Seiko consumers also want to pay for products at a premium price because of the quality of Seiko products that are highly trusted by consumers.

5. CONCLUSION AND IMPLICATIONS

The results of this study show that marketing activities through social media have a positive influence on brand equity. Of the five components of social media marketing activity, namely entertainment, interaction, trendiness, customization and word of mouth have an effect on a positive effect on brand equity and customer response. From the results of the research and answering the objectives of the study, the results were:

1. There is a positive influence between marketing activities using social media on brand equity in watch brands in Indonesia. The results of this study indicate that customers are interested in social media a brand that has interesting, entertaining content and provides up-to-date information because customers use social media to seek entertainment and relaxation. Consumers who are exposed to marketing activities through social media of a brand will easily remember the brand especially if the content displayed by the brand's social media attracts their attention. Interest in content can influence customer actions to visit social media. This is related to the form of message customization and social media carried out by a brand. Neat feeds, color selection, and product images that match the brand image make customers feel the brand has a good image. Besides being attractive, social media content that provides information about the latest information can also influence customer brand awareness. Consumers who can interact directly with brands through social media will feel a bond with the brand so that they can increase brand equity. Marketing activities through social media carried out by a brand are also influenced by electronic word of mouth circulating on social media. Information in electronic word of mouth can affect brand equity because other consumers can associate that information with brands so it is important for a brand to control electronic word of mouth circulating on social media.
2. There is a positive influence between marketing activities using social media on customer responses to watch brands in Indonesia. The results of this study also state that marketing activities on social media have a positive influence on customer responses. Exposure to information on social media that contains recommendations from users has an effect on consumers so consumers can more easily remember the brand. In addition, social media is a forum that allows the formation of an online community for fans of a brand. From the results of this study it is known that the majority of respondents are Seiko brand users and are from the Seiko watch community. In this online community, customers and prospective Seiko customers exchange information about Seiko products. On the other hand, consumer loyalty to a watch brand can be seen from the relevance of the content to the product, the popularity of the content, and the quantity of the appearance of a brand on social media.

3. There is a positive influence between brand equity and customer responses to watch brands in Indonesia. The next results show that brand equity has a positive influence on customer response. In this study, respondents answered that they would still choose this brand even though other brands have equal quality. From this study also found that respondents are willing to pay higher than other brands and the chosen brand of respondents must rise first before the respondent decides to consume other brands. This shows that brand equity has an influence on the desire to pay premium prices. In addition respondents also consider that they are loyal to this brand and are willing to recommend this brand to their partners through social media, furthermore that their chosen brand is the main choice in purchasing watches and social media from this brand is the main reference respondents if they want to see the latest products on their chosen brand.

4. Brand equity acts as a mediating variable in the influence of marketing activities using social media on customer responses. From the results of the study, it can be said that it is important for a brand to strengthen activities related to brand equity along with promotional activities through social media. A brand that is well known and has a good image in the eyes of consumers will be easier to remember so that promotions carried out through social media will be more trusted. As a result, the brand is included in the choice before consumers make a purchase.

In this study there are several limitations, including:
1. This study only analyzes two components of brand equity, namely brand awareness and brand image on a watch brand.
2. This study does not distinguish between types of social media that are used as references in the assessment of marketing activities through social media.
3. This research does not distinguish between official social media and unofficial social media from a watch brand.
4. This study cannot provide an overview of marketing effectiveness using social media on brand equity and customer response between one brand and another.

In marketing activities through social media, it is very important for watch brands to find out the desires of their customers and find out whether the needs of their customers can produce effective communication through social media. Therefore, watch companies must carry out the following strategies if they want to increase their brand equity which will affect the customer response. The results of this study show that there is a positive influence between marketing
activities using social media on brand equity in watch brands in Indonesia. The results of this study indicate that customers are interested in social media a brand that has interesting, entertaining content and provides up-to-date information because customers use social media to seek entertainment and relaxation. Therefore a watch brand can do the following:

1. The social media of the watch brand must also have social media that has entertainment and interesting content and provide information needed by customers of this brand such as information about the latest products and other information relevant to the information a brand wants to convey to customers.

2. Watch brands must provide up-to-date information and inspiration on their social media because customers follow the social media of a watch brand because they need information and inspiration from this social media. The information submitted can be in the form of general knowledge about watches, history, dress inspiration, and information about the features and advantages of watch products.

3. Increase brand awareness and brand image by designing content with colors that match the brand image that you want to display. For example, if you want to show the brand as a brand that is attached to the image of men, then the design shown must show masculinity.

This study also mentions that marketing activities on social media have a positive influence on customer responses. Exposure to information on social media that contains recommendations from users has an effect on consumers so consumers can more easily remember the brand. For this reason, brands can do the following:

1. Brand watches must do social media customization such as adjusting content and information contained on social media. For example, an attractive design on the Instagram page can also be done to attract consumers' attention.

2. The social media of a brand must also have the convenience of being accessible to customers, this can be supported by easy-to-remember social media identity selection.

3. Next, the social media of a watch brand must also be able to be a medium of interaction, both between the brand and the customer but also the media and the means of communicating with other customers. The social media of a watch brand is also required to be able to reply to messages, both comments and direct messages quickly and must be willing to respond to customer comments, whether positive or negative comments because social media here is a suggestion of interaction between a watch brand and a customer.

While brand equity acts as a mediating variable in the influence of marketing activities using social media on customer responses. From the results of the study, it can be said that it is important for a brand to strengthen activities related to brand equity along with promotional activities through social media. A brand that is well known and has a good image in the eyes of consumers will be easier to remember so that promotions carried out through social media will be more trusted. Therefore, in social media a brand must display a good and professional image in order to create good brand equity for the brand.

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The Impact of Service Quality on Tourist’ Trust Through the Reputation of Dive Trip Operators in Indonesia

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**Abstract**

As the largest island country in the world, Indonesia has vast potential for marine tourism. Dive tourism, in particular, is one of the growing tourism in the archipelago. Nevertheless, dive tourists tend to favor foreign-backed dive trip operators more than the local-owned ones due to their service quality and reputation. The aim of this research is to analyze the impact of service quality on dive tourists through the reputation of dive trip operators in Indonesia. The method employed in this research is the variable- or component-based SEM (structural equation modelling), which is the PLS (Partial Least Square), to verify the connection between each variable. The result shows that the service quality of dive trip operators has no direct impact on tourists’ trust. Nevertheless, it is the reputation of these operators’ service quality that may affect their trust.

**Keywords**: tourism, dive trip operators, service quality, reputation, trust

1. **INTRODUCTION**

Indonesia, as an island country, has vast potential for marine tourism, which has been a growing trend globally (Akhyarudin, 2012). Activities tourists can get involved in are, but not limited to, diving, snorkelling,
surfing, sailing, boating, and fishing. The Ministry of Tourism of the Republic of Indonesia classifies marine tourism as a special interest tour that, specifically, falls in the category of adventure tourism.

Dive tourism, as a part of adventure tourism, has been steadily growing in Indonesia. The seas in Indonesia are rich with natural resources, inviting tourists to enjoy their beauty through dive tourism. The World Tourism Organization (WTO) describes dive tourism as “persons traveling to destination with the main purpose of their trip being to take part in scuba diving. The attraction of the destination is almost exclusively related to its diving quality rather than any other factor, such as the quality of accommodation or land-based attraction.”

In 2014, the *Indonesia Dive Directory*, a comprehensive dive tourism guide book that covers 500+ dive sites in 25 dive destinations as well as a list of dive trip operators in Indonesia, was published. And in 2016, Indonesia was awarded “The Best Beautiful Diving Destination 2016” by the Diving Resort & Travel (DRT) Show Taiwan.

The attraction to partake in dive tourism has been a boost to the industry in Indonesia. This can be seen by the increasing numbers of dive trip operators as well as dive certification every year, as explained by Cipto Aji Gunawan at the “Opportunities and Challenges for Dive Trip Operators in Indonesia” seminar.

![Figure 1. The Growing Number of Dive Trip Operators In Indonesia](image)

Even though “the Best Beautiful Diving Destination 2016” award by the DRT Show Taiwan has proven that the reputation of dive tourism in Indonesia has been going better, as well as the increasing number of dive trip operators, dive tourists still tend to trust foreign-backed dive trip operators due to their reputation. Bontis, Lorne & Alexander (2007) state that the most dominating factor on the reputation of a company is the service quality given through the reliability and the response of its workers. Furthermore, in their research, Bartikowski, Giafranco, Sharon (2010) mention that a reputation is based on customers’ reaction towards a good or a service given as well as communication and their interaction with the company’s employee or management (Walsh & Beatty, 2009). Therefore, in order to grow tourists’ trust in local dive trip operators, they must be able to compete with the foreign-backed operators in service quality.

Artigas’ research (2015) uses environment and infrastructure concepts as a cognitive perception variable. Whilst in this research, the environment and the infrastructure are concepts used in the tangible indicator on the service quality variable. Furthermore, the indicator in the service quality variable, such as the tool used in O’Neill’s et al (2015) research, is adopted. Naidoo’s et al (2016) research also discusses dive tourism focusing on factors that determine tourists’ satisfaction in Mauritius –factors such as boats, dive sites, safety, dive equipment, and the expertise of the staff. In this research, dive facilities, dive sites, safety, the adequacy of dive equipment, and the staff’s expertise are used as indicators that demonstrate service quality. While Artigas (2015) states familiarity plays a role in building reputation, in this research, reputation is measured by product and service, innovation, intangible liabilities, and offered products that are good for money. Similar concept as Artigas’ is the indicator for intangible reliabilities where familiarity becomes one of the factors e.g. a dive operator’s friendliness towards dive tourists, shown on the operator’s ability to understand the tourists’ cultures and habits. Furthermore, in this research, service quality also affects reputation. Based on the explanation above, this research aims to determine the impact of dive trip operators’ service quality on trust through their reputation.
2. LITERATURE REVIEW

**Service Quality**

There are different theories and understandings regarding service quality, such as the ones by Gronroos (2007) and Parasuraman (2007) who represent perspectives or characteristics of 2 traditional academics, European and American. The European paradigm puts forward the service quality concept that is perceived through its functions and technicalities. The physical environment where the service is given becomes the basis of the thought. Meanwhile, the American school of thought emphasizes more on the gap between customers’ expectations and the service given. The way consumers receive service is the underlying thought of Gronroos’ (2007) concept. Whereas Parasuraman (2007) stresses on consumers’ appraisal related to the service given based on their expectations as well as the existing condition when the service is given (Sujay, 2015).

According to Solnet (2011), there is no accurate measurement in regards of the concept of quality service due to the lack of unanimous agreement in general. Debates regarding the measurement refer to few basic concepts; 1. SERVQUAL model; 2. SERVPERSF model; and 3. Nordic framework.

One of the service quality models often used in marketing researches is the SERVQUAL model (Service Quality), as what Parasuraman, Zeithmal, and Berry developed (Lupiyoadi, 2008). In this approach (Parasuraman et al 2007; Walker, 2008), the service standard includes the following dimensions: a. Reliability in delivering the promised service, consistent, and punctual; b. Responsiveness in answering and the willingness to help and provide the promised service; c. Assurance of integrity, which is employees’ knowledge and attitude as well as their ability to inspire trust and certainty; d. Empathy that shows that the company cares for its customers, individually; e. Tangibles, which are physical proves of facilities and infrastructure (communication facility, data processor facility, physical facility, equipment, employees).

**Reputation**

In the business world, a company’s reputation is one of the most important elements for it to thrive in a competition. A company’s reputation is a key indicator for a company’s success. It is complex (Basya, 2006) yet extremely valuable if managed correctly as it is an intangible asset.

According to Herbig, Millewicz, Golden in Loureiro & Elisabeth (2010), a company’s reputation is basically an award achieved by the company due to its qualities that it is able to develop and create new things to meet its customers’ needs. According to Weiss in Lujun Su et al (2016), reputation is an integral trust or decision where a company is given the highest regard and honor. Caruana and Michael (2010) suggest that a customer’s perception towards a company hinges on what they know or think about the company. Based on experts’ discussions regarding reputation, it is now understood that if a company wants to build its reputation, it has to win the customers’ hearts.

**Customers’ Trust**

Trust is accumulated and, just like digital technology, can increase productivity exponentially. Thus, there is a necessity to be proficient in building trust. Kotler and Keller (2012) express how important it is for a company to build customers’ trust and confidence, and, therefore, their willingness to go after anything that the company has to offer in order to build a stronger and more personal relationship with its customers (Bejou and Palmer in John Egan, 2008).

According to Storbacka and Lehtinen (2008), trust is formed when one party makes the commitment and has confidence on the integrity and reliability of its partner whilst Costabile (2008) expresses that trust is a measurement of a company’s reliability based on customers’ perspective that leads to the transactional or interaction stage determined by the fulfillment of product performance and satisfaction expectations. Both definitions conclude that trust is a generalized hope, that one’s word is reliable. Mitchell in Egan (2008)
explains that Customers’ Trust is a probity (the focus on trust, integrity, and reputation), equity (related to fair-mindedness and benevolence), and reliability (related to trustworthiness, accuracy, and consistency of a product or service expected from the warranty issued by a company).

Previous Researches

O’Neill et al (2000) explains that dive tourism is a topic rarely researched, but that service quality, such as the existing facilities and equipment, the appearance of the company, and the location are all determining factors on dive tourism service quality. Naidoo’s et al (2016) research also discusses about dive tourism that mainly focuses on factors that determine tourists’ satisfaction in Mauritius, such as boat facility, dive sites, safety, adequate equipment, and staff’s expertise. Gregori’s et al (2014) research explains that customers’ trust on trip operators is determined on the clarity of information given.

Bontis, Lorne & Alexander (2007) mention that the most dominating factor on a company’s reputation is the given service quality through its employees’ reliability and response. Furthermore, Bartikowski, Giafranco, Sharon (2010) state that reputation is based on customers’ perspective on their reaction towards a given good or service, communication, and interaction with a company’s employees or management (Walsh & Beatty, 2009). Therefore, it is understood that service quality is tightly related to a company’s reputation.

Trust can be developed in a buyer-seller relationship in any industry. Meanwhile, reputation is a value given by an individual or a customer to a company. It gives customers certainty about the company’s ability, integrity, and goodwill. Certainty helps establishing trust especially when all parties involved have never interacted beforehand that there is not enough knowledge regarding respective parties (McKnight, 2002). Marlien’s (2010) research clarifies that reputation affects customers’ trust. However, researches done by Pratiwi and Silviandari (2013) and Hendratmo (2013) point out that reputation gives no significant effect to trust. This may happen when costumers do not prioritize the reputation of a company as they view it not expending its business and, therefore, its reputation is deemed stagnant.

3. RESULT AND DISCUSSION

The answered and returned questionnaires are processed with PLS. The testing begins with the outer model, which covers the Convergent Validity and the Discriminant Validity. Afterwards, the testing calculates the average variance extracted (AVE), composite reliability, and Cronbach’s Alpha. The final calculation is done by analysing the inner model that shows the strength of the effect between the variables.

The outer model specifies the relationship between latent variables and the indicator or the manifested variables. It defines how each indicator block connects with the latent variables. Below is an figure of early calculation result processed with Smart PLS3.0 application.
Figure 2. The Impact of Service Quality (X) on Reputation (Y) and Its Impact on Trust (Z)

Based on the calculation above, it is known that the values of loading factor are all above 0.5, that all the examined variables can be used in the next analysis. Next, the outer model is tested, which covers the convergent validity (loading factor), discriminant validity, composite reliability, and cronbach’s alpha. Evaluating the model can be done by using the convergent validity on the reflective model by looking at the value of the loading factor. Each observed variable is deemed valid if the value of the loading factor is above 0.5.

Below are the loading factor values of the observed variables. Based on Figure 1 and Table 1, it can be explained that all the loading factor values of the observed variables meet the requirement, which has to be bigger than 0.5 that all the variables are adequate to use in the model. The indicator variable can also be calculated by evaluating the cross loading result (discriminant validity) that shows that the correlation value of the indicator within the same variable is better compared to other variable indicators. The result shows that the correlation value of the indicator within the same variable is better than the other variable indicators that the discriminant validity is met.

<table>
<thead>
<tr>
<th>Convergent Validity (Outer Loadings)</th>
<th>Impact</th>
<th>Loading Factor</th>
<th>Test Criteria &gt; 0.50</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1.1.1 &lt;- X1.1</td>
<td>0.924</td>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>X1.1.2 &lt;- X1.1</td>
<td>0.964</td>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>X1.1.3 &lt;- X1.1</td>
<td>0.922</td>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>X1.2.1 &lt;- X1.2</td>
<td>0.930</td>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>X1.2.2 &lt;- X1.2</td>
<td>0.947</td>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>X1.2.3 &lt;- X1.2</td>
<td>0.948</td>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>X1.3.1 &lt;- X1.3</td>
<td>0.974</td>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>X1.3.2 &lt;- X1.3</td>
<td>0.970</td>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>X1.4.1 &lt;- X1.4</td>
<td>0.944</td>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>X1.4.2 &lt;- X1.4</td>
<td>0.934</td>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>X1.5.1 &lt;- X1.5</td>
<td>0.963</td>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>X1.5.2 &lt;- X1.5</td>
<td>0.959</td>
<td>Valid</td>
<td></td>
</tr>
<tr>
<td>Y1.1 &lt;- Y1</td>
<td>0.954</td>
<td>Valid</td>
<td></td>
</tr>
</tbody>
</table>
Below is the table that shows the average variance extracted from the calculation. According to the ruling, the Average Variance Extracted value has to be above 0.5. The Average Variance Extracted shows that all latent variables have Average Variance Extracted values above 0.5 that the model has sufficient convergent validity and can be tested further.

Table 2. Average Variance Extracted (AVE)

<table>
<thead>
<tr>
<th>Latent Variable</th>
<th>Average Variance Extracted (AVE)</th>
<th>Test Criteria &gt; 0.5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability (X1.1)</td>
<td>0.877</td>
<td>Valid</td>
</tr>
<tr>
<td>Responsiveness (X1.2)</td>
<td>0.886</td>
<td>Valid</td>
</tr>
<tr>
<td>Assurance (X1.3)</td>
<td>0.945</td>
<td>Valid</td>
</tr>
<tr>
<td>Empathy (X1.4)</td>
<td>0.882</td>
<td>Valid</td>
</tr>
<tr>
<td>Tangibles (X1.5)</td>
<td>0.924</td>
<td>Valid</td>
</tr>
<tr>
<td>Product and Service (Y1)</td>
<td>0.914</td>
<td>Valid</td>
</tr>
<tr>
<td>Innovation (Y2)</td>
<td>1.000</td>
<td>Valid</td>
</tr>
<tr>
<td>Intangible Liabilities (Y3)</td>
<td>1.000</td>
<td>Valid</td>
</tr>
<tr>
<td>Offered Prod. that are Good for Money (Y4)</td>
<td>1.000</td>
<td>Valid</td>
</tr>
<tr>
<td>Integrity (Z1)</td>
<td>0.897</td>
<td>Valid</td>
</tr>
<tr>
<td>Consistency (Z2)</td>
<td>0.947</td>
<td>Valid</td>
</tr>
<tr>
<td>Reliability (Z3)</td>
<td>0.931</td>
<td>Valid</td>
</tr>
<tr>
<td>Service Quality (X)</td>
<td>0.783</td>
<td>Valid</td>
</tr>
<tr>
<td>Reputation (Y)</td>
<td>0.805</td>
<td>Valid</td>
</tr>
<tr>
<td>Trust (Z)</td>
<td>0.807</td>
<td>Valid</td>
</tr>
</tbody>
</table>

Composite reliability calculates the internal consistency and its value has to be above 0.7. Below is the calculation result. Based on the composite reliability table, it is known that the model in this research meets the standard of composite reliability value as each latent variable has value above 0.7 that all models have high reliability and can be tested further.

Table 3. Composite Reliability

<table>
<thead>
<tr>
<th>Latent Variable</th>
<th>Composite Reliability</th>
<th>Test Criteria &gt; 0.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability (X1.1)</td>
<td>0.956</td>
<td>Valid</td>
</tr>
<tr>
<td>Responsiveness (X1.2)</td>
<td>0.959</td>
<td>Valid</td>
</tr>
<tr>
<td>Assurance (X1.3)</td>
<td>0.972</td>
<td>Valid</td>
</tr>
<tr>
<td>Empathy (X1.4)</td>
<td>0.937</td>
<td>Valid</td>
</tr>
<tr>
<td>Tangibles (X1.5)</td>
<td>0.960</td>
<td>Valid</td>
</tr>
<tr>
<td>Product and Service (Y1)</td>
<td>0.955</td>
<td>Valid</td>
</tr>
<tr>
<td>Innovation (Y2)</td>
<td>1.000</td>
<td>Valid</td>
</tr>
</tbody>
</table>
The reliability test is enhanced with cronbach’s alpha where all expected value are above 0.7. Based on the Cronbach’s Alpha table, it is known that all latent variables have values above 0.7 that all models have high reliability and can be tested further.

**Table 4. Cronbach's Alpha**

<table>
<thead>
<tr>
<th>Latent Variable</th>
<th>Cronbach’s Alpha</th>
<th>Test Criteria &gt;0.7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability (X1.1)</td>
<td>0.930</td>
<td>Valid</td>
</tr>
<tr>
<td>Responsiveness (X1.2)</td>
<td>0.936</td>
<td>Valid</td>
</tr>
<tr>
<td>Assurance (X1.3)</td>
<td>0.941</td>
<td>Valid</td>
</tr>
<tr>
<td>Empathy (X1.4)</td>
<td>0.866</td>
<td>Valid</td>
</tr>
<tr>
<td>Tangibles (X1.5)</td>
<td>0.918</td>
<td>Valid</td>
</tr>
<tr>
<td>Product and Service (Y1)</td>
<td>0.906</td>
<td>Valid</td>
</tr>
<tr>
<td>Innovation (Y2)</td>
<td>1.000</td>
<td>Valid</td>
</tr>
<tr>
<td>Intangible Liabilities (Y3)</td>
<td>1.000</td>
<td>Valid</td>
</tr>
<tr>
<td>Offered Products that are Good for Money (Y4)</td>
<td>1.000</td>
<td>Valid</td>
</tr>
<tr>
<td>Integrity (Z1)</td>
<td>0.885</td>
<td>Valid</td>
</tr>
<tr>
<td>Consistency (Z2)</td>
<td>0.945</td>
<td>Valid</td>
</tr>
<tr>
<td>Reliability (Z3)</td>
<td>0.926</td>
<td>Valid</td>
</tr>
<tr>
<td>Service Quality (X)</td>
<td>0.975</td>
<td>Valid</td>
</tr>
<tr>
<td>Reputation (Y)</td>
<td>0.938</td>
<td>Valid</td>
</tr>
<tr>
<td>Trust (Z)</td>
<td>0.952</td>
<td>Valid</td>
</tr>
</tbody>
</table>

The inner model specifies relations between latent variables (structural model) that describes the relation between the variables based on the substantive theory.
Figure 3. The T-Statistical Value of The Impact of Service Quality (X) on Reputation (Y) and on Trust (Z)

The figure above shows that the t-statistical value of each indicator (the observed variable) is significant in calculating the dimension or the variable as also explained in the table below.

Table 5. Evaluation on T-Statistical Value of Each Indicator

<table>
<thead>
<tr>
<th>t-statistics</th>
<th>Impact</th>
<th>Test Criteria &gt;1.96</th>
</tr>
</thead>
<tbody>
<tr>
<td>X1.1.1 &lt; X1.1</td>
<td>13.991</td>
<td>Significant</td>
</tr>
<tr>
<td>X1.1.2 &lt; X1.1</td>
<td>35.152</td>
<td>Significant</td>
</tr>
<tr>
<td>X1.1.3 &lt; X1.1</td>
<td>16.286</td>
<td>Significant</td>
</tr>
<tr>
<td>X1.2.1 &lt; X1.2</td>
<td>26.381</td>
<td>Significant</td>
</tr>
<tr>
<td>X1.2.2 &lt; X1.2</td>
<td>29.083</td>
<td>Significant</td>
</tr>
<tr>
<td>X1.2.3 &lt; X1.2</td>
<td>38.796</td>
<td>Significant</td>
</tr>
<tr>
<td>X1.3.1 &lt; X1.3</td>
<td>66.182</td>
<td>Significant</td>
</tr>
<tr>
<td>X1.3.2 &lt; X1.3</td>
<td>45.346</td>
<td>Significant</td>
</tr>
<tr>
<td>X1.4.1 &lt; X1.4</td>
<td>28.035</td>
<td>Significant</td>
</tr>
<tr>
<td>X1.4.2 &lt; X1.4</td>
<td>42.476</td>
<td>Significant</td>
</tr>
<tr>
<td>X1.5.1 &lt; X1.5</td>
<td>60.782</td>
<td>Significant</td>
</tr>
<tr>
<td>X1.5.2 &lt; X1.5</td>
<td>44.162</td>
<td>Significant</td>
</tr>
<tr>
<td>Y1.1 &lt; Y1</td>
<td>49.319</td>
<td>Significant</td>
</tr>
<tr>
<td>Y1.2 &lt; Y1</td>
<td>58.826</td>
<td>Significant</td>
</tr>
<tr>
<td>Z1.1 &lt; Z1</td>
<td>34.395</td>
<td>Significant</td>
</tr>
<tr>
<td>Z1.2 &lt; Z1</td>
<td>41.446</td>
<td>Significant</td>
</tr>
<tr>
<td>Z2.1 &lt; Z2</td>
<td>85.495</td>
<td>Significant</td>
</tr>
<tr>
<td>Z2.2 &lt; Z2</td>
<td>77.284</td>
<td>Significant</td>
</tr>
<tr>
<td>Z3.1 &lt; Z3</td>
<td>62.418</td>
<td>Significant</td>
</tr>
<tr>
<td>Z3.2 &lt; Z3</td>
<td>66.556</td>
<td>Significant</td>
</tr>
</tbody>
</table>

Table 5 shows that all t-statistical values are above 1.96 that the indicator blocks make positive and significant impact to reflect the variables. Next, the inner model is tested by calculating the R-square, testing the hypothesis, F-square, predictive relevance (Q-square value), and the Goodness of Fit (GoF). The 0.75 R-
square value concludes that the model is strong, 0.50 concludes that the model is moderate, and 0.25 the model is weak.

**Table 6. Evaluation of R-Square Value**

<table>
<thead>
<tr>
<th>Variable</th>
<th>R-Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability (X1.1)</td>
<td>0.914</td>
</tr>
<tr>
<td>Responsiveness (X1.2)</td>
<td>0.868</td>
</tr>
<tr>
<td>Assurance (X1.3)</td>
<td>0.867</td>
</tr>
<tr>
<td>Empathy (X1.4)</td>
<td>0.817</td>
</tr>
<tr>
<td>Tangibles (X1.5)</td>
<td>0.873</td>
</tr>
<tr>
<td>Product and Service (Y1)</td>
<td>0.929</td>
</tr>
<tr>
<td>Innovation (Y2)</td>
<td>0.858</td>
</tr>
<tr>
<td>Intangible Liabilities (Y3)</td>
<td>0.862</td>
</tr>
<tr>
<td>Offered Products that are Good for Money (Y4)</td>
<td>0.607</td>
</tr>
<tr>
<td>Integrity (Z1)</td>
<td>0.903</td>
</tr>
<tr>
<td>Consistency (Z2)</td>
<td>0.816</td>
</tr>
<tr>
<td>Reliability (Z3)</td>
<td>0.899</td>
</tr>
<tr>
<td>Service Quality (X)</td>
<td>-</td>
</tr>
<tr>
<td>Reputation (Y)</td>
<td>0.227</td>
</tr>
<tr>
<td>Trust (Z)</td>
<td>0.830</td>
</tr>
</tbody>
</table>

Based on tabel 6, it is known that the impact of **Service Quality** (X) on **Reputation** (Y) is as much as 0.227 or 22.7%, while the remaining 77.3% is affected by other unobserved factors. The 0.227 r-square value is considered weak. Therefore, it is understood that service quality does not play a major role in determining the reputation of dive trip operators. This implies that their reputation cannot only be determined with their service quality.

The impact of **Service Quality** (X) on **Reputation** (Y) and on **Trust** (Z) is as much as 0.830 or 83.0%, while the remaining 17.0% is affected by other unobserved factors. The 0.830 r-square value is considered strong. Therefore, it is understood that even though service quality weakly impacts reputation, the reputation gained from service quality strongly implicates customers’ trust.

Testing the hypothesis in this research is done by observing the processed PLS data on Path Coefficients part as shown in table 7 below.

**Table 7. Impact between variables**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Original Sample (O)</th>
<th>t-Statistics</th>
<th>H₀</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Impact of <strong>Service Quality</strong> (X) on <strong>Reputation</strong> (Y)</td>
<td>0.477</td>
<td>2.121</td>
<td>Rejected</td>
<td>Significant</td>
</tr>
<tr>
<td>Impact of <strong>Reputation</strong> (Y) on <strong>Trust</strong> (Z)</td>
<td>0.869</td>
<td>6.588</td>
<td>Rejected</td>
<td>Significant</td>
</tr>
<tr>
<td>Impact of <strong>Service Quality</strong> (X) on <strong>Trust</strong> (Z)</td>
<td>0.082</td>
<td>0.583</td>
<td>Accepted</td>
<td>Not significant</td>
</tr>
</tbody>
</table>

Based on tabel 7, it is known that the **Service Quality** (X) variable positively and significantly impacts the **Reputation** (Y) variable as the value of t-calculation is bigger than the t-table, which is 1.96 or 2.121 > 1.96. This can be defined that when service quality improves, the reputation of dive trip operators also improves significantly.
The *Reputation* (Y) variable positively and significantly impacts the *Trust* (Z) variable as the value of t-calculation is bigger than the t-table, which is 1.96 or 6.588 > 1.96. This can be defined that when the reputation of dive trip operators improves, customers’ trust on the operators also improves significantly.

The *Service Quality* (X) variable positively and significantly impacts the *Trust* (Z) variable as the t-calculation is bigger than the t-table, which is 1.96 or 0.583 < 1.96. This can be defined that when the service quality of dive trip operators improves, customers’ trust also improves although not significantly.

Based on the calculation, it is known that the r-square value of *Service Quality* (X) effect on *Reputation* (Y) and its impact on *Trust* (Z) is as much as 0.830. Therefore, the $F_{\text{calculation}}$ can be calculated as below:

$$
F = \frac{(n-k-1)\sum_{i=1}^{n} P_{YX_i}P_{XX_i}}{k\left\{1 - \sum_{i=1}^{n} P_{YX_i}r_{YY_i}\right\}}
$$

$$
F = \frac{(62-2-1)\times0.830}{2\left\{1-0.830\right\}} = 144.029
$$

Based on the calculation above, the value of $F_{\text{calculation}}$ is as much as 144.029. With $\alpha = 0.05$ and the degrees of freedom $v_1 = 2$ and $v_2 = 59$ (n-(k+1)), it is concluded that the $F_{\text{table}}$ is 3.153. As the value of $F_{\text{calculation}} > F_{\text{table}}$ (144.029 > 3.153) then $H_0$ is rejected, which means that *Service Quality* (X) significantly affects *Reputation* (Y) and it significantly impacts *Trust* (Z). The following formulas are used to test the predictive relevance:

$$Q^2 = 1 - (1 - R^2)$$

$$Q^2 = 1 - (1 - 0.685)$$

$$Q^2 = 0.830 \, (83.0\%)$$

Model error 100% - 83.0% = 17.0%

This shows that the model of the analysis result explains that the 83.0% of the varied data can examine the phenomenon used in this research, while the remaining 17.0% is explained by other unobserved components in this model.

This index is used to evaluate the calculation model as well as the structural model. Furthermore, it provides a simple measurement for the whole model prediction. The 0.10 GoF value concludes that the GoF is included in the small category, the 0.250 GoF value concludes that the GoF is included in the medium category, and the 0.36 GoF value concludes that the GoF is included in the large category. Based on this, the GoF index is calculated with the square root of the value of the average communality index, and the average R-square is as follow:

$$\text{GoF} = \sqrt{\text{Avrg Comm} \times \text{Avrg R}^2}$$

$$= \sqrt{0.907 \times 0.805}$$

$$= 0.854$$
Based on the calculation above, it is known that the GoF value is as much as 0.854, therefore, it belongs in the large category.

Based on statistical analysis that has been done, the discussion of this research is that Tourists believe that the reputation of dive trip operators in Indonesia can be affected by their service quality. However, the service quality of these operators, no matter how good the quality is, has weak impact yet significant in affecting the perception of the reputation of the dive trip operators (22.7%). The remaining 77.3% is affected by factors other than service quality.

Despite the weak effect, service quality significantly affects reputation. This finding contradicts the research done by Bontis, Lorne & Alexander (2007) who state that the most dominating factor of a company’s reputation is the service quality given through its employees’ reliability and response. This is due to the fact that many tourists still perceive the reputation of local dive trip operators is worse than the foreign-backed ones, and this is why the service quality of these local operators is not the dominating factor in their reputation.

Additionally, service quality has a key role in establishing customers’ trust through reputation. In other words, customers’ trust on dive trip operators can be formed through consistent service quality that they become reputable operators. McKnight (2002) states that reputation gives confidence in customers regarding a company’s ability, integrity, and goodwill; that even though the service quality has weak yet significant effect on their reputation, it helps boosting tourists’ trust on these operators. The reputation of a company is deemed good when a customer believes it is a trustworthy brand when they feel safer and more secure in using its product or service (Dwyer and LaGace, 2007). In this regard, dive tourists can feel the service quality of the dive trip operators that they are able to rate the reputation of the operators. Meanwhile, service quality alone does not significantly affect customers’ trust. Therefore, it is understood that reputation plays an important role in establishing customers’ trust.

4. CONCLUSION AND RECOMENDATION

Based on the analysis result as mentioned in the previous chapter, it can be concluded that Service Quality positively and significantly affects the Reputation variable. Therefore, the reputation of dive trip operators can be formed through their service quality. Reputation positively and significantly affects the Trust variable. Therefore, customers’ trust can be established through reputation. Service Quality positively yet not significantly affects the Trust variable. Therefore, customers’ trust cannot be established only through service quality. Service Quality positively and significantly affects Reputation and also significantly affects Trust. Therefore, customers’ trust can be established through service quality-affected reputation.

In the dive trip operators business, reputation formation is an important factor in building customer trust. Meanwhile, the reputation of a dive trip operator can be built through the provision of quality services that can provide satisfaction to customers. However, only improving service quality does not have a significant impact on building customer trust without being accompanied by an increase in the company's reputation. Therefore, it is suggested that in building customer trust, improving service quality should have a goal to improve the company's reputation so that customer trust can be achieved.

REFERENCES


The Influence of Tourism Service Quality on Tourist Satisfaction and Tourist Loyalty: A study of foreign tourist in Indonesia

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Abstract

This study aims to find out tourism service quality of tourism products, tour guide, transportation, and accommodation have significant direct influence to tourist loyalty and indirect influence through tourist satisfaction in Indonesia tourism. Survey using self-administered questionnaire were used to collect the data. Convenience sampling method was used and collected 415 respondents of foreign tourist visited Indonesia. Partial Least Square Structural Equation Model (PLS-SEM) used to test the research hypothesis. The results of this study found that tourism products, transportation, and accommodation significant influence both direct and indirect to tourist loyalty though tourist satisfaction in Indonesia tourism. The result of this study provides essential contribution for tourism industry to create personalized tourism service quality as most respondents are self-organized instead of using tour agent. This study was limited in collecting data in only two most visited locations by foreign tourist. So, the result could not be generalized to all tourism locations, hence, its present opportunities for future research to study on different tourism locations. This study contributes to increasing knowledge in tourism service quality which benefit every country in competing on creating sustainable tourism.

Keywords: Service quality, Tourist satisfaction, Tourist loyalty, Tourism products.

1. INTRODUCTION

Tourism is one of the most important business activities in the world as its contributed about 30% of export services revenue for many countries (Khuong & Ha, 2014; UNWTO, 2018).
Through foreign exchange revenues, the creation of employment opportunities, business opportunities, and infrastructure development make tourism one of the key drivers in the socio-economic progress of a country (Indonesia Ministry of Tourism, 2017). Further, tourism supports continuously in the development of various sector projects for developing countries in the world including Indonesia (Hermansyah & Waluya, 2012). Indonesia has diversities of natural resources if managed properly able to provide many benefits such as creating the area become tourist destinations (Setiawan, 2015). Through Wonderful Indonesia's branding, Indonesia is ranked 42 in 2017 out of 131 countries in the world then jumped from 70th rank in 2013 (World Economic Forum, 2018). Since tourism has become the leading sector in Indonesia, the government targets 20 million foreign tourists to Indonesia by 2019 (Yahya, 2017). This has become a hard work for the Indonesian Ministry of Tourism to achieve this target.

Therefore, Indonesia tourism requires to strengthen its position. Tourism growth must be supported by tourism facilities to support the achievement of sustainable tourism development (Ginting & Sasmita, 2018). This was supported by the Minister of Tourism of Indonesia, Arief Yahya (2015) emphasis the three key concepts of tourism called 3A’s of Attractions, Accessibility and Amenities which been developed further by many researchers. As Cholik (2017) developed further the concept of 3A’s as tourism product, infrastructure, and tour service believe could support the successful of tourism growth specifically in Indonesia tourism.

In fact, there are some major concerns which positioned itself lag behind neighborhood countries (PIDII, 2016; World Economic Forum, 2017). Even though Indonesia tourism has increased its rank from year to year, however, Indonesia positioned itself far away from neighborhood countries (Malaysia, Singapore, and Thailand) (Jokowi, 2016; World Economic Forum-WEF, 2017). Such concerns are incompetently managed of tourism product in order to compete with other country’s destination (Hermawan, 2017; Cholik, 2017), lacked of knowledge of tour guide in providing tourism information (Purwaningsih, 2013), lack of accessibility in transportation sector (Jokowi, 2016; Yahya, 2017), and low availability of rooms available, parking areas and internet coverage (Sharm, 2017). Thus, mentioned by Okello & Yerian (2009) that satisfied tourists are based on tourism service quality such as tourism product, facilities of accommodation, accessibilities of transportation, and tour guide. By providing excellent service quality satisfaction will be developed which further impact to revisit intention also recommending to others (Sukmadi, 2014). Therefore, this study aims to find out tourism service quality of tourism products, tour guide, transportation, and accommodation have significant direct influence to tourist loyalty and indirect influence through tourist satisfaction in Indonesia tourism.

2. LITERATURE REVIEW

2.1 Tourist Loyalty

Tourist loyalty is define as a consistency of tourists to always visit a destination even though competitors offer new destinations with superior quality attributes (Bagus & Utama, 2015). According to Chiu, Zeng, & Cheng, (2016), tourist satisfaction significantly leads to tourist loyalty. This shows the important role of satisfaction in developing tourist behavior to loyalty. One way that is used to establish loyalty is by providing good quality service by meeting the needs of its customers, providing fast and accurate information and providing convenience time
in performing services drive to customer loyalty (Sulistyowati, 2015). Added by Bagus & Utama (2015) stated that there is empirical evidence that satisfaction is a strong indicator influences the loyalty of tourists to revisit also recommending to friends, relatives, family and others to visit.

2.2 Tourist Satisfaction

Satisfaction is a psychological result of a process that begins with the introduction of needs and ends with the customer's experience of the product or service (Malodia & Singla, 2017). According to Eid & El-Gohary (2015), satisfaction is not only cognitive but also emotional. This shows that tourists will feel satisfied when enjoying a trip if their expectations are in accordance with the experience they felt during the trip, but if their expectations are not in accordance with the reality they are not satisfied. Travelers will get satisfaction from the services provided by tourism products, if the service meets service quality and in accordance with tourist expectations (Bagus & Utama, 2015). In this study, tourist satisfaction is measured through the perceived performance of each variable and the quality of tourism services.

2.3 Service Quality

In the tourism industry it is created by the process of delivering quality services such as hospitality, courtesy and efficiency, and outcomes of services such as accommodation, food and recreational facilities (MG Gallarza et al., 2016). Service quality standards used to success can create a tourist destination for tourist satisfaction, perceived satisfaction can encourage travelers to re-visit these destinations so travelers can foster loyalty (Suksamdi, 2014). According to Canny, (2013), service quality has a positive effect on tourist satisfaction, in other words, maintaining the quality of service is important to maximize the satisfaction of tourists. Vignati & Laumans, (2010) explained that the quality of service that consists of a tour guide, accommodation, food, attractions, and transportation has a dependency to one another, if one fails to provide services that will have an impact on customer satisfaction and loyalty rating. Because the quality of service is one of the factors to increase tourist satisfaction (Herath, 2016), In this study, researchers took four variables of service quality that tourism products, tour guide, transportation, and accommodation.

2.4 Tourism Product

Tourism product are a combination of various components such as the attractions of a region or tourist destination, available facilities, accessibility to and from tourist destinations (Setiyorini, 2017). According to Herath (2016), tourism products have three as the main components, namely attractions, facilities at tourist sites, and accessibility in reaching tourist attractions, in other words tourism products are not as aircraft transportation but many components or temporary packages.

Tourism product are a form of service consisting of a set of attributes including attractions, facilities, accessibility and service that customers receive as one that can fulfill needs and desires in gaining experience (Hayati & Novitasari, 2017; Liangi et al 2010). Tourism products that are supported by facilities and quality can increase tourist interest and loyalty (Zaenuri, 2012). Efforts to create quality standards for a product or services are adjusted to the standard expected by tourist in order to create tourist satisfaction (Aprilia & Pangestuti, 2017).
2.5 Tour Guide

The tour guide is the ambassador of the nation, or at least an ambassador for the area where doing its job, all of which is expressed by the tour guide is considered by tourists as a reflection of the character of the local community as well as something delivered by a tour guide will be trusted by tourists as the knowledge that will always be remembered to return home (Isdarmanto, 2017). Huang, Hsu, & Chan, (2012) tour guide divides into two dimensions, namely, professional competence and interpersonal skills and organization.

2.6 Transportation

According Cholik, (2017) defined transport as tourism infrastructure that cooperation at regional level to create an attractive tourist destination. Transportation system include roads, modes of transportation, availability and costs. A good transportation system encourages tourist to go somewhere (Ali, et. al., 2017). The availability of transportation facilities is measured from several aspects such as easy access to transportation facilities, timely use of transportation facilities, and service quality of transportation personnel (Soebiyantoro, 2010). The purpose of the transportation system is to increase the competitiveness of destination, besides that the quality of transportation has an influence on the experience and satisfaction of tourist (Virkar, 2018).

2.7 Accommodation

Isdarmanto (2017) defined property as a means to provide an accommodation that can be equipped with meal service draft drink and other services are classified and its management can be differentiated according to the level of quality standards such as stars and non-stars, rentals, Guest House, apartment etc. that have market segment of its own. According to Baniya & Thapa, Isdarmanto (2017) there are several indicators on the accommodations that make tourists feel satisfied and been returned such as information on hotel customer, various lodging options, the strategic location and the ease of check in and check out, the ability of employees who understand the needs of travelers and employee courtesy.

3. Methodology

3.1 Data collection procedure

Data collection was done using convenience sampling method and collected 415 respondents of foreign tourist visited Indonesia. Survey using self-administered questionnaire were used to collect the data. A seven-point Likert scale was used in 29 items of six constructs of the study. According to Oh & Kim, 2017) Likert scale for tourism industry is using seven points. By using seven-point likert scale, it provides an opportunity for respondents to be able to give more option and increase point differentiation besides that respondents can choose their desires specifically. Based on data from the Indonesian Central Bureau of Statistics (BPS) (2018) of the five major foreign tourist arrivals to Indonesia according to the main entry of departure in 2018 Bali and Jakarta are the main departure for foreign tourist enter Indonesia which represented more than 50% of Indonesia.
3.2 Data analysis procedure

This study used analysis Partial Least Square-Structural Equation Model (PLS-SEM) with SmartPLs software version 3.2.8. According to Sarwono (2015) SEM can complete the analysis by one estimate where the others finished with multiple regression equation, SEM can perform factor analysis, regression and path at the same time, it can be concluded that SEM has characteristics that are as technical analysis to further confirm than to explain (Yamin, 2011). Further, Sarwono, (2015) PLS-SEM is an alternative to using SEM analysis which allow the data are not normally distributed (SEM requires normal distribution of data), even so the normal distribution of data can also be used. Therefore PLS-SEM is also known as soft modelling techniques where the requirements are not as strict as that of the SEM, for example, in the scale of measurement, the sample size and distribution of the residuals.

Figure 2 Theoretical Framework

3.3 Hypothesis testing

H1: Tourism products significantly influence tourist satisfaction in Indonesia.
H2: Tour guides significantly influence tourist satisfaction in Indonesia.
H3: Transportation significantly influence tourist satisfaction in Indonesia.
H4: Accommodation significantly influence tourist satisfaction in Indonesia.
H5: Tourist satisfaction influences tourist loyalty in Indonesia significantly.
H6: Tourism products through tourist satisfaction have a significant influence on tourist loyalty in Indonesia.
H7: Tour guides through tourist satisfaction have a significant influence on tourist loyalty in Indonesia.
H8: Transportation through tourist satisfaction has a significant influence on tourist loyalty in Indonesia.
H9: Accommodation through tourist satisfaction has a significant influence on tourist loyalty in Indonesia.
4. Results

4.1 Profile of respondents

The results of the respondents' profiles in this study, the majority of respondents in this study came from Asian countries and male gender with age less than 21-30 years and not married. In terms of work, respondents' responses are students with high school education. The frequency of visiting foreign tourists to Indonesia visits are 2-4 times to Indonesia with friends and relations with a length of visit between 7-14 days. The majority of tourists understand Indonesian tourism through the Internet and choose to organize themselves without using a travel agent or others.

4.2 Measurement model

- Measurement of the Outer Model

The measurement of the outer model is done by linking the entire manifest variable (indicator) with the latent variable and the result show by calculating Algorithm in SMART PLS software. Outer model measurements are divided into three, that is convergent validity, discriminant validity, and reliability. Convergent validity test results are measured based on the value of the loading factor (outer loading) of the construct indicator. According to Ghozali (2015), the parameter for convergent validity is the value of outer loading > 0.5. The items with loading value less than 0.5 were removed. The test results show that of the 29 constructs there are 2 invalid constructs because the outer loading value is less than the parameter 0.5. The both constructs are (TG1 and T5) must be removed to get a better final result. Further, (Hair et al., 2017) suggested several parameters assess discriminant validity and reliability which include average variance extracted (AVE) and composite reliability (CR). The AVE value should be 0.5 and above. All of variables in this research have AVE 0.5 and above which indicates that the measurement correlates positively with the alternative measures of the same value of the construct. Test the validity of discrimination that is assessed based on the value of cross loading, to be reliable value of the indicator correlation with the latent variables in the block is greater than the value of the indicator correlation with other latent variables in the block. Additionally, discriminant validity also shown in the diagonal elements are higher than the off-diagonal elements in the respective row and columns (Fornell-Lacker criterion). Lastly, to measure reliability, CR must be higher than 0.7. The CR value shown in this research above 0.8 and it can be concluded that all indicators indeed measure each construct.

<table>
<thead>
<tr>
<th>Measurements</th>
<th>Outer Loadings</th>
<th>AVE</th>
<th>CR</th>
<th>Final items (Initial items)</th>
</tr>
</thead>
<tbody>
<tr>
<td>P1</td>
<td>0.820</td>
<td>0.511</td>
<td>0.839</td>
<td>4 (4)</td>
</tr>
<tr>
<td>P2</td>
<td>0.698</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P3</td>
<td>0.718</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P4</td>
<td>0.631</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TG2</td>
<td>0.855</td>
<td>0.562</td>
<td>0.885</td>
<td>3 (4)</td>
</tr>
<tr>
<td>TG3</td>
<td>0.807</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TG4</td>
<td>0.819</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1</td>
<td>0.654</td>
<td>0.634</td>
<td>0.896</td>
<td>4 (5)</td>
</tr>
<tr>
<td>T2</td>
<td>0.658</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>T3</td>
<td>0.779</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T4</td>
<td>0.807</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A1</td>
<td>0.660</td>
<td>0.685</td>
<td>0.867</td>
<td>5 (5)</td>
</tr>
<tr>
<td>Source: Data outcomes (SMART PLS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 2 Result Cross Loading

<table>
<thead>
<tr>
<th>Accomodation</th>
<th>Tourist Satisfaction</th>
<th>Tourist Loyalty</th>
<th>Tour Guide</th>
<th>Tourism Products</th>
<th>Transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1</td>
<td>0.660</td>
<td>0.419</td>
<td>0.292</td>
<td>0.659</td>
<td>0.451</td>
</tr>
<tr>
<td>A2</td>
<td>0.705</td>
<td>0.503</td>
<td>0.327</td>
<td>0.468</td>
<td>0.501</td>
</tr>
<tr>
<td>A3</td>
<td>0.728</td>
<td>0.546</td>
<td>0.374</td>
<td>0.453</td>
<td>0.594</td>
</tr>
<tr>
<td>A4</td>
<td>0.694</td>
<td>0.483</td>
<td>0.355</td>
<td>0.447</td>
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</tr>
<tr>
<td>A5</td>
<td>0.781</td>
<td>0.532</td>
<td>0.319</td>
<td>0.767</td>
<td>0.531</td>
</tr>
<tr>
<td>P1</td>
<td>0.501</td>
<td>0.519</td>
<td>0.491</td>
<td>0.445</td>
<td>0.820</td>
</tr>
<tr>
<td>P2</td>
<td>0.500</td>
<td>0.471</td>
<td>0.331</td>
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<td>P3</td>
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<td>0.442</td>
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<td>0.476</td>
<td>0.718</td>
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<tr>
<td>P4</td>
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<tr>
<td>TG2</td>
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<td>0.855</td>
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<td>TG3</td>
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<td>0.507</td>
</tr>
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<td>TG4</td>
<td>0.643</td>
<td>0.507</td>
<td>0.259</td>
<td>0.819</td>
<td>0.517</td>
</tr>
<tr>
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<td>0.456</td>
<td>0.422</td>
<td>0.300</td>
<td>0.464</td>
</tr>
<tr>
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<td>0.375</td>
<td>0.409</td>
<td>0.343</td>
<td>0.381</td>
</tr>
<tr>
<td>T3</td>
<td>0.623</td>
<td>0.536</td>
<td>0.394</td>
<td>0.674</td>
<td>0.490</td>
</tr>
<tr>
<td>T4</td>
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<td>0.565</td>
<td>0.339</td>
<td>0.729</td>
<td>0.502</td>
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<tr>
<td>TL1</td>
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<td>0.432</td>
<td>0.850</td>
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<td>TL2</td>
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<td>0.872</td>
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<tr>
<td>TL3</td>
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<td>0.333</td>
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<td>TL4</td>
<td>0.423</td>
<td>0.370</td>
<td>0.697</td>
<td>0.366</td>
<td>0.332</td>
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<tr>
<td>TL5</td>
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<td>0.412</td>
<td>0.729</td>
<td>0.229</td>
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<tr>
<td>TS1</td>
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<td>0.749</td>
<td>0.368</td>
<td>0.449</td>
<td>0.500</td>
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<tr>
<td>TS2</td>
<td>0.490</td>
<td>0.761</td>
<td>0.419</td>
<td>0.434</td>
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<td>TS3</td>
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<td>0.762</td>
<td>0.393</td>
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<td>TS4</td>
<td>0.542</td>
<td>0.781</td>
<td>0.384</td>
<td>0.523</td>
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<td>TS5</td>
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<td>0.773</td>
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<td>0.470</td>
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</tr>
<tr>
<td>TS6</td>
<td>0.481</td>
<td>0.663</td>
<td>0.280</td>
<td>0.418</td>
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Source: Data outcomes (SMART PLS)
Table 3 Fornell-Lacker criterion

<table>
<thead>
<tr>
<th>Construct</th>
<th>A</th>
<th>TS</th>
<th>TL</th>
<th>TG</th>
<th>P</th>
<th>T</th>
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<tbody>
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<td>A</td>
<td>0.715</td>
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<tr>
<td>TS</td>
<td>0.698</td>
<td>0.749</td>
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<td></td>
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</tr>
<tr>
<td>TL</td>
<td>0.468</td>
<td>0.525</td>
<td>0.797</td>
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</tr>
<tr>
<td>TG</td>
<td>0.777</td>
<td>0.611</td>
<td>0.356</td>
<td>0.827</td>
<td></td>
<td></td>
</tr>
<tr>
<td>P</td>
<td>0.723</td>
<td>0.662</td>
<td>0.518</td>
<td>0.620</td>
<td>0.720</td>
<td></td>
</tr>
<tr>
<td>T</td>
<td>0.728</td>
<td>0.673</td>
<td>0.528</td>
<td>0.732</td>
<td>0.635</td>
<td>0.728</td>
</tr>
</tbody>
</table>

Source: Data outcomes (SMART PLS)

Figure 3 Outer model
Inner Model Evaluation (Structural Model)

Figure 4 Inner Model

Table 4 Path Coefficient and Hypothesis Testing

<table>
<thead>
<tr>
<th>No.</th>
<th>Relationship</th>
<th>t-values</th>
<th>P values</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>P -&gt; TS</td>
<td>4.688</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H2</td>
<td>TG -&gt; TS</td>
<td>0.224</td>
<td>0.823</td>
<td>Rejected</td>
</tr>
<tr>
<td>H3</td>
<td>T -&gt; TS</td>
<td>4.743</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H4</td>
<td>A -&gt; TS</td>
<td>4.111</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H5</td>
<td>TS -&gt; TL</td>
<td>11.827</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H6</td>
<td>P -&gt; TS -&gt; TL</td>
<td>4.067</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H7</td>
<td>TG -&gt; TS -&gt; TL</td>
<td>0.224</td>
<td>0.823</td>
<td>Rejected</td>
</tr>
<tr>
<td>H8</td>
<td>T -&gt; TS -&gt; TL</td>
<td>4.257</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
<tr>
<td>H9</td>
<td>A -&gt; TS -&gt; TL</td>
<td>3.844</td>
<td>0.000</td>
<td>Accepted</td>
</tr>
</tbody>
</table>

Source: Data outcomes (SMART PLS)

Based on Table 4 above shows that there are seven relationships between variables that have a significant effect, that is tourism products on tourist satisfaction, transportation on tourist satisfaction, accommodation on tourist satisfaction, tourist satisfaction on tourist loyalty, tourist products through tourist satisfaction to tourist loyalty, transportation through tourist satisfaction towards tourist loyalty and accommodation through tourist satisfaction with tourist loyalty.

4.3 Discussion

This study aimed to understand the factors that determine the loyalty of foreign tourists who visit Indonesia as a tourist destination with tourist satisfaction as moderators or intervening variables. To achieve this objective, this study uses service quality that becomes the standard in
the success of a tourist destination (Sukmadi, 2014).

This study found that tourism products, transportation and accommodation positively influence tourist satisfaction and loyalty. The results also found that tour guides did not have an influence on tourist satisfaction and loyalty. The results are discussed more specifically in the following sections.

- **Tourism products**

  The results of testing hypothesis 1 show that tourism products have a significant influence on tourist satisfaction in Indonesia with t count of 4.688 >1.96 with p value or a significance level of 0.000, then the hypothesis (H1) is accepted. The results of testing hypothesis 6 also show that tourism products have a significant influence on tourist loyalty through tourist satisfaction in Indonesia with a t count of 4.067 >1.96 with a p value or a significance level of 0.000, then the hypothesis (H6) is accepted.

  In this study, it is expected that the better the service quality of tourism product, tourists will feel satisfied and want to revisit a destination. The results of this study are also supported by Hayati & Novitasari (2017), which shows that the quality of tourism products such as attractions, available facilities and accessibility has a positive and significant influence on tourist satisfaction. This positive correlation may be due to the fact that most of the tourists who have visited more than once are therefore satisfied because according to their experience the services quality of tourism products such as the choice of diverse tourism products and information available both offline and online has met expectations tourists and can give an impression on tourists so as to make tourists revisit a destination.

- **Tour Guide**

  The results of testing hypothesis 2 show that tour guides do not have a significant effect on tourist satisfaction in Indonesia. This is indicated by t count of 0.224 <1.96 with p value or a significance level of 0.823, then the hypothesis (H2) is rejected. The results of testing hypothesis 7 also show that tourist guides through tourist satisfaction do not affect tourist loyalty in Indonesia with t count 0.224 <1.96 with p value or a significance level of 0.823, then hypothesis (H7) is rejected.

  This research is different from previous research conducted by Chan et al. (2015), which shows that the quality of tour guide services has a significant influence on tourist satisfaction and loyalty. This negative correlation can be caused by the results of foreign tourist respondents. It can be concluded that most respondents choose to organize themselves when they visit Indonesia without using travel agents or others, so that the quality of service from tour guides does not affect tourist satisfaction and tourist loyalty in Indonesia.

- **Transportation**

  The results of testing hypothesis 3 show that transportation have a significant influence on tourist satisfaction in Indonesia with t count of 4.743 >1.96 with p value or a significance level
of 0.000, then the hypothesis (H3) is accepted. The results of testing hypothesis 8 also show that transportation have a significant influence on tourist loyalty through tourist satisfaction in Indonesia with a t count of 4.257 > 1.96 with a p value or a significance level of 0.000, then the hypothesis (H6) is accepted.

In this study transportation has a significant relationship with tourist satisfaction and loyalty. This study is also supported by Ali et al. (2017), which shows that transportation has an influence on tourist satisfaction and loyalty. Therefore, the availability of adequate transportation facilities is very important to attract tourists to visit a tourist destinations. With the access of International Airports, foreign tourists will more easily reach tourist attractions and that will also bring investment.

- Accommodation

The results of testing hypothesis 4 show that accommodation have a significant influence on tourist satisfaction in Indonesia with t count of 4.111 > 1.96 with p value or a significance level of 0.000, then the hypothesis (H4) is accepted. The results of testing hypothesis 9 also show that Accommodation have a significant influence on tourist loyalty through tourist satisfaction in Indonesia with a t count of 3.844 > 1.96 with a p value or a significance level of 0.000, then the hypothesis (H9) is accepted.

This positive correlation might be attributable to the service quality of provided by hotel employees can give an impression on tourists so that tourists revisit and recommend to others. This result is also supported by research conducted by Ali et al. (2017), which shows a positive relationship accommodation has a significant influence on tourist satisfaction and loyalty.

- Tourist Satisfaction

The results of testing hypothesis 5 show that tourist satisfaction has a significant influence on tourist loyalty in Indonesia. This is indicated by t count of 11.827 > 1.96 with p value or a significance level of 0.000, then the hypothesis (H5) is accepted. This finding also reveals that tourist satisfaction is the strongest influence on the loyalty of tourists to visit Indonesia. This result is also supported by research conducted by Chan et al., (2015); Sukmadi, (2014) which provides empirical evidence that satisfaction directly and positively influences tourist loyalty arising from increased levels of satisfaction, tendency to return and recommend it to people other.

4.4 Implications and limitations

This research illustrates the importance of service quality in creating satisfaction and loyalty of tourists in a tourist destination. Service quality is the standard used for the success of tourist destinations in creating tourist satisfaction and loyalty (Sukmadi, 2014). The service quality focused on this study consists of four aspects, namely tourism products, tour guides, transportation and accommodation that can contribute to the tourism marketing literature.

An understanding of the quality of services such as tourism products, transportation and accommodation is needed to foster tourist satisfaction and loyalty. This study suggests ways to
maintain and improve the quality of services to support sustainable tourism. First, managerial efforts can be made to overcome the factors that can affect tourist satisfaction and loyalty in terms of quality of services such as tourism products, transportation and accommodation. Assuming that the importance of diversifying tourism products so that tourists do not feel bored and the detailed information on tourism products must be the same both offline and online so there is no miss communication. Then the availability of adequate transportation such as the availability of International Airports so that tourists more easily reach tourist attractions. In addition, accommodation is a condition for tourists when traveling (Poudel, 2013). In traveling, tourists spend at least one night at the tourist destination. Accommodation strives to meet these needs, by becoming a home that provides physiological and psychological basis for all tourist activities when traveling (Baniya & Thapa, 2017). To foster tourist satisfaction managers of tourism destinations can provide adequate room availability and internet and parking facilities. Previous research has shown that positive experiences of the quality of services provided by tourists can lead to satisfaction and loyalty of tourists (Sukmadi, 2014). Thus, the right tourism marketing strategy must be improved to develop tourist destinations and facilities. This requires a close relationship with state governments and tourism companies and maintains an effective evaluation system. Second, our results show a non-significant relationship between tour guides to tourist satisfaction and loyalty because tourists have their own perspective so that it does not affect tourist satisfaction and tourist loyalty.

There are several limitations when interpreting the results of this study. First, this study is limited to two cities in Indonesia (Bali and Jakarta). Therefore, the results may not reflect a comprehensive view. Therefore, the scope of future studies can be extended to cover different populations. This approach can also increase the results in the objective image, which in this study has a significant relationship. Determination of assessments analyzed in a way that might be biased because it only focuses on tourists in Indonesia. Second, related to research variables, this study only uses four variables to explain the satisfaction and loyalty of tourists visiting a destination. Thus, researchers in the future seek to improve variables related to service quality to further understand tourist satisfaction and loyalty.

5. Conclusion and Recommendation

This study concludes that the importance of maintaining and improving the quality of services to create satisfaction and loyalty of tourists, especially in the development of sustainable tourism. This study argues that Indonesia can become a major destination for foreign tourists to a destination with cooperation from relevant government agencies and tourism agents. This study shows that the quality of service for tourism products, transportation and accommodation can affect tourist satisfaction and loyalty. Thus, it must be considered an important factor in the process of sustainable tourism development. This can be used to make policies to improve the quality of tourism services and provide prospective tourist knowledge through media, the internet, and other promotional tools. This study is anticipated to begin enthusiasm in future research on sustainable tourism in Indonesia.
References


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Competitiveness of Various Resource Typologies in Indigenous Tourism: A Resource-Based View Approach

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Abstract

Wealth in indigenous people is a potential that needs to be explored. The RBV (resources based view) approach is one of the ways to identify various resources that exist in competitive indigenous people. This research was conducted to observe the various resources that exist in Ngaju Dayak indigenous people living in Central Kalimantan and the competitiveness of each resource using the RBV approach. The results of this study indicate that the characteristics of good resources which include habitat, heritage, history and handicraft are categorized into four aspects namely, sustainable competitiveness, temporary competitiveness, partial competitiveness and not competitive. Every object in an indigenous community has different competitiveness. Each competitiveness category shows the wealth of variables and attributes that form superior variables on each object.

Keywords: indigenous people, sustainable competitiveness, temporary competitiveness, partial competitiveness and not competitive

1. INTRODUCTION

Indonesia is an archipelago consisting of more than 17,504 islands and is also a multi-ethnic country (Ministry of Home Affairs, 2004). Each island has a dominant native population both in terms of language and customs. There are 1,128 ethnic groups in Indonesia and if separated by race, the Indonesian population consists of two different races, namely the Austronesian race which is the majority and the Melanesian race which is a native of the island of Papua. AMAN (Archipelago Indigenous Peoples Alliance) in 1999 estimated that the number of indigenous people in Indonesia ranged between 50-70 million or around 20% of the Indonesian population. This number is large compared to the estimated number of regional indigenous people in Asia and the world.

Many studies have been carried out on indigenous people, but mostly in the field of anthropology and carried out by interdisciplinary researchers, both experts in geography,
economics, sociology, politics, ecology and experts from other social disciplines (Butler & Hinch, 2007; Notzke, 2004; Ryan, C & Huyton, J., 2000).

Anthropological studies of indigenous people have been carried out to describe the lives of indigenous people in various ways such as the meaning of cultural symbols (Levi & Strauss, 1963; Strathern,1971; Gell, 1975; Seeger, 1975; Turner, 1980), how to dress (Veber, 1992; Conklin, 1997; Ewart, 2007; Gow, 2007; Knauf, 2007; Santos & Granero, 2009), the art of caring of the body (Schildkrout, 2004; O’Hanlon, 2007), history and daily life (McIntosh, 2008).

Another research by Hilderd Geertz (2010) studied ethnography in Javanese society, especially customs in the Javanese families. Jaspan (1984) conducted a research on the pluralistic Indonesian society consisting of several ethnicities, which each of them has different language and customs and culture. Van Vollenhoven (1987) examined indigenous people and found that Indonesian society was divided into 19 customary law circles with various ethnicities within them.

Further studies were also conducted to observe the relationship of indigenous people with the surrounding environment such as interaction between individuals in daily life (Pratt, 1998; Katz, 2003) and community life of indigenous people (Colton & Harris, 2007). Hoogenraad & Robertson (1997) examines the interaction between different customs and cultures of an ethnic group that views itself and seen by other groups as having different cultural unity. This happens as a result of shared cultural traits and continuous reciprocal interactions.

All of those researches are done because there is potential wealth that exists in the indigenous community. This study is carried out in the belief that indigenous people have various potentials with their own characteristics that need to be explored. The RBV approach is used to observe the various potentials of indigenous people which this approach is usually developed within a company and which is believed as relevant to identify various resources in indigenous people that have competitiveness. It is expected that with the RBV approach, this study does not only portray various resources that have competitiveness in indigenous people but it can also identify various resources based on their typologies and explain the characteristics of various existing typologies in order to obtain a clear understanding of the competitiveness of various resources in indigenous people's tourism.

**Dayak Ngaju in Central Kalimantan**

This study was conducted towards Ngaju Dayak Tribe in the province of Central Kalimantan. They are spread almost evenly in all districts. The Dayak Ngaju tribe in Gunung Mas Regency is very dominant because they inhabit along the Kahayan and Rungan rivers. The Gunung Mas district area was chosen as a research location because the characteristics of the people in this Regency are more homogeneous because they are inhabited by the Ngaju Dayak tribe. There are other tribes such as Maanyan Dayak from Barito, Banjar, Java and Timor watersheds, but their numbers are relatively small.
Gunung Mas Regency is one of the regencies in the province of Central Kalimantan which was established in 2002 from Kapuas district based on Law Number 5 of 2002. Astronomically, this district is located between ± 0° 18 "00 south latitude-01° 40" 30 "south-latitude and ± 113° 01" 00 east longitude 114° "01" 00 east longitude. The total population in Gunung Mas Regency is 130,305 people and 90% of them are Ngaju Dayak people. More migrants live in cities.

2. LITERATURE REVIEW

*RBV approach*

Barney (1991) associates resources with sustained competitive advantage by introducing the term VRIN (value, rarity, inimitable and non-substitutable) as the basic characteristics of resources that support competing companies. Barney (1991); Hooley, Piercy and Nicoulaud, 2012: 136), and Carpenter and Sanders (2009: 103) added exploitability to VRINE because when a company has unique and resources that are difficult to be copied by its competitors, which categorized this addition as superior resources, which later processed with a good capability, the company will be able to achieve competitive advantage which leads to sustained competitive advantage.

According to Burney (1991), resources are considered valuable when they can be used for strategy implementation so that they can produce effectiveness and efficiency. Furthermore, Carpenter and Sanders (2009: 104-108) described rarity characteristics when the resources are
not owned by other companies. Companies that have valuable and rare resources will be superior as long as competitors do not have or find similar substitutes. Then it can be inimitable if competitors cannot obtain valuable and rare resources quickly. It can be non-substitutable if competitors cannot get the same benefits by using a combination of different valuable resources.

Various Resources in the RBV Perspective

Wernerfelt (1984) defines resources as tangible and intangible assets. Tangible resources according to Wernerfelt (1984) are factories, temporary vehicles and machines and intangible resources such as brands, reputation and expertise of employees. The existence of tangible resources is easily identified because it can be seen in their form but easily replicable (Mulyono, 2013). While intangible resources are difficult to imitate and are more strategic (Marr, 2005).

Intangible resources in the form of relations resources that often referred to customer capital is defined as harmonious relationships owned by the company and its partners, both from reliable and quality suppliers, from customers who are satisfied with the services provided by the company, the company's relationship with the government and the surrounding community. While organizational resources is the ability of an organization or company to fulfill the company's routine process and its structure that supports efforts of employees to produce optimal intellectual performance and overall business performance, for example: the company's operational system in the form of planning, controlling, coordination and resource human system (planning, controlling, coordinating, HR system), manufacturing processes, organizational culture, management philosophy, brands and all forms of intellectual property owned by the company. Furthermore, human resources are considered as the source of knowledge, skills and competencies in an organization or company (Bontis, 2000) such as competencies in the form of talents, ability gained from experience and knowledge; attitude which includes motivation, commitment, habits and traits; intellectual agility as an agile attitude from members of an organization to develop innovation, and formulate and overcome problems; personal relationships include dexterity in developing and participating in networks.

According to Smith (1996) there are four critical potentials that constitute the potential resources that exist within indigenous peoples i.e. habitat, heritage, history and handicraft which is considered as key factors in indigenous people's tourism. In relation to both tangible and intangible resources and competitiveness, the potential resources in the indigenous community can be identified in various forms of both tangible and intangible resources in the form of habitat, heritage, history and handicraft. Every available resource can be identified by looking at the competitiveness of each object.

3. RESEARCH METHOD

This study is a qualitative research conducted to obtain an overview of the competitiveness of each resource that exists in indigenous people by using the criteria of VRINE (value, rarity, inimitable, non-substitutable and exploitability) as the basis for classifying the competitiveness of existing resources. The scope of the study was conducted by looking at four critical potentials according to Smith (1996) which consists of habitat, heritage, history and handicraft that exist in the Ngaju Dayak indigenous people.
**Table 1. Resources in Indigenous Peoples based on RBV and 4’s Smith Critical Potentials**

<table>
<thead>
<tr>
<th>Smith Critical Potential</th>
<th>V</th>
<th>R</th>
<th>I</th>
<th>N</th>
<th>E</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Value</td>
<td>Rarity</td>
<td>Inimitable</td>
<td>Non-Substitutable</td>
<td>Exploitability</td>
</tr>
<tr>
<td>1 Habitat</td>
<td>Access</td>
<td>?</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td></td>
<td>Resources</td>
<td>?</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td>3 History</td>
<td>Decision maker</td>
<td>?</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td></td>
<td>Conflict resolution</td>
<td>?</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
<tr>
<td></td>
<td>Handicraft marketing</td>
<td>?</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
</tbody>
</table>

**Explanation:**
- **Valuable:** the resources are valuable so they can be used for strategy implementation so that they can produce effectiveness and efficiency.
- **Rarity:** resources are not owned by other companies.
- **Inimitable:** competitors cannot get valuable and rare resources quickly.
- **Non-substitutable:** competitors cannot get the same benefits by using a combination of different valuable resources.
- **Exploitability:** resources can be processed and developed.

The researcher identifies the competitiveness of each object, every potential that exists with statements both “yes” and “no” in accordance with the results of interviews and observations in the field so that it can be known competitiveness in general of each object. The answer criterion of Sustainable Competitiveness will be given to indicators of critical potential which are concluded with “yes” answers for all VRINE criteria. No Competitiveness criterion applies if all indicators of critical potential are concluded with the answer “no”. If the critical potential is concluded in “yes” on the criteria of value while other criteria “no” then it is categorized in Balanced Competitiveness. While if more than one criterion is concluded with the word “yes” then it is said to have Temporary Competitiveness.

**Competitiveness of Object Related to Habitat**
There are five objects as the focus of research related to habitat, namely the location of Bawi Kameloh forest, Toyoi Betang house, Batu Mahasur waterfall, atu Suli and Hantapang Mujai. The description of competitiveness on various dimensions in each object can be seen in table 2.

**Table 2 Competitiveness of Habitat Objects Based on VRINE Criteria**

<table>
<thead>
<tr>
<th>Smith Critical Potential Of Habitat</th>
<th>V</th>
<th>R</th>
<th>I</th>
<th>N</th>
<th>E</th>
<th>Implication</th>
<th>Competitiveness Category</th>
<th>Dominant Competitiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Value</td>
<td>Rarity</td>
<td>Inimitable</td>
<td>Non-substitutability</td>
<td>Exploitability</td>
<td>Competitiveness Attribute</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>1 Bawi Kameloh Location</strong></td>
<td>Access</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Temporarily Competitiveness</td>
<td>Sustainable Competitiveness</td>
</tr>
<tr>
<td></td>
<td>Appeal</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable Competitiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Proximity</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable Competitiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diversity</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable Competitiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Resources</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Temporary Competitiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Marketing</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No Competitiveness</td>
<td></td>
</tr>
<tr>
<td><strong>2 Betang Toyoi Traditional House</strong></td>
<td>Access</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No Competitiveness</td>
<td>No Competitiveness</td>
</tr>
<tr>
<td></td>
<td>Appeal</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable Competitiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Proximity</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No Competitiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diversity</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No Competitiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Resources</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable Competitiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Marketing</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No Competitiveness</td>
<td></td>
</tr>
<tr>
<td><strong>3 Mahasur Stone</strong></td>
<td>Access</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Temporary Competitiveness</td>
<td>Sustainable Competitiveness</td>
</tr>
<tr>
<td></td>
<td>Appeal</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable Competitiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Proximity</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable Competitiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diversity</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable Competitiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Resources</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable Competitiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Marketing</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Temporary Competitiveness</td>
<td></td>
</tr>
<tr>
<td><strong>4 Suli Stone</strong></td>
<td>Access</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Temporary Competitiveness</td>
<td>Temporary Competitiveness</td>
</tr>
<tr>
<td></td>
<td>Appeal</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Temporary Competitiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Proximity</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
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</tr>
<tr>
<td></td>
<td>Diversity</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Temporary Competitiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Resources</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Temporary Competitiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Marketing</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No Competitiveness</td>
<td></td>
</tr>
</tbody>
</table>
Some objects that are considered less valuable in the aspect of access and proximity are the Toyoi Betang house and Hatapang Mujai sites because to get to these objects requires time and in difficult terrain. In order to reach the second location, you have to go through several sub-districts and through the roads that are not all paved. In addition, marketing aspects are not valuable in almost every object because there is no valuable marketing activity in developing each of these objects.

Competitiveness related to rarity aspect generally has advantages because in general most objects are rare. The marketing aspect of each object except the Batu Mahasur waterfall shows scarcity as something that is not owned because there is no specific and rare marketing activity. Likewise, the access dimension and proximity of Toyoi's betang house and Hatapang Mujai sites are considered not rare because in terms of access and proximity, they are far from ideal conditions.

Furthermore, an assessment of various aspects shows appeal and diversity as competitive that has advantages because they are difficult to imitate. While regarding aspects of access, proximity and marketing, they do not appear on almost every object. Difficult access and distant location are the nature of objects because these conditions are found in various objects in rural areas that still maintain the way of life of indigenous people.

Although every aspect of each object has its own advantages, but to get an irreplaceable or non-substitutable aspect is very difficult because only a few parts are considered important and non-substitutable such as aspects of distance and access to Bawi Kameloh location and Mahasur Stone waterfall. The distance and access available to these two objects is irreplaceable or non-substitutable because it is very difficult and rare to find an unspoiled object surrounded by dense forest and around the city. That is why access and short distance make these two dimensions irreplaceable.

There have been efforts to utilize and develop every dimension of the existing object but they are still very limited. Efforts to open access to remote objects have increased every year such as building a road to the location of Toyoi Betang house and the Hatapang Mujai. The opposite is seen in the marketing aspect where the developments of a location as object that can improve the regional economy are still not much done. The development of marketing activities is more visible in the location of Batu Mahasur waterfall because the management has collaborated with the private sector.

The classification of the five objects in the table is based on the competitiveness of the dominant attributes of each aspect and object. Among the five objects, Bawi Kemeloh and the Batu Mahasur waterfall are considered to have established competitiveness even though they cannot be said to be perfect. Both objects are superior in terms of attractiveness/appeal, access and proximity. Especially in the Batu Mahasur waterfall, excellence is also found in the

<table>
<thead>
<tr>
<th>Access</th>
<th>No</th>
<th>No</th>
<th>No</th>
<th>No</th>
<th>Yes</th>
<th>Balanced Competitiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appeal</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable Competitiveness</td>
</tr>
<tr>
<td>Proximity</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Balanced Competitiveness</td>
</tr>
<tr>
<td>Diversity</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Temporary Competitiveness</td>
</tr>
<tr>
<td>Resources</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Temporary Competitiveness</td>
</tr>
<tr>
<td>Marketing</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Balanced Competitiveness</td>
</tr>
</tbody>
</table>

Source: Primary Data through Field Observations and Interviews
marketing dimension. The object of Toyoi Betang house has a low competitiveness because it only relies on aspect of appeal. It is because to go to the location one must adjust to natural factors caused by road condition that is not conducive. Besides, the distance is an obstacle because it takes a considerable time and it requires patience because there is often a queue passing certain damaged road points. In the Batu Suli object, the competitiveness is temporary because the aspects of access, proximity and diversity still have the potential to be developed. Furthermore, the Hatapang Mujai site creates balanced competitiveness because there is still a lot of room to develop its potential, especially in access and marketing.

Object Competitiveness Related to Heritage

In heritage object, there are four objects that become the focus of research, namely the Tiwah ceremony, the Pantan Cut tradition, marriage customs and dances. The description of competitiveness in various dimensions in each object can be seen in table 3.

Table 3 Competitiveness in Heritage Object Based on VRINE criteria

<table>
<thead>
<tr>
<th>Smith Critical Potential of</th>
<th>V</th>
<th>R</th>
<th>I</th>
<th>N</th>
<th>E</th>
<th>Implication</th>
<th>Competitiveness Attribute</th>
<th>Competitive Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tradition (heritage)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Tiwah rituals</td>
<td>Museum</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable Competitiveness</td>
<td>Sustainable Competitiveness</td>
</tr>
<tr>
<td></td>
<td>Ceremonial</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable Competitiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experience</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable Competitiveness</td>
<td></td>
</tr>
<tr>
<td>2 Potong Pantan ceremony</td>
<td>Museum</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No Competitiveness</td>
<td>Sustainable Competitiveness</td>
</tr>
<tr>
<td></td>
<td>Ceremonial</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable Competitiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experience</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable Competitiveness</td>
<td></td>
</tr>
<tr>
<td>3 Marriage custom</td>
<td>Museum</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No Competitiveness</td>
<td>Sustainable Competitiveness</td>
</tr>
<tr>
<td></td>
<td>Ceremonial</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable Competitiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experience</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable Competitiveness</td>
<td></td>
</tr>
<tr>
<td>4 Traditional dance</td>
<td>Museum</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No Competitiveness</td>
<td>Sustainable Competitiveness</td>
</tr>
<tr>
<td></td>
<td>Ceremonial</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable Competitiveness</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Experience</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable Competitiveness</td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary Data through Field Observations and Interviews

In heritage object, there are three aspects, namely museums, ritual ceremonies and experiences that are assessed based on VRINE criteria. In general, the aspects of ritual ceremonies and experiences of each object have sustainable competitiveness i.e. nature of valuable, rare, difficult to imitate, irreplaceable/non-substitutable and exploitable. The museum
aspect is the part that does not have competitiveness on each object. Especially the object of Tiwah's party, which the museum aspect is categorized as having sustainable competitiveness because the track record of Tiwah ceremony can be seen in Sandung or the place where the bones are stored so that although there is generally no museum but its function can be likened to a museum.

Heritage in the form of traditions is the most prominent in Dayak community because they are still maintained up to now. Almost all inheritances that are being highlighted have sustainable competitiveness but one important aspect that is still lacking is the existence of museum. The museum in this case is in a form of good documentation so that all carried out traditions can be seen at any time. Especially the Tiwah ceremony which Sandung is made but the process is not well illustrated without a museum. Likewise, the tradition of Potong Pantan, customary marriages and dances can only be enjoyed when those events take place. This is in line with the statement of Yansiterson as the secretary of Dayak Custom Council (DAD):

"We have a lot of cultural heritage such as Potong Pantan and other traditions. There are many kinds of Pantan and they are used to adjust who the guests will come. But all this time, Pantan tradition has not been well exploited and documented despite the existence of extraordinary wealth of our culture"

Although the absence of museums is still a factor that reduces the level of competitiveness in heritage object, in general the dimension of ceremonies and experience become strong capital competitiveness of indigenous people so that both aspects make objects of Tiwah ceremony, Pantan Cut tradition, marriage customs and dances have sustainable competitiveness.

**Object Competitiveness Related to History**

Object of history involves four aspects in the form of values in a good story and makes it competitive, namely values in making decisions, breaking down conflicts, modern appearance and marginal people. A description of the competitiveness of various aspects of the object of Tetek Tatum can be seen in table 4.

**Table 4 Competitiveness of History Object Based on VRINE Criteria**

<table>
<thead>
<tr>
<th>Smith Critical Potential of History</th>
<th>V</th>
<th>R</th>
<th>I</th>
<th>N</th>
<th>E</th>
<th>Implication Competitiveness</th>
<th>Competitiveness Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>Rarity</td>
<td>Inimitable</td>
<td>Non-Substitutable</td>
<td>Exploitability</td>
<td>Competitiveness Attribute</td>
<td>Sustainable Competitiveness</td>
<td></td>
</tr>
<tr>
<td>Decision maker</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable Competitiveness</td>
<td></td>
</tr>
<tr>
<td>Conflict resolution</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable Competitiveness</td>
<td></td>
</tr>
<tr>
<td>Modern showcase</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable Competitiveness</td>
<td></td>
</tr>
<tr>
<td>Marginal people</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Sustainable Competitiveness</td>
<td></td>
</tr>
</tbody>
</table>

Source: Primary Data through Field Observations and Interviews

The story of Tetek Tatum or sad story tale actually tells the origin of the Dayaks in Borneo. One that stands out in this story is the heroism of Tambun and Bungai who were cousins but inseparable. The story of Tambun and Bungai is full of virtues in making decisions, overcoming
conflicts and helping people who are threatened. This story inspires people from time to time and
is enshrined both in the form of monuments and street names and locations.

The sad story tale which tells the story of heroism of Tambun and Bungai continues to be
handed down from generation to generation. At the end of the story, Tambun and Bungai spent
their old age in the village of Tumbang Pejange which is located in the Tewah sub-district of
Gunung Mas district so as to commemorate them; a monument called Tambun Bungai was
made. Story values attract outsiders according to Smith (1996) that contain values teaching us
about decision making, solving conflicts and about marginalized people as important elements in
the story that makes it to have a sustainable competitiveness.

Object Competitiveness Related to Handicraft

There are two handicraft objects that are related to indigenous Dayak people, namely wooden
handicrafts and rattan handicrafts. There are three aspects in each object, namely the heritage of
handicraft, innovation and handicraft marketing. An overview of the competitiveness of various
aspects of each object can be seen in Table 5.

Table 5 Object Competitiveness of Handicrafts Based on VRINE Criteria

<table>
<thead>
<tr>
<th>Smith Critical Potential of Marketed Products (Handicraft)</th>
<th>V</th>
<th>R</th>
<th>I</th>
<th>N</th>
<th>E</th>
<th>Implication</th>
<th>Competitiveness Category</th>
<th>Dominant Competitiveness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value</td>
<td>Rarity</td>
<td>Inimitable</td>
<td>Non-Substitutability</td>
<td>Exploitability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Handicraft</td>
<td>Heritage</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Temporary Competitiveness</td>
<td></td>
</tr>
<tr>
<td>Innovation</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Temporary Competitiveness</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Handicraft</td>
<td>Marketing</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Balanced Competitiveness</td>
<td></td>
</tr>
<tr>
<td>Handicraft</td>
<td>Made of Wood</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Handicraft</td>
<td>Made of Rattan</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Handicraft</td>
<td>Heritage</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Temporary Competitiveness</td>
<td></td>
</tr>
<tr>
<td>Innovation</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Marketing</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>Source: Primary Data through Field Observations and Interviews</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The legacy of handicrafts made of wood and rattan is considered valuable, rare and difficult to
imitate but there are differences in them. The legacy of handicrafts from wood is exploited and
can still be replaced with other products while handicrafts from rattan cannot be replaced with
other products but are still rarely exploited. In the dimension of innovation, the value and
exploitation of wooden handicrafts are beginning to be seen but the opposite is true for rattan
handicrafts. Likewise, marketing aspects, especially exploitation, are beginning to be seen in
wooden handicrafts, whereas in general there is no marketing activity that is valuable, rare,
difficult to replicate and irreplaceable in both products.

Based on the classification, competitiveness in wooden handicrafts is temporary in nature, but
rattan handicrafts are not competitive. This difference occurs because rattan handicrafts are
difficult to develop due to raw material constraints.

Typology of Competitiveness of Various Resources and Their Characteristics
Each type of competitiveness that is formed is the actual condition of various objects that describe the reliability of resources in indigenous people. In Figure 3, the inverted pyramid shape explains that the ideal condition of a resource occurs when there are many variables and superior attributes in each aspect of various objects. Seeing upward shows that superior resources in an object are more varied and many and they are in ideal position while the type of resources that are not competitive characterized by a lack of variables and attributes of superior resources.

4. CONCLUSION, LIMITATION AND FUTURE RESEARCH

Various resources that exist in indigenous people at the potential tourism sector, both tangible and intangible resources can be mapped out based on resources typology. Tangible and intangible resources are reflected in each dimension in habitat, heritage, history and handicraft. All of them are formed through the interaction of various resources in the form of assets and capabilities that exist in the community. Sustainable competitiveness shows the wealth of variables and attributes of superior resources in ideal condition. Temporary competitiveness shows the wealth of variables and attributes of superior resources that lead to ideal condition. Balanced competitiveness indicates that there are resources with superior characteristics. Competitive resources show poor competitiveness.

The existence of resources in indigenous people shows that all of those resources do not necessarily have competitiveness, thus by referring to Burney's (1991) resources research the results of this study show the map of various competitiveness resources in indigenous people and confirm the criteria of competitive resources proposed by Burney (1991) and Carpenter and Sanders (2009).

This study does not bring up various variables and attributes of the competitiveness creators found in the field so that further research can be carried out on various objects in indigenous
people at different places which certainly those objects have different resource characteristics. Further research can also be done to explore further various factors that create resources with various types of competitiveness characteristics.

REFERENCES


The Influence of Burnout, Counterproductive Work Behavior, Job Involvement, and Organizational Identification on Work Performance: Analysis on Online Motorcycle Taxi Drivers

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University of Indonesia

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Abstract

By surveying 261 drivers of online motorcycle taxis operated in Indonesia, this study presents a model that examines the relationship between work performance and several positive and negative work factors—emotional exhaustion, counterproductive work behaviour, job involvement, and organisational identification—to determine which factors influence work performance more strongly. Structural Equation Modelling (SEM) is used. The findings show that job involvement mediated by organisational identification has a positive significant effect on performance, while emotional exhaustion, mediated by counterproductive work behaviour, has negative significant effect on performance. The research also shows that the positive factors, including job involvement and organisational identification, influence performance more strongly. Finally, this study contributes to the understanding that independent workers in partnership arrangements with companies, like online motorcycle taxi drivers, can encounter paradox in their work behaviour.

Keywords: work performance, emotional exhaustion, counterproductive work behaviour, job involvement, organisational identification, online transportation, motorcycle taxi
1. INTRODUCTION

Zacher (2009) defines work performance as behaviour that is related to the purpose or unit of a company where a person works. From this definition, it can be said that work performance can be observed and measured at the individual level. Mathis and Jackson (2002) further explain that individual performance is the behaviour of an individual in doing his work, reflecting the quantity and quality of success in carrying out work tasks (Schermherhorn, Hunt and Osborn, 1997). This is related to an individual’s ability to achieve set goals (Donnelly, Gibson, and Ivancevich, 2003). Individual performance is very important for company growth and company performance (Almathroosi, Singh, and Farouk, 2016; Judge et al., 2001; Vosloban, 2012).

Specifically, individual performance can be divided into several types, including work performance, task performance, contextual performance, and adaptive performance (Koopmans, Bermaard, Hildebrandt, van Buuren, van der Beek, and de Vet, 2011). Work performance is a construct that indicates how well an individual operates at work: it includes factors such as an individual’s level of initiative and his or her expertise in solving problems (Schepers, 2011). Work performance is an important variable in assessing individual work behaviour, because it affects a company's performance (Hoffman, Blair, Meriac, and Woehr, 2007). This study focuses on work performance in terms of task performance, contextual performance, and adaptive performance (Motowildo, Borman, and Schmit, 1997) and considers that performance is directly related to financial well-being (Joo, 1998; Joo and Garman, 1998; CIPD Survey, 2017).

Based on a number of previous studies, there are several factors that can affect work performance, in both negative and positive ways. Emotional exhaustion (Maslach and Leiter, 2016), and counterproductive work behaviour (CWB) (Fox and Specter, 2005) are factors that can have a negative influence on work performance. When these factors intensify, work performance is reduced. Maslach, Schaufeli, and Leiter (2001) further state that a high level of emotional fatigue and depletion cause a decrease in work performance.

Besides emotional exhaustion and CWB, there are other negative factors that can affect work performance, such as job stress (William, Conrad, Scheckler, Pathman, Linzer, McMurray, Gerrity, and Schwartz, 2001) and work/life conflict (Beauregard and Henry, 2009). This study however focuses only on emotional exhaustion and CWB because job stress can be represented by emotional exhaustion (according to Maslach, Schaufeli, and Leiter, 2001) and work/life conflict can be considered part of CWB (Thompson, Beauvais, and Lyness, 1999).

Emotional exhaustion has a close relationship with CWB. This is supported by Smoktunowicz, Baka, Cieslak, Nichols, Benight, and Luszczynska (2015), who state that workers with high levels of emotional exhaustion will tend to commit CWB. Research on the relationship between emotional exhaustion and CWB has not yet received much research attention, especially related to work performance. Previous research that linked CWB and work performance was limited to theoretical concepts; for example, Viswesvaran and Ones (2000) pointed out that CWB is an element of work performance. Furthermore, most prior research on CWB links it with its opposite variable, namely organisational citizenship behaviour (OCB) (Dalal, 2005; Fox and Spector, 2010; Miles, Borman, and Spector, 2002; Spector and Fox, 2002;
Spector, Bauer, and Fox, 2010), and emotional exhaustion was not part of such research. Therefore, it is important to study emotional exhaustion and CWB and their effect on work performance to study focus negative behaviours that not only affect a worker’s performance, but also can harm a company’s ability to remain viable in the market.

This research will not ignore the positive factors that influence work performance. Prior research, such as Stansfeld and Candy (2006), Zheng, Yang, and McLean (2010), and Schaufeli, Bakker, and Salanova (2006), has looked at the effect of a positive work environment, organisational culture, and work engagement on work performance. This study, however, focuses on organisational identification and job involvement (Brown, 1996; Callea, Urbini, and Chirumbolo, 2016; Preffer, 1994; Rottenberry and Moberg, 2007). Organisational identification, in particular, has received little attention as a research topic to date (Riketta, 2005) and this factor is as important as work environment, organisational culture, and work engagement, because it reflects the interrelationship of workers and companies in affecting work performance (Gautam, Dick, and Wagner, 2004). When a worker positively identifies with the company, it benefits his or her work performance and the organisational performance (Mathieu and Zajac, 1990; Meyer and Allen, 1997; Riketta, 2002). Organisational identification is closely related to job involvement (March and Simon, 1975), because when a worker is increasingly involved in a job, he or she identifies more with the company (Himmetoglu, 1978).

Because work performance can have both negative and positive sides, it presents a paradox. In an organisational context, the paradox reflects contradictory elements that are interrelated and exists simultaneously from time to time (Cunha and Putnam, 2017; Smith and Lewis, 2011). Cameron and Quinn (in Lewis, 2000, p. 760) stated, “by exploring paradox, researchers might move beyond oversimplified and polarized notions to recognise complexity, diversity, and ambiguity of organisational life” and “paradox also offers a powerful framework that can aid understandings of divergent perspective and disruptive experiences” (Lewis, 2000, p. 760). Research about paradox involving workers is limited and rarely discussed. This may be due to the fact that discussing paradox brings confusion because it compares two contradictory sides (Chow, 1998). A study acknowledging this paradox and examining contradictory sides will therefore contribute to a comprehensive understanding of the dynamics of work performance.

This research was conducted by surveying motorcycle taxi drivers who connect with customers through online or mobile apps. Today, online motorcycle taxis are widely used by people in Indonesia. In addition to guaranteeing cheap rates, employing an online motorcycle taxi can help save travel time, especially in traffic jams. Before the innovation of online motorcycle taxi applications emerged, prospective passengers had to look for roadside motorbikes and negotiate prices before traveling. Today, prospective passengers only need to use a smartphone application to place an order with fixed rates that depend on the distance to be travelled. The farther the distance and the more congested the traffic conditions, the higher the price shown on the application. The working relationship between online motorcycle taxi drivers and companies is not a conventional employee relationship, but rather, it is a partnership relationship. As a consequence, the income earned is not a fixed income. Drivers that carry more
passengers and complete more rides receive more income and bonuses. The compensation of online motorcycle taxi drivers clearly reflects their actual work performance; it is directly related to how well individual drivers perform at work, demonstrated by their average income per day.

This study, therefore, examines a model relating CWB, emotional exhaustion, job involvement, and organisational identification to work performance in the context of online motorcycle taxi drivers. A number of previous studies; such as Wright and Bonett (1997), Stajkovic and Luthans (2001), Bond and Bunce (2003), and Kessler et al. (2006); have discussed work performance, however the respondents were office employees with fixed incomes. This study, in contrast, is aimed at online motorcycle taxi drivers who do not have fixed income that have a flexible partnership arrangement with the online company. The ups and downs of work performance are directly presented in this context. In addition, these types of workers should be able to reveal the paradox of job performance as described above. Pressure to obtain more passengers can cause drivers to be more involved in their jobs, but can also make them burned out. As explained above, job involvement and emotional exhaustion take different and opposite paths to work performance and those paths are paradoxical in nature. This study looks at these paradoxical paths in the context of online motorcycle taxi drivers, going beyond previous studies that mostly discussed either negative or positive elements of work performance of corporate employees.

*Emotional Exhaustion and CWB*

Emotional exhaustion is a form of job stress (Maslach, 2001); it is a described as a mental state in which an individual feels tired physically, mentally, and especially emotionally as a result of increasing work intensity. Maslach, Schaufeli, and Leiter (2001), suggested that emotional exhaustion has a negative impact on individuals and companies. Emotional exhaustion can also lead to unprofessional behaviour and attitudes (Dyrbye et al, 2010). According to Fox and Spector (2005), emotional exhaustion is associated with CWB. This explanation, leads to the first hypothesis:

H1: Emotional exhaustion positively affects CWB

*Job Involvement and Organisational Identification*

Job involvement can be defined as the extent to which individuals psychologically make work part of themselves. Individuals with a high level of job involvement feel that their work is very important and closely related to their identity (Kanungo, 1982). Hall, Schneider, and Nygren (1970) demonstrated that job involvement influences organisational identification. Workers with high level of job involvement are likely motivated to identify with the company (Efraty and Wolfe, 1988). Accordingly, Efraty et al. (1991, p. 60) argue, "Without the worker’s emotional involvement in his/her job, the worker may not incorporate the company goals and outcomes into
his/her self-concept, hence organisational identification.” From this explanation, the following hypothesis is proposed:

H2: Job involvement positively affects organisational identification

CWB and Work Performance

CWB is a negative behaviour that can be detrimental to a company and its shareholders. A characteristic of CWB is that the behaviour is intentional (Fox and Spector, 2005) and it can be conceptualised as a negative factor of work performance (Kelloway, Loughlin, Barling, dan Nault, 2002; Spector, and Fox, 2002; Viswesvaran and Ones, 2000). From this discussion, the authors suggest:

H3: CWB negatively affects work performance

Organisational Identification and Work Performance

Organisational identification is a strong concept because it can reshape the psychological condition of organisational members and improve work performance (Blader, Patil, and Packer, 2017). Organisational identification indicates “who I am” in a company (Pratt, 1998). According to Mael and Ashforth (1992), organisational identification is a very important factor because it can determine the welfare of workers and companies. Workers who consider themselves as part of the company’s identity are loyal to the company, have better performance, and have higher motivation (Bartel, 2001). From this explanation above, the final hypothesis can be postulated as follows:

H4: Organisational identification positively affects work performance

The above hypotheses are assembled in a research model as seen in Figure 1.

![Figure 1. Research Model](image-url)
2. RESEARCH METHOD

Sample

From a total of 270 questionnaires distributed to online motorcycle taxi drivers, 261 questionnaires were returned to the authors. The response rate of this study is 96.7%. Of the respondents 96.2% of respondents are male, 69% are married, 77.4% have high school education levels, and most (66.3%) are aged 21–40 years old. To accommodate the language of the respondents, the contents of the questionnaire were presented in Bahasa. To minimise loss in translation and interpretation, the authors conducted a back translation, converting a Bahasa version back to English to see any differences, and conducted a reading test with five online motorcycle taxi drivers to confirm that the meaning of each item in the questionnaire was understood.

Measures

In order to test the hypotheses presented in Figure 1, a questionnaire was used to measure the responses of online motorcycle taxi drivers. The questionnaire contains a number of statements adapted from previous studies. To measure the emotional exhaustion variable, the authors used nine emotional exhaustion items developed by Maslach and Jackson (1986). Examples of these items are (1) I feel emotionally drained from my work, (2) I feel used at the end of the workday, and (3) I feel fatigued when I get up to face another day on the job. CWB is measured using the Counterproductive Work Behaviour Checklist (CWB-C) proposed by Spector, Bauer, and Fox (2010), which consists of 11 items. Examples of these items are: (1) I have purposely wasted employer materials/supplies, (2) I have told people outside the job what places I work for, and (3) I have complained about significant things at work. Job involvement is measured using an instrument developed by Kanungo (1982), consisting of eight items, for example: (1) most of my personal goals are job oriented, (2) I consider my job to be very central to my existence, and (3) most of my interests are centred around my job. Organisational identification variable were analysed using six items developed by Jones and Elisabeth (2011), for example: (1) when someone criticises my company, it feels like a personal insult, (2) the company is my success, and (3) when I talk about this company, I usually say “we” rather “they.” Finally, work performance is measured by the amount of average income earned by a driver per day. Each question uses a five point Likert scale ranging from strongly disagree (1) to strongly agree (5).

3. RESULTS

Table 1 shows the mean, standard deviation, and bivariate correlation of the variables measured in this study. This table demonstrates that the work performance of online motorcycle taxi drivers is at a low level (1.97 of 5). Emotional exhaustion and CWB levels also tend to be
low (2.39 and 2.02 of 5), while job involvement and organisational identification are at a moderate level (3.47 and 3.65 of 5). The work performance of online motorcycle taxi drivers has a positive and significant correlation to organisational identification, but has negative and insignificant correlation to CWB. Emotional exhaustion has a positive and significant correlation to CWB; likewise with job involvement to organisational identification. In short, among all correlations presented in Table 1, only work performance and CWB are not significantly correlated to one another.

Table 1. Mean, Standard Deviation, and Correlation

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>WP</td>
<td>1.97</td>
<td>0.83</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BO</td>
<td>2.39</td>
<td>0.88</td>
<td>-0.097</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CWB</td>
<td>2.02</td>
<td>0.82</td>
<td>-0.107</td>
<td>0.378**</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>JI</td>
<td>3.47</td>
<td>0.90</td>
<td>0.141*</td>
<td>-0.542**</td>
<td>-0.374**</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>OI</td>
<td>3.65</td>
<td>0.88</td>
<td>0.083</td>
<td>-0.498**</td>
<td>-0.334**</td>
<td>0.452**</td>
<td>-</td>
</tr>
</tbody>
</table>

**p < 0.01

Table 2 shows construct reliability and variance extracted from each scale that is applied to the research model. Construct reliability scores are all above 0.7 and variance extracted scores are all above 0.5. This indicates that the measurements used in this research are reliable and valid.

Table 2. Construct Reliability and Variance Extracted

<table>
<thead>
<tr>
<th>Variables</th>
<th>Construct Reliability</th>
<th>Variance Extracted</th>
</tr>
</thead>
<tbody>
<tr>
<td>BO</td>
<td>0.89</td>
<td>0.55</td>
</tr>
<tr>
<td>CWB</td>
<td>0.90</td>
<td>0.56</td>
</tr>
<tr>
<td>JI</td>
<td>0.92</td>
<td>0.59</td>
</tr>
<tr>
<td>OI</td>
<td>0.76</td>
<td>0.53</td>
</tr>
</tbody>
</table>

The model shown in Figure 1 was examined using Structural Equation Modelling (SEM) to determine the goodness of fit indices, which consists of RMSEA (root mean square error of approximation), NFI (normed fit index), NNFI (non-normed fit index), CFI (comparative fit index), IFI (incremental fit index), RFI (relative fit index), and GFI (goodness of fit index) (see Table 3). The model is considered a good fit if it has a RMSEA value less than 0.08, and NFI, NNFI, CFI, IFI, RFI, and GFI have a value greater than 0.90. Referring to Table 3, it can be concluded that the research model fits the data collected.

Table 3. Goodness of Fit Indices

<table>
<thead>
<tr>
<th>Model Fit Indices</th>
<th>Acceptable Value</th>
<th>Actual Value</th>
<th>Fitness</th>
</tr>
</thead>
</table>


To actually test whether or not each hypothesis is supported, the authors look at the t-value, as presented in Table 4. This table shows that emotional exhaustion has a positive and significant influence on CWB (t-value = 21.31). Therefore, H1 is supported. This means the higher level of emotional exhaustion of online motorcycle taxi drivers, the higher the CWB. As previously explained, workers who have a high level of emotional exhaustion tend to demonstrate unprofessional behaviour. However, if the emotional exhaustion level is low, the possibility of a worker conducting unprofessional behaviour will decrease. This is in line with Banks et al. (2012) who state that CWB frequency will increase if the level of emotional exhaustion experienced by a worker is high.

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Latent Variable Path</th>
<th>Estimation</th>
<th>t-value</th>
<th>Sign. T-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>BO → CWB</td>
<td>0.46</td>
<td>21.55</td>
<td>t &gt; 1.96</td>
</tr>
<tr>
<td>H2</td>
<td>JI → OID</td>
<td>0.65</td>
<td>25.77</td>
<td>t &gt; 1.96</td>
</tr>
<tr>
<td>H3</td>
<td>CWB → WP</td>
<td>-0.02</td>
<td>t &gt; 1.96</td>
<td></td>
</tr>
<tr>
<td>H4</td>
<td>OID → WP</td>
<td>0.20</td>
<td>2.26</td>
<td>t &gt; 1.96</td>
</tr>
</tbody>
</table>

In performing work duties, a motorcycle taxi driver can experience emotional exhaustion, especially during peak hours (usually in the morning and afternoon). An emotionally exhausted driver can commit such wrongdoings as turning off the application, or asking a passenger to cancel an order. A driver can also experience emotional exhaustion when he or she does not get orders, especially during late morning and early afternoon hours. Because a driver’s income is entirely variable, there could be an urge from the driver to create a fake order to get the money. The driver will not get money from the fake passenger, but will get a daily bonus from the bogus trip.

Meanwhile, CWB has a negative but not significant influence on work performance (t-value = −0.02); therefore, H3 is not supported. This indicates that CWB demonstrated by online motorcycle taxi drivers has practically no effect on their work performance. This is not in line with the study of Koopmans et al. (2012), which states that CWB is one of the factors that can negatively affect work performance. The finding in this study reflects the fact that wrongdoings in this situation can both increase and decrease drivers’ work performance. As mentioned earlier, wrongdoings such as fake orders can increase work performance, but turning off the application or asking passengers to cancel orders decrease it. Poor behaviour increasing work performance is
actually consistent with Vardi and Wiener’s (2001) Type S employees, in which CWB benefits the individuals themselves.

Table 4 also shows that H2 is supported because it has a t-value of 26.28. This means job involvement has a positive and significant influence on organisational identification. This is in line with the research of Riketta (2005), which states that job involvement has a positive relationship with organisational identification; that is, when the level of job involvement of a worker is high, the worker will feel that he or she is part of the identity of the company. When online motorcycle taxi drivers feel high involvement with their work they feel that the company is part of their identity and the success of the company is their success.

Finally, Table 4 shows that H4 is supported because it has a t-value of 2.28. This means organisational identification has a positive and significant influence on work performance. The results of this study are in line with the research conducted by Blader, Patil, and Packer (2015), in which a worker with a high level of identification has better work performance. When online motorcycle taxi drivers view that the success of the company is their success, they will be more active in finding passengers, because they do not want the company to fail, making them lose their identity.

4. DISCUSSIONS

The results support H1, H2, and H4, but not H3. These results indicate a similarity in the nature of independent business partners and typical corporate employees. Workers’ involvement in their job leads to strong identification with the organisation and eventually, to high work performance. There is also similarity between independent and corporate workers in the affects of emotional exhaustion on CWB. There is a difference, however, in the effect of CWB on work performance; in the case of business partners, the effect is not significant. This difference enriches our understanding on the distinct nature of business partners, who have more latitude to commit wrongdoings, regardless of personal benefit or personal loss. Corporate employees, however, do not have such latitude, because their wrongdoings will be punished leading to poor work performance. Meanwhile, business partners avoid punishment for wrongdoings and hence, may still have good work performance, demonstrated by compensation.

The above findings also demonstrate the partial existence of paradox. The positive side is supported (H2 and H4), yet the negative side is only partly supported (only H1 is supported). Consequently, this study cannot provide a balanced framework of the dynamics of work performance. The authors therefore suggest that other variables from the negative side, such as role stressors, be employed in future research so this framework can be justified, especially in the context of a business partnership scheme of employment.

Another limitation is derived from the unequal demographic nature of the respondents in the study. Future research thus warrants more equal respondents in term of gender, educational background, marital status, and age that can come from looking at other businesses, such as insurance agencies and real estate brokerages, which have similar employment schemes as online
motorcycle taxis: insurance agents and real estate brokers are business partners with insurance and real estate companies, respectively.

In addition, the respondents of this study were asked to self-report their behaviour regarding emotional exhaustion, CWB, job involvement, and organisational identification, as well as to self-report their work performance. Consequently, the data collected may be susceptible to common method variance that could bias the observed influences. Future research is therefore encouraged to employ peer reporting for factors such as job involvement, and to gather actual data for CWB and work performance. In other words, future research should utilise multi-source data to improve the objectivity of the study.

Lastly, this study is a cross-sectional study in which a causal relationship could not be inferred. Future research in a longitudinal manner would be beneficial where, for instance, data for emotional exhaustion and job involvement are collected first, followed by data for CWB and organisational identification, and finally data for work performance.

REFERENCES


Impact of Price, Promotion and Brand Image on Purchase Intentions in the Choice of a Low Cost Airline

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Abstract

The purchase intentions are normally explained by the theory of planned behavior which consists of three explanatory variables, which are the attitude, the subjective norms and the perceived behavioral control. The impression about the purchase intentions in context of buying tickets of airlines is that the brand image of the airline plays an important role for the premium airlines, which seems to affect the attitude of the customers. However, in case of the low cost airlines the impression is that customers seek price and promotion, for example in case of AirAsia Indonesia, Lion Air or Citilink in Indonesia. Hence, this study has tried to explore the impact of the brand image, the price and the promotion on the purchase intention of customers in context of the choice of a low cost airline. A sample of about 400 customers was selected based on random online sampling from among the AirAsia Indonesia customers. The responses were analyzed using simple regression method. The results indicated that though price is a significant predictive variable in explaining purchase intentions but the impact of price is negligible if considered in the overall scheme of determinants of purchase intentions.

Keywords: Customer Purchase Intentions; Low Cost Airlines; Price; Promotion; Brand Image
1. INTRODUCTION

Airline Industry

Since the first heavier than air and powered flight was flown on December 17, 1903 by Wright brothers – Orville and Wilbur, there has been an exponential growth in use of fixed wing flights as a mode of travel. The air travel has emerged as an important means of transportation for people and products and has become a major industry, relied upon by millions not only for transportation but also as a way of making a living. According to Air Transport Action Group (ATAG), by the year 2017 for which complete data is available, the airline industry contributed $704.4 billion to the global GDP and, if the indirect, induced and tourism related revenues are also considered, the aviation industry generated $2.7 trillion or 5% of the global GDP contributing to 65.5 million jobs in direct, indirect, induced and tourism-catalytic sectors (ATAG, 2018). The industry carried 4.1 billion passengers on 41.9 million flights (an average of 98 passengers per flight) on 45,091 routes in 2017 (ATAG, 2018).

The purpose of the very first fixed-wing commercial flight scheduled on January 1, 1914 between the cities of St. Petersburg and Tampa in Florida, USA was to reduce a 20 hours car journey to 20 minutes’ flight (Sharp, 2018). Therefore, it is easy to understand that aviation has been growing at a tremendous rate in the developing countries because the distances are enormous. Among the developing countries, India was the first country to witness commercial aviation. Tata Airlines was founded as early as 1932 by India's leading industrialist, J.R.D. Tata, who himself flew a single engine aircraft carrying air mail on October 15, 1932 from Karachi to Bombay (Seth & Bhat, 2003). It was later renamed as Air India after Indian government acquired it.

Air Travel in Indonesia

The benefits of air travel can be felt more in a large but scattered country like Indonesia comprising of 17,504 islands around equator (Lamoureux, 2003). The distance as the bird flies from the western most town Sabang in Aceh to the eastern most town of Merauke in Papua is 5,249 kilometers (https://www.distance.to/Sabang/Merauke). Even north to south distance is 1,760 kilometres. Indonesia has total land area of 1,904,569 square kilometers (Frederick & Worden, 2011). Air travel is the only viable alternative transportation to sea travel, which can make such distances and time taken shorter in a country like Indonesia and boost the economy.

According to a travel portal, passengers prefer air travel because it offers speed, comforts, and time-savings (pegipegi, 2014). Due to the growth of the middle-class and the advent of low cost carrier (LCC) airlines in the recent decade, air travel in Indonesia is growing at a tremendous speed. The number of air passengers have grown 270% from 29.8 million in 2008 to 110.3 million in 2017 (World Bank, 2019). According to Directorate General of Civil Aviation (DGCA), Ministry of Transportation Republic of Indonesia, there are 15 commercial scheduled airlines and 296 airports in Indonesia (DGCA Indonesia, 2019). Indonesia, actually, may need more airports if it needs to handle future air traffic as mentioned by Tony Tyler, IATA’s Director General and CEO, in his keynote address to the IATA Aviation Day in Jakarta, “Indonesia needs an aviation master plan based on global standards and developed in partnership by aviation stakeholders including the government.” (IATA, 2015).
The Table 1, below, shows the growth of flight traffic in Indonesia. After the Asian crisis of 1998-99, the number of average yearly passengers is doubling every five year period in the last 20 years from an average 25 million passengers/year during 2003-7 to an average 53 million passenger/year during 2008-12 (World Bank, 2019). The number of passengers is predicted to reach 140 million in 2018 (Straits Times, 2017).

<table>
<thead>
<tr>
<th>Five Year Period</th>
<th>Passengers (millions)</th>
<th>Growth %</th>
<th>Average/pa (millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1973-1977</td>
<td>13.42</td>
<td></td>
<td>2.68</td>
</tr>
<tr>
<td>1978-1982</td>
<td>26.27</td>
<td>95.8%</td>
<td>5.26</td>
</tr>
<tr>
<td>1983-1987</td>
<td>33.21</td>
<td>26.4%</td>
<td>6.64</td>
</tr>
<tr>
<td>1988-1992</td>
<td>48.61</td>
<td>46.3%</td>
<td>9.72</td>
</tr>
<tr>
<td>1993-1997</td>
<td>71.70</td>
<td>47.5%</td>
<td>14.34</td>
</tr>
<tr>
<td>1998-2002</td>
<td>58.08</td>
<td>-19.0%</td>
<td>11.62</td>
</tr>
<tr>
<td>2003-2007</td>
<td>126.11</td>
<td>117.1%</td>
<td>25.22</td>
</tr>
<tr>
<td>2008-2012</td>
<td>266.89</td>
<td>111.6%</td>
<td>53.38</td>
</tr>
<tr>
<td>2013-2017</td>
<td>466.56</td>
<td>74.8%</td>
<td>93.31</td>
</tr>
</tbody>
</table>

Source: (World Bank, 2019)

To conclude, airline industry has become highly competitive in Indonesia due to growing number of passengers even though capital-intensive. Competition in the airline industry has become intense as a result of globalization (Cederholm, 2014).

**Low Cost Airlines in Indonesia**

Air Transport and Airport Research center (ATAR) in Germany prepared a report for Directorate-General for Energy and Transport in the European Commission on business model of airlines. ATAR concluded that airline business can be divided into three segments, which are full service network carriers (FSNC), low cost carriers (LCC) and other carriers (OC). The other carriers include holiday carriers, regional carriers, traditional freight carriers, integrators, and hybrid carriers (ATAR, 2008). The focus of this study is LCCs because low-cost carriers or budget airlines are gaining more attention from travelers in the tourist and airlines industries. The existence of LCC answers the needs of middle-class customer as an alternative transportation to travel inside the country or aboard, even with a limited budget.

LCC is a model of marketing strategy that was introduced by Southwest Airlines in USA in 1970 (Evangelho, Huse, & Linhares, 2005). LCC has some characteristics, which are the standardization of cabin and armada of the airplane, remove business class type, simplify ticketing process through the technology with e-ticket, operate on short-haul flight (point-to-point), simplify or remove mileage programs, use secondary airports aside from main airport to minimize airport service’s fee during the rush hour, and decrease or even remove certain services such as in-flight entertainment, food, blanket, among other things (Ursula, 2015). The LCC market segment in Indonesia has been growing every year inspiring causes domestic and international airlines to enter this market. Some airlines enter in LCC segment e.g. Garuda Indonesia floated a subsidiary Citilink in 2009 to compete in LCC market and reach middle-low
target market (Citilink, n.d.). The top three airline brands in LCC segment are Lion Air, Citilink, and AirAsia Indonesia. AirAsia Indonesia is categorized as pure low cost carrier whereas other two airlines are combination of carriers (Ursula, 2015).

**Low Cost Airlines constitute Top Brands in Indonesia**

Indonesia has its own marketing award called Top Brand Index (TBI). TBI is based on an annual survey conducted by Frontier Consulting Group in 15 major cities of Indonesia covering about 12,000 respondents (Frontier Consulting Group, n.d.). TBI is measured by using three parameters, which are top of mind brand awareness, last used brand, and future purchase intentions. Based on TBI, the top 4 brands, in Indonesian airline business, that share 85-90% of Indonesian mindshare have been Garuda, Lion Air, Citilink and AirAsia (Table 2). Except Garuda all belong to low cost airlines.

<table>
<thead>
<tr>
<th>Years</th>
<th>Garuda</th>
<th>Lion</th>
<th>AirAsia</th>
<th>Citilink</th>
<th>Sriwijaya</th>
<th>Batik</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>41.2</td>
<td>30.8</td>
<td>9.9</td>
<td>0.8</td>
<td>5.8</td>
<td></td>
</tr>
<tr>
<td>2014</td>
<td>39.6</td>
<td>32.3</td>
<td>10.8</td>
<td>2.7</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>2015</td>
<td>40.0</td>
<td>35.1</td>
<td>8.7</td>
<td>4.4</td>
<td>4.4</td>
<td></td>
</tr>
<tr>
<td>2016</td>
<td>41.0</td>
<td>30.5</td>
<td>7.7</td>
<td>8.9</td>
<td>3.2</td>
<td>3.2</td>
</tr>
<tr>
<td>2017</td>
<td>40.7</td>
<td>31.8</td>
<td>6.9</td>
<td>9.1</td>
<td>3</td>
<td>3.1</td>
</tr>
<tr>
<td>2018</td>
<td>40.5</td>
<td>27.2</td>
<td>6.0</td>
<td>9.8</td>
<td>5.1</td>
<td>3.1</td>
</tr>
</tbody>
</table>

Source: (Frontier Consulting Group, n.d.)

The basic fact that low cost airlines are dominating Top Brands awards is enough to realize that customer preferences are shifting. Air travel is increasingly regarded as a basic necessity by burgeoning middle class in the developing countries like Indonesia. This has inspired this research also because it is fascinating to understand what attracts customers to low cost airlines. Each airline has its unique advantage or superiority e.g. AirAsia Indonesia has a strong brand equity or uniqueness by being a part of AirAsia Bhd., which has already established itself as globally top low cost airline (Zhang, 2016). Skytrax conducts annual passenger satisfaction survey globally. Their latest 2017-18 survey, which had 20.36 million online eligible entries, praised AirAsia for being the best for the 10th successive year due to its responsive customer service, friendly cabin crew, and efficient operation (Skytrax, 2018).

**Case of AirAsia Indonesia**

AirAsia Indonesia was established on December 8, 2004 through a joint venture between AirAsia International (holding 49% shares) and Awair International run by PT. Fersindo Nusaperkasa (holding 51% shares), with hubs in Jakarta, Bandung, Bali, Surabaya and Medan. AirAsia Indonesia carried 5.2 million passengers in 2018 utilizing 82% capacity and using a fleet of 24 aircrafts (AirAsia, 2019). In spite of this the market share of AirAsia is not very high in Indonesia as seen in Table 3 below:
Table 3. Market Share of Major Airlines in Indonesia (in %)

<table>
<thead>
<tr>
<th>Years</th>
<th>Garuda</th>
<th>Lion</th>
<th>AirAsia</th>
<th>Citilink</th>
<th>Sriwijaya</th>
<th>Batik</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>22</td>
<td>47</td>
<td>4</td>
<td>7</td>
<td>11</td>
<td>1</td>
<td>7</td>
</tr>
<tr>
<td>2014</td>
<td>24</td>
<td>45</td>
<td>4</td>
<td>10</td>
<td>11</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>2015</td>
<td>26</td>
<td>39</td>
<td>3</td>
<td>12</td>
<td>11</td>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>2016</td>
<td>22</td>
<td>40</td>
<td>3</td>
<td>12</td>
<td>12</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>2017</td>
<td>20</td>
<td>40</td>
<td>2</td>
<td>13</td>
<td>13</td>
<td>10</td>
<td>2</td>
</tr>
</tbody>
</table>

Source: (Centre for Aviation, 2018)

It is strange that AirAsia Indonesia has not been able to gain substantial market share in Indonesia despite being one of the top brands in Indonesia and despite the fact that it is affiliated to the world’s best low cost airline. From the Table 2 and Table 3, it can be seen that AirAsia is one of the top brands in Indonesia but still market share was the lowest e.g. in 2017.

2. THEORETICAL ISSUES

The price of tickets is comparable to other low cost airlines. Promotions of AirAsia are much more attractive, prolific and widespread on social media compared to other low cost airlines. Brand image of AirAsia Indonesia is much better being affiliated to the world’s best LCC. Still the market share is low. Therefore, the focus of this research is to explore how the customer intentions to purchase tickets of low cost airlines are shaped in a middle income country like Indonesia with burgeoning middle class. What is the role of low price offers and extensive promotions? Does the brand image have any impact on customer intentions to choose an airline, especially the low cost airline? It is important to review literature on customer purchase intentions and theories explaining it before subjecting it to empirical research.

Customer Purchase Intentions

Before customer purchase products or services, they normally collect the product information either from the personal experience or from the external environment (Fishbein & Ajzen, 1975). Customers start the assessment and evaluation process when the amount of information reaches a certain level. Then, they make a purchase decision after the comparison and judgment. Thus, purchase intention is used as a proxy measurement of consumer behavior.

Purchase intention also means a subjective preference that consumers have towards a product, and it is proven it can be predict the consumer behavior. According to a previous research, purchase intention is considered as a crucial factor to know and predict the consumer behavior while marketing a brand (Durianto & Liana, 2004). It is also proven that purchase intention acts as an important factor influencing the actual final purchase and may lead to repeat buying in the future. It has been argued that purchase intention has two process. First, customers will collect any related information regarding to their desired brand. Then, after they have complete information and experienced of the products, they will start to evaluate it by using its characteristics. Therefore, if consumers feel convenient with the product, there will be a chance for them to purchase it again in the future (Pi, Liao, Liu, & Lee, 2011). In conclusion, most researchers agree that purchase intention is a good predictor of purchase decision.
The customer purchase intention can be influenced by several factors. It is important to find out which factors have influence on the customer purchase intentions in the context of AirAsia Indonesia. The customers’ choices are actually the purchase decisions. These decisions are normally influenced by the customers’ intention to purchase the product. Intention is depicted as the direct antecedent to purchase decision. Therefore, the variable of interest is the purchase intention and not the purchase decision (Van Tonder, 2003). The purchase intention can be influenced directly by the marketing strategies, whereas the purchase decision will be influenced by many other internal and external variables.

Theory of Planned Behavior

The researchers use the theory of planned behavior (TPB) to explain the intentions. Therefore, it is important to look at this theory to explain the purchase intention. The TPB explains that the intentions are influenced by attitude, subjective norms which can be interpreted as personal standards, and perceived behavior control (Ajzen, 1991). Before TPB, there was this Theory of Reasoned Action (Fishbein & Ajzen, 1975) which paved the path for TPB (Ajzen, 1991). The TPB has been used in many studies for examining the purchasing behavior. According to the Theory of Reasoned Action (TRA), intention of undertaking or not undertaking the behavior is the direct predecessor to the behavior. The TPB improved on TRA by including the explanation on the factors of intention, such as attitude, subjective norms and perceived behavioral control as seen in Figure 1.

![Figure 1. Theory of Planned Behavior (Ajzen, 1991)](image)

The TPB is applicable to the habits or regular behavior with some ethical component. For example, the researchers have used TPB to explain the behavior towards environment or recycling (Ramayah, Lee, & Lim, 2012). Therefore, perceived behavioral control or the third factor explaining intentions is not relevant in the present study, where purchase intention for buying an airline ticket is being considered. It is not a regular behavior and nor it is a behavior with ethical considerations.

The attitude and the subjective norms can be considered important for the purchase intention in the context of the present study. There is a relationship between brand image and the attitude and the subjective norms of the customers. Not only the brand image, but even the promotion strategies also affect the attitude of the customer. Advertisement is a major factor to increase
brand image on consumer, for that reason some companies use different kinds of advertisement stimuli to capture purchase intention.

Consumers who are influenced by advertisement shift their interests to the other brand which advertises the products (Tariq, Nawaz, Nawaz, & Butt, 2013). Moreover consumers who purchase the brand frequently resist switching to other brand. Consumers who are satisfied with the product will have a positive attitude towards the purchase intention. Because there is a relation between attitude and purchase intention if the consumers have a positive attitude towards the brand it will increase purchase intention and actual purchase (Jin & Yong, 2005).

The promotion can also effect the subjective norms which are basically long term believes and standards of the customer. These can be manipulated by continuous promotion. Promotion is an important instrument in creating awareness in the potential customers’ mind, in order to decide to buy a product. These kinds of customers build an emotional link with the advertisement of that brand (Latif & Abideen, 2011). Therefore it is evident that more than the attitude and subjective norms, the variable of the interest would be the promotion of the product.

The subjective norms or standards in the context of purchase e.g. purchase of AirAsia Indonesia tickets manifest in the form of customer’s expectation. Typically, the customer’s expectations are concern with the price and quality balance. So, in the case of AirAsia Indonesia, the quality is not a variable. Being an LCC airline, the customer will expect a set quality of services from AirAsia Indonesia. Therefore, the variable part of the customer’s expectation is the price only.

In conclusion, out of three antecedents of the purchase intention in TPB, the perceived behavioral control is irrelevant because purchasing airline ticket is an irregular behavior whereas perceived behavioral control pertains to habitual behavior. The other two antecedent variables, namely, attitude and subjective norms could be influenced by continuous promotions so the variable of interest could be promotions, which is part of theory of marketing mix.

Theory of Marketing Mix

The basic marketing mix theory suggests that product, place, price and promotion do influence the customer purchase intentions. Since, the product in context is low cost airlines and the target customers are middle class passengers in Indonesia hence the variable components of marketing mix theory are price and promotion (Kotler, Wong, Saunders, & Armstrong, 2005).

According to Kotler et al, price refers to the value which customers exchange for a service or product. Hence, it is essential for a company to preserve loyal customers who are willing to pay higher prices for their favorite brand. Kotler et al. (2005) defined price as “the amount of money charged for a product or service, or the sum of the values that consumers exchange for the benefits of having or using the product or service”. They also stated that price is definitely a consumer’s consideration when they are about to purchase a product or service. It is the only component in the marketing mix that creates revenues (Kotler, Wong, Saunders, & Armstrong, 2005). Price relates to buyer’s decision and it becomes important in buying process, because customer satisfaction is directly influenced by price perception and also indirectly influenced by price fairness (Lembang, 2010). The impact of customer perception of price fairness towards purchase can be referred to as an appropriate measurement for customer purchase decision (Lee, Abdou, & Assion, 2011).

It is difficult to measure price as a variable against purchase intention which is an attitudinal variable. In any case, the customers do not bother about the minor differences in the prices. What
is appropriate is the reaction about the prices which becomes an attitudinal variable. The attitudinal variables can be measured by a Likert type of scale. From the customer’s perspective, what is important is the sensitivity towards the price. For example, the customer can be asked about the degree of affordability or the degree of appropriateness. If the price is measured in such a manner, the relationship between the price and the purchase intention can be established directly.

According to textbooks on marketing, brand is a name, term, symbol, design or all the above, which can be used to distinguish one’s products and services from its competitors (Kotler, Wong, Saunders, & Armstrong, 2005). In summary, brand image can be defined as reflection of consumers’ memories in terms of brand associations with a product (Keller, 1993). Through brand image, consumers will be able to recognize a product, evaluate the quality, lower purchase risks, and obtain certain experience and satisfaction out of product differentiation (Wu & Lo, 2009).

Some researchers feel customers could be satisfied by purchasing a product with a well-known brands and also they could minimize any purchase risks by doing so. Therefore, consumers are like to purchase well-known brand because they consider that the product can be able to satisfy them and therefore, brand image is a precursor of purchase intention (Bhakar, Bhakar, & Bhakar, 2013).

Research Gaps

While reviewing the literature, it was felt that TPB is not directly applicable to the present study, because it deals with habitual behavior and regular purchase decisions when it talks about personal behavioral control. Therefore, for the irregular purchases of airlines tickets, the underlying theory has to be different. It was also apparent that the other two variables attitude and subjective norms can be influenced by continuous promotion and the strength of brand image. Therefore, more relevant in context of this research is the marketing mix theory. While the place and products are fixed, the variables of interest are price and promotion. The brand image is in a way result of promotion but while promotion is a continuous and dynamic concept brand image is cumulative impact of promotion and many other things like satisfaction, company performance, and other activities which are beyond the scope of this research.

3. METHODOLOGY

To summarize, the theoretical issue to be answered was whether perception of price, exposure to promotion and brand image can be directly linked to the purchase intention. It was planned to use a quantitative research design modeling the research objective in a research framework.

Research Framework

The research objectives are visually expressed as the framework showed in Figure 2 below:
There are four hypotheses in context of AirAsia Indonesia and low cost airlines:

**H1: Perception of low price has positive impact on customer purchase intention**

The H1 postulates that direct individual impact of low price perception on the customer purchase intention would be positive, where perception of low price is measured by indicators, such as importance, affordability and appropriateness of the ticket price and whether the price is comparable to other low cost airlines. The scale to measure price perception was adapted from an earlier study (Virawan, 2013) but a pilot test, on a sample of 40 adults selected from among the users of low cost airlines, was conducted to check reliability and Cronbach Alpha was found to be adequate at 0.64. The validity check using factor analysis also showed that only one component could be extracted while factor loading was 0.67-0.77 for each of the 4 indicators.

**H2: High exposure to promotion has positive impact on customer purchase intention**

The H2 postulates that direct individual impact of high exposure to promotion on customer purchase intention would be positive, where high exposure to promotion is measured by the indicators, such as exposure to deals, time limits, adequate information, social media presence and perception of attractiveness. The scale was borrowed from another study (Puspitadewi, 2013) but reliability and validity was checked through a pilot test. The Cronbach Alpha was 0.75. Only one component was extracted with factor loadings 0.68-0.76 for each of the 5 indicators.

**H3: High brand image has positive impact on customer purchase intention**

The H3 postulates that direct individual impact of high brand image on customer purchase intention would be positive, where brand image is measured by brand awareness, brand prestige, brand association with service, routes and safety. The scale was adapted from another research (Chen, 2010) but subjected to a pilot test. The Cronbach Alpha was 0.64 in case of reliability test. Only one component could be extracted with factor loading of 0.66-0.81 for each of the 5 items.
**H4: The joint impact of low price perception, high promotion exposure and high brand image on customer purchase intention is positive**

The H4 postulates that the joint impact of all the antecedents combined on customer purchase intention would be positive. The measurement of customer purchase intention is achieved through the indicators like intent of purchase, intent of repurchase, intent of seeking information, and intent of seeking advertisements. The scale to measure customer purchase intention was adapted from an earlier study (Mirabi, Hamid, & Hamid, 2015). The Cronbach Alpha was high at 0.87 and the factor loadings were also high at 0.81-0.85 for each of the 4 indicators. Only 1 component could be extracted.

Therefore, the research instrument to measure the four variables was tested to be reliable and valid, which needed to be supported with a robust sampling plan.

**Sampling Plan**

Sampling population refers to the all elements, individuals, or units of the selection criteria for a group to be studied (Sekaran & Bougie, 2016). The sampling population for this research was chosen as Jakarta capital region residents, who use low cost airlines. The reason of selecting this population was that Jakarta represents the Indonesia, which is likely to use flight as a mode of transport. Almost all middle class or higher class group have some connection with Jakarta because of the dense concentration of government offices, educational institutions, business and other institutions. The sampling frame chosen was residents who often access social media.

Since, the population of Jakarta is in millions, a sample size of 384 was decided based on the sample size tables used by almost all social science researchers (Krejcie & Morgan, 1970), wherein if the size of population is more than 50,000 the sample size freezes to the number 384.

It was decided to use simple random sampling using online survey. A random sample is a sample in which each member of the sampling frame can be selected as a study participant. A non-random sample is a sample in which each member of the sampling frame does not have an equal chance of being selected as a participant. The data was collected using online questionnaire by spreading Google Docs’ link through all the social media networks. It was decided to use the web-based survey which is cheaper than the other types of survey plus it is effortless compared to doing a verbal or telephone survey. Questionnaires are also limited to those respondents who are clearly able to read and respond. In order to limit the respondents to Jakarta residents only, a filtering question was included in questionnaire asking if the respondents live in Jakarta. The respondents which did not live in Jakarta were excluded from the final data sample acquired. The online survey was closed when 384 valid entries were received. The sampling was random as none of the respondents were purposively selected. Literally, all the social netizens of Jakarta had equal probability of getting selected.

In the final sample characteristics, there were 214 male respondents (56%) and rest females. In terms of age 319 respondents were from the age group 20-30 (83%). There were 221 students (58 %), 101 employees (26%), 43 entrepreneurs (11%). From the income level perspective 159 respondents (41%) had income less Rp 2.5 million a month, 127 respondents (33%) had monthly income of Rp 2.5 -5.0 million a month and the remaining 98 respondents (26%) had income more than Rp 5 million a month. The frequent fliers were 96 (25%) and the remaining used flights once in a while. In terms of low cost airlines, 304 respondents (79%) had used AirAsia.
4. FINDINGS

The descriptive findings confirmed the general marketing mix theory. The evidence can be presented for each variable.

Perception of Low Price

From the sample, 73% respondents agreed or strongly agreed that the price was important while purchasing airline ticket and only 4% disagreed or strongly disagreed. Then 74% respondents agreed or strongly agreed that AirAsia Indonesia prices were affordable. Only 6 respondents (1.5%) disagreed or strongly disagreed. However, only 200 respondents (52%) agreed or strongly agreed that AirAsia Indonesia ticket prices were appropriate and 32 respondents (8%) disagreed or strongly disagreed. On the same line 205 respondents (53%) agreed or strongly agreed that AirAsia Indonesia tickets were cheaper than other airlines while 30 respondents (7.8%) disagreed or strongly disagreed.

Therefore, based on descriptive analysis the perception of low price should favor customer purchase intentions.

High Exposure to Promotions

Similarly, it was seen that the respondents had a high exposure to the AirAsia Indonesia promotions. A large number of 288 respondents (75%) agreed or strongly agreed with promotion deals of AirAsia Indonesia and only 11 respondents (2.8%) disagreed or strongly disagreed. Then, 234 respondents (61%) agreed or strongly agreed with promotion attractiveness of AirAsia Indonesia and only 14 respondents (3.7%) disagreed and strongly disagreed. Out of the sample 195 respondents (51%) agreed or strongly agreed about the knowledge of AirAsia promotions on social media like Facebook, Twitter, etc. and but a substantial 66 respondents (17%) disagreed or strongly disagreed. Out of them, 219 respondents (46%) agreed or strongly agreed that they had knowledge about when the promotions get expired while 45 respondents (12%) disagreed or strongly disagreed. Finally, 199 respondents (52%) agreed and strongly agreed that information about the promotions of AirAsia can be easily acquired while 33 respondents (9%) disagreed or strongly disagreed.

Therefore, based on descriptive analysis, there was generally high exposure to promotions of AirAsia Indonesia which should reflect on high impact on customer purchase intentions.

High Brand Image

In terms, 295 respondents (77%) agreed or strongly agreed that they could identify brand of AirAsia Indonesia with low cost airline while 19 respondents (4.9%) disagreed or strongly disagreed. A majority of 296 respondents (77%) agreed or strongly agreed that AirAsia Indonesia is a well-known brand and only 14 respondents (4%) disagreed or strongly disagreed. Only 130 respondents (32%) agreed or strongly agreed that AirAsia Indonesia brand could be identified with service satisfaction and a substantial 81 respondents (21) disagreed or strongly disagreed. A better response was seen in terms of AirAsia brand reflecting high number of routes available with 211 respondents (55%) agreeing or strongly agreeing while only 25 respondents (6%) disagreeing or strongly disagreeing. Finally, only 124 respondents (32%) agreed or strongly
agreed that AirAsia Indonesia brand could be identified with safety and 58 respondents (15%) disagreed or strongly disagreed.

It is seen that brand image of AirAsia Indonesia is not as high in the Indonesian mindset. While most agreed that it is a well-known brand but not as many agreed about the brand being identified with service, routes or safety. Still there should be some positive impact on customer purchase intentions.

Measure of Customer Purchase Intentions

In terms of purchase intentions, 229 respondents (60%) agreed or strongly agreed that they had intent to purchase AirAsia Indonesia tickets while 27 respondents (7%) disagreed or strongly disagreed. Then, 203 respondents (53%) agreed or strongly agreed that they had intent to seek information regarding purchasing AirAsia Indonesia tickets while 25 respondents (6%) disagreed and strongly disagreed. A large number of 188 respondents (49%) agreed or strongly agreed that they actively look for sale advertisements of AirAsia Indonesia while 45 respondents (12%) disagreed or strongly disagreed. A substantial 204 respondents (53%) agreed or strongly agreed with intentions to repurchase AirAsia Indonesia tickets again and only 33 respondents (9%) disagreed or strongly disagreed. Finally, 177 respondents (46%) agreed or strongly agreed to recommend and 63 respondents (16%) disagreed or strongly disagreed.

Test of Hypotheses – Individual Impact on Customer Purchase Intentions

The hypotheses H1-H3 cover individual impact of the three antecedents on the customer purchase intention. These findings about these hypotheses are summarized in Table 4 below:

<table>
<thead>
<tr>
<th>Hyp</th>
<th>Description</th>
<th>DV</th>
<th>IV</th>
<th>Adj. R² (r)</th>
<th>F Value (Sig)</th>
<th>Beta/ Std. Coeff.</th>
<th>t-Value (Sig)</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1</td>
<td>PP → CPI</td>
<td>CPI</td>
<td>PP</td>
<td>.206 (.457)</td>
<td>100.58 (.000)</td>
<td>.457</td>
<td>10.029 (.000)</td>
<td>Supported</td>
</tr>
<tr>
<td>H2</td>
<td>PE → CPI</td>
<td>CPI</td>
<td>PE</td>
<td>.345 (.589)</td>
<td>202.54 (.000)</td>
<td>.589</td>
<td>14.232 (.000)</td>
<td>Supported</td>
</tr>
<tr>
<td>H3</td>
<td>BI → CPI</td>
<td>CPI</td>
<td>BI</td>
<td>.274 (.526)</td>
<td>145.792 (.000)</td>
<td>.526</td>
<td>12.074 (.000)</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Note: Abbreviations are IV – Independent Variable, DV – Dependent Variable, PP – Price Perception, PE – Promotion Exposure, BI – Brand Image, and CPI – Customer Purchase Intentions.

From the Table 4 it can be seen that all the hypotheses from H1 to H3 are supported. It implies that all the three variable Price Perception (PP), Promotion Exposure (PE) and Brand Image (BI) have strong individual impact on Customer Purchase Intention (CPI). Since each of hypotheses have just one independent variable (IV) there was no need to check the collinearity statistics. There is a strong correlation close to 0.5, the F-values are above 100 with p-value at 0.000 indicating more than 99% confidence interval or high significance. Same is the case with standard coefficients which have high t-values that have high significance with p-value at 0.000.
The hypothesis H4 covers the combined impact of price perception, promotion exposure and brand image on customer purchase intention. This is a simple but multiple linear relationship. Hence, again, a simple linear regression was run and the results are presented in the Table 5 below:

**Table 5. Test of Hypotheses – Joint Impact**

<table>
<thead>
<tr>
<th>Hyp</th>
<th>DV</th>
<th>Adjusted R² (r)</th>
<th>F Value (Sig)</th>
<th>IV</th>
<th>Beta/Std. Coeff.</th>
<th>t-Value (Sig)</th>
<th>Collinearity/Tolerance</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H4</td>
<td>CPI</td>
<td>.424 (.651)</td>
<td>93.37 (.000)</td>
<td>PP</td>
<td>.075</td>
<td>1.491 (.137)</td>
<td>.594</td>
<td>Supported</td>
</tr>
<tr>
<td></td>
<td>PE</td>
<td>.408</td>
<td>8.424 (.000)</td>
<td>BI</td>
<td>.285</td>
<td>1.908 (.000)</td>
<td>.650</td>
<td></td>
</tr>
</tbody>
</table>

Note: Abbreviations are IV – Independent Variable, DV – Dependent Variable, PP – Price Perception, PE – Promotion Exposure, BI – Brand Image, and CPI – Customer Purchase Intentions

The Model Fit Summary shows that adjusted R square value is 0.424, which is high and signifies high correlation between the combined set of independent variables and dependent variable. The F – value is 93.37 which is high and significant with margin of error (p-value) at 0.000. Therefore, it can be concluded that there is a strong joint impact of price perception, promotion exposure and brand image on customer purchase intention. Therefore, the findings support H4. However, it can be noticed that while the standard coefficients of promotion exposure (PE) and brand image (BI) are significant shown by the t-statistics which have no margin of error (p-values) at 0.000, the coefficient of price perception is not significant with high p-value at 0.137.

The findings mean that while overall joint impact of the three variables is positive, the impact of promotion exposure is the highest. The coefficient of promotion exposure is higher than brand image indicating its comparative importance. The price perception, it turns out, is insignificant in the presence of promotion exposure and brand image.

**5. CONCLUSIONS**

The main objective of this research was to explore the customer purchase intention towards low cost airlines because the low cost airlines are proliferating at a much higher speed and getting popular. The flight is no more for only the affluent class but has become affordable and becoming as common as riding a bus. In a country like Indonesia with thousands of islands it could be the only viable alternative in context of public transportation. There were not many studies.

The earlier researches often used the theory of planned behavior (TPB) to explain the intentions. But, while reviewing the literature, it was felt that TPB is not directly applicable in the context of low cost airlines, because TPB deals with habitual behavior and frequent purchase decisions and not with not so cheap and infrequent decisions to take a flight. The TPB is,
actually, applicable to the habits or regular behavior with some ethical component as evident by the variable behavioral control which become irrelevant in context of airlines. For example, the researchers have used TPB to explain the behavior towards environment or recycling. Further it was shown that main variables of TPB, such as, attitude and subjective norms could be heavily influenced by continuous promotions and advertising.

Theoretically, it was interesting to explore what influences the customer purchase intention in context of low cost airlines. By the nomenclature itself it comes to mind that low price of tickets would be the most significant determinant but this research shows that price perception is a significant determinant but not the important determinant, especially, if considered along with the promotion exposure and brand image. The most important variable turned out to be promotion exposure. That means what really lures the customers is not the low price but the promotions. This leads to the time tested theory of marketing mix especially the components price and promotion.

This research, possibly, paves way for the future researches into the customer perceptions and customer purchase intentions of the low cost airlines, both from theoretically as well as from managerial or business perspectives also.

REFERENCES


The Relationship between Entrepreneurial Education, Family Background, Innovativeness, and Entrepreneurial Capabilities toward Entrepreneurial Intention

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**Abstract**

This research aims to find out the impact of entrepreneurial education, family background, innovativeness, and entrepreneurial capabilities toward entrepreneurial intentions of university students in Indonesia. Data were collected from 300 respondents, which most of them were undergraduate students and the others were from graduate students in Greater Jakarta. The purposive sampling method was applied to reach students who had entrepreneurship education before. A survey method of quantitative research method was applied through a questionnaire as the instrument. Construct validity using factor analysis and reliability test with Cronbach’s alpha were applied before the hypothesis was tested. The result shows that innovativeness and capabilities significantly influence entrepreneurial intention but not family background. To increase entrepreneurial capabilities, entrepreneurial education is a must shown by the result as well.

**Keywords**: entrepreneurial education, family background, innovativeness, entrepreneurial capability, entrepreneurial intentions

1. **INTRODUCTION**

Unemployment is one of the latent problems of any countries. The latest report from World Bank shows that in 2018 the world unemployment rate was at 5.78%. This number dropped from the previous year 2017 amounted to 5.48%. This number has been declined since 2009 (5.92%) after passing the economic crisis in 2008 (“Unemployment with advanced education, 2018”). Furthermore, the report states that Unemployment does not only occur in uneducated
people or people with low education level, but it also occurs in people with higher education levels. Even in developed countries such as in Europe (Euro Area), the level of educated unemployment is still quite high. In addition, educated unemployment in Europe reached 7.99% of the total workforce with advanced education in 2017 dropped from 11.29% in 2011. Compare to the United States alone, educated unemployment has also reached 5.26% in 2010 and has finally dropped to 2.79% in 2017.

In some countries in the Asia Pacific, educated unemployment is also still quite high and varies between countries. Educated unemployment rate in India even reached 18.4% during 2015 to 2016 (“Open Data Government Platform India”, 2015), in Korea the number was 4.05% in 2015. The educated unemployment rate was rather low in Japan which amounted to 2.63% in 2015 (“Unemployment rates by education level”, 2018). As for Southeast Asia, the educated unemployment rate still above 4%. Singapore in 2015 had 4.05% educated unemployment and Malaysia had 4.04%. While Indonesia in 2015 was much higher at 6.24%. Nevertheless, the latest data in 2017 shows this number has dropped to 4.90%. However, educated unemployment rate with university level reached 5.89% in Indonesia. This number is higher than unemployment with primary and secondary education level (“Tingkat Pengangguran Terdidik”, 2019).

The high level of unemployment is a serious problem. Unemployment brings both personal and social economic problems. Parkin (2016) stated that unemployment results in both lost in incomes and production, and lost in human capital. The loss of jobs bring a loss of income for individuals and because they don’t work, they lost their productivities. In addition, when individuals lose of jobs, they lose their human capitals. since they have to have to work in jobs with unequal level with their education and working experiences or don’t have any job at all. This lead to money and knowledge lost they had invested in their education. Finally, these negative results could collectively damage the national income and economic growth of a country (Parkin, 2016).

One of the solutions to decrease unemployment is the development of entrepreneurship. Udih and Odibo (2016) found that entrepreneurship growths encourage wealth creation and create employment in Nigeria. They also found that entrepreneurship development encourages GDP growth in that country. Kasseeah (2016) used secondary data from 125 countries and found that the economic development of the countries is affected by entrepreneurship. Hence, it can be concluded that entrepreneurship development could be a solution to unemployment and economic of nations.

Realizing the importance of entrepreneurship, it is a must for any nations to promote entrepreneurship in order to increase the intention of youngsters to become an entrepreneur. Hence, many researchers are triggered to find factors to increase entrepreneur intention. One of the factors to increase the intention to become an entrepreneur is to increase entrepreneurial capabilities (Jiao, dt ogilvie, & Cui, 2010). Chang and Rieple (2013) have also found a similar result where the increased entrepreneurial capabilities have increased students confidence as well. These capabilities are gained through education, like college, seminar, workshop etc (Patricia & Silangen, 2016). Hence, this is an investment for students to start a new business through the integration of experience, skills and knowledge (Ishaq, 2010). Furthermore, Meccynska (2012) and Ahmed, Nawaz, Ahmad, Shaukat, Usman, and Wasim-ul-Rehman (2010) found that innovativeness is also triggering the intention to become an entrepreneur. In addition, family background has also the support to be one of the antecedents of entrepreneurial intention (Berrone et al., 2012; Ramona, 2011).
Thus, the study aims at finding the antecedents of entrepreneurial intention in a hope to increase the number of entrepreneurs especially in Indonesia to support the sustainability of the country and reduce the number of the unemployment rate. Though there are many studies on entrepreneurial intention, this is, for the best of knowledge of the researchers, is the first study relating entrepreneurial education, family background, innovativeness, and entrepreneurial capabilities toward entrepreneurial intention.

To achieve the aims, this study is arranged as an introduction where the background of the problem is introduced along with the objectives of the study, followed by a review of the literature and relevant research associated with the problem address in this study. Methods come following review of the literature, describing the respondent profiles and validity and reliability testing procedure and results. Discussions and conclusions present the researcher's findings, the implication for practice and recommendation for future research.

2. LITERATURE REVIEW

Entrepreneurship Education

Ibrahim and Soufani (2012) found that willingness to become an entrepreneur increases for those who have attended an entrepreneurship courses compare to those who don’t in Canada. Further they state that entrepreneurship training is the major factor to be success in their entrepreneurship journey. Jiao, dt ogilvie, and Cui (2010) also argue that entrepreneurship education and training contribute a lot in one’s capability in entrepreneurship. Nandamuri and Gowthami (2015) found that entrepreneurship education creates entrepreneurship orientation and at the end increases the intention to become an entrepreneur. Rauch and Hulsink (2012) argue that by promoting entrepreneurship, economies can further generate economic growth and employment. Hence, entrepreneurship education could be one way to increase the prevalence rate of entrepreneurs and stimulate economic growth.

Wu and Wu (2008) proposes that educational background will impact on someone’s personal attitudes, pressures from families, and colleagues, and increase perceived behavioral control to start a new venture. Thus, it enhances the intention to become an entrepreneur. Silangen (2016) argues that entrepreneurship education can be measured through number of courses taken that increases one’s ability. Seet and Seet (2006) also found similar results in Singapore where education (experiential learning) contributes in intention to become an entrepreneur among students of tertiary education. They also argue that experiential learning contributes to the better capabilities (competencies) on students. Ikebuaku and Dinbabo (2018) found that entrepreneurial education influence entrepreneurship capabilities and in turn influences entrepreneurship intention in Nigeria. Hence, the hypothesis proposes here is:

H1: Entrepreneurial Education influences Entrepreneurial capabilities
H2: Entrepreneurial Education influences Entrepreneurship Intention

Entrepreneurial Capabilities

Jiao, dt ogilvie, and Cui (2010) argue that “entrepreneurs’ capabilities comprise four kinds of capabilities: conceptual capabilities, interpersonal capabilities, leading capabilities, and entrepreneurial capabilities”. Conceptual capability includes understanding, judging, analyzing,
decision making, and innovative capabilities. Interpersonal capability includes expressing, relationship dealing (guanxi), and concerning public affairs capabilities. Leading capability includes planning, organizing, coordinating, directing, and controlling capabilities. Entrepreneurial capability includes risk-taking, team managing, and opportunity recognition capabilities. They further state that risk-taking ability can be increased through high level of self-efficacy; opportunity recognition can be increased through high individual cognitive ability; and team managing skill at the end could be done by having the risk-taking and cognitive ability.

H3: Entrepreneurial Capabilities influence Entrepreneurship intention

Family Background

There are some different opinions and perception from every author to defines a family. Ahmed et al. (2010) state that family is the qualities that have a suggestion on development of new business, acknowledgment of chance, start-up choices and asset assembly and furthermore relatives in business is turned into an image for business person and wellspring of money related and non-monetary help. Families were framed alongside little networks some time before trade started and a family is frequently the fundamental inspiration for beginning and developing a business (Zachary, 2011). Furthermore, Haya (2014) states that family is generally displayed in the current privately-owned company literature as an undifferentiated idea, and, thus, it is infrequently comprehended as an arranged marvel yet rather "consequently credited by goodness of blood or marriage" and family is the presence of a line partitioning an open circle of work from a private circle of home, family and kids is considered important in the enterprise literature. In addition, families are one of a kind social frameworks that depend on commitment rather than formal contracts, and participation (for a few) depends more on blood or marriage related than capabilities and family of orientation is characterized as the degree people inside the gathering see and esteem family association (Burch, Batchelor, Burch, & Heller, 2015).

According to Zachary (2011) family background can be measured through the family business, which are existence of family, presence of family member, reflection of family values, actions of family member reflected on reputation of business, presence of relatives involved. In addition, Berrone, Cruz, and Gomez-Mejia (2012) found that the family’s attributes for the affective need are identity, the ability to exercise family influence and the continuation of family dynasty. Nandamuri and Gowthami (2015) found that family background influences entrepreneurship intention in India. Rauch and Hulsink (2012) also found that family background influences entrepreneurship intention among IT students.

H4: Family Background influences Entrepreneurship Education.

Innovation

Innovativeness is how much an individual settles on creative choices autonomously of the conveyed involvement of others (Blythe, 1999). From economic perspectives, innovativeness is seen as a standout amongst the most critical components that empowers the survival, development and aggressiveness of firms (Kmieciak, Michna, & Meczynska, 2012). Moreover, they argue that innovativeness is by and large defined as a firm's propensity and capacity to present developments, while an advancement is the execution of another or significantly
improved product, process, or authoritative or marketing technique. Further, de Jong and den Hartog (2007) state that individual innovation is fundamental to a few understood management principles, including all total quality management, consistent improvement plans, corporate wandering, and hierarchical learning. Ahmed, et al., (2010) also argue that the motivation to earn profit and growth contribute towards the innovativeness of the entrepreneurs. Hence, innovation is something that valuable than the creation and it consists of idea commercialization, implementation of the idea, and also includes some modification of presented products, resources, and system.

Based on Kmieciak et al (2012) dimensions this study adopt the innovation measurement through income growth, employment growth, profitability growth, and subjective measure. Büyükbeşe & Yıldız (2017) found that innovation increases entrepreneurship intention and at the end increase company’s performance in term of profit.

H5: Innovation influences Entrepreneurship Intention

Entrepreneurial Intention

Intentions are the absolute best indicator of any planned behaviour, including entrepreneurship and furthermore expectations are an essential result of planned behavior (Mahmood, 2017). Hence, it is a critical factor to encourage entrepreneurial intention. There are a few authors have characterized entrepreneurial intention as a perspective that individuals wish to make another firm or another esteem driver inside existing firms (Wu, 2008). According to Koe, Saari, Majid, and Ismail (2012) entrepreneurial intention is the result of one’s increasing knowledge regarding entrepreneurship which is gained through certain courses or education. In addition, Ishaq (2010) states that intention is a personality trait to launch a new business, success in business, and enhance entrepreneurial set up as the result of one’s experiences in entrepreneurial activities. Furthermore, Linan (2008) considers an entrepreneurial intention as the most important factor to build in order to comprehend the process of creating a new business. Thus, it can be concluded that entrepreneurial intention is a strong determination of a person to start a business.

Based on theory of planned behavior (TPB), Krueger JR categories intentions into personal attitude toward the behavior, subjective norm and perceived behavioral control to measure entrepreneurial intention (2000, as cited in Wu & Wu, 2008). Personal attitude someone’s understanding of the behavior which is the result of his/her thought. Subjective norm refers to how much the behavior will agree to the wishes of others. For perceived behavioral control is how a person perceived his/her skills to conduct such behavior. Thompson acknowledged the assortment of operationalization utilized in ongoing examination mirrors this theoretical detachment, especially when confined with regards to the theory of planned behavior that underlies our present best comprehension of antecedents to entrepreneurial intention (i.e., beliefs, attitudes, intentions, and actions) (2009, as cited in Valliere, 2014). It measured by attitudes (evaluating individual wants and social standards), behavior (evaluating accomplishment), and of future expectations (evaluating likely results without reference to individual organization).

3. RESEARCH METHODS

The study was a survey study with questionnaire as the instrument measured by a seven-point likert scale, where a score of 1 stated “strongly disagree”, 4 stated “neutral”, and a score of 7
stated “strongly agree”. The population of study was business students from universities located in Greater Jakarta. The total responses gained after 2 months were 300 respondents for this study, using purposive sampling, with the total of 44.7% respondents were female and 55.3% male. For the age, most of them (60%) were from 17-21 years old, the rest was between 22-25 years old (40%). Before running the validity and reliability testing, data were tested for eligibility and found they were eligible by looking at KMO-MSA was .924 (> .5) and Bartlett’s test was significant (p < .005). The communalities were ranging from .6 - .7 (> .5) and total variance explained was 70% (>=60%). Construct validity shows convergence between item measurement and construct being measured without having any discriminant problems. The factor loading for entrepreneurial education was ranging from .695 to .805, for entrepreneurial intention was ranging from .498 to .806, for innovation was ranging from .619 to .757, family background was ranging from .742 to .842 and capabilities was ranging from .595 to .666 (Table 1). However, some items (EI1, FB4, FB6, and EC3) were deleted to maintain the construct validity. As for the reliability, all constructs show higher than .6, with Education is the highest (.913). followed by Intention (.868), Innovation (.844), Family Background (.835), and Capabilities (.787) (Table 1).

4. ANALYSIS AND RESULTS

Before further discuss the result of the hypothesis, the sample size and model characteristics was tested with the criteria proposed by Hair, Babin, Black, and Anderson (2018) and found to be fit (chi-square = 489,365; probability = .0001; CMIN/DF = 2.458; IFI = .925; TLI = .913; CFI = .925; RMSEA = .07) (Figure 1). H1 proves there is a strong evidence that education background influences entrepreneurial capabilities (β = .607, CR = 10.049, p < .001) which in turn influences entrepreneurial intention as anticipated in H2 (β = .307, CR = 3.204, p < .001). Thus, it can be concluded that students who got entrepreneurial education can develop their entrepreneurial capabilities better have bigger probability to become an entrepreneur. Furthermore, it is estimated that the entrepreneurial education as the predictor of Capabilities explain 58.6 percent of its variance. Apart of Entrepreneurship education indirect influences on Entrepreneurship Intention through capabilities, it also has direct influences on entrepreneurship intention as predicted in H3 (β = .220, CR = 2.503, p = < .05). Unfortunately, students who come from an entrepreneur family background did not guarantee them to become an entrepreneur as expected in H4 (β = -.044, CR = -1.239, p < .05). However, H5 is confirmed that the higher innovative characteristic of students the higher they would become an entrepreneur or have a strong desire to become and entrepreneur (β = .470, CR = 7.099, p < .001). In addition, it is estimated that the predictors (Education, Capabilities, Family Background, and Innovation) of Entrepreneurial Intention explain 65.3 percent of its variance (Table 2).

Table 1. Validity and Reliability Testing Results

<table>
<thead>
<tr>
<th></th>
<th>Education</th>
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<th>Innovation</th>
<th>Family Background</th>
<th>Capabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>EE2</td>
<td>.805</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>EE3</td>
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<td>EE4</td>
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<tr>
<td>EE6</td>
<td>.730</td>
<td></td>
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</tr>
</tbody>
</table>
5. DISCUSSION AND MANAGERIAL IMPLICATIONS

The findings acknowledge important managerial and theoretical implications. The relationship between entrepreneurship education and entrepreneurial capabilities extend studies that finds relationship between entrepreneurship education and entrepreneurial capabilities (Ikebuaku & Dimbabo, 2018; Jiao, dt ogilvie, & Cui, 2010). Hence, students need to be given more training on entrepreneurship education in regards to increase their knowledge and skill to be an entrepreneur. Universities, colleges, and training centers need to take practical approach since it is better to suit them in up-scaling their knowledge and skill instead of giving to much of theories. Students with better knowledge and skill will have better motivation to be an entrepreneur.
Table 2. Hypothesis Testing Results

<table>
<thead>
<tr>
<th></th>
<th>Estimate</th>
<th>S.E.</th>
<th>C.R.</th>
<th>P</th>
<th>Label</th>
</tr>
</thead>
<tbody>
<tr>
<td>Capabilities</td>
<td>Education</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entre_Intention</td>
<td>Capabilities</td>
<td>.607</td>
<td>.060</td>
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</tr>
<tr>
<td>Entre_Intention</td>
<td>Education</td>
<td>.307</td>
<td>.096</td>
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</tr>
<tr>
<td>Entre_Intention</td>
<td>Family_Background</td>
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<td>.035</td>
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<td>Entre_Intention</td>
<td>Innovation</td>
<td>.418</td>
<td>.072</td>
<td>5.818</td>
<td>***</td>
</tr>
</tbody>
</table>
Figure 2. Hypothesis Testing

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Kmiciak, R., Michna, A., Meczynska, A. (2012). Innovativeness, Empowerment, and IT Capability:
Evidence from SMEs. *Industrial Management & Data Systems*, 112(5). DOI: 0.1108/0263557121232280.


The Influence of the Quality of Working Life on Employee Job Satisfaction, Organizational Commitment and Intention to Leave in the Small Medium Enterprises in Cikarang District

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Dedi Kurniawan
President University, Indonesia

Abstract

This study investigates the influence of quality of working life impact to employee’s commitment, satisfaction, and intention to stay towards the quality of working life in small medium enterprise and also increasing the employee productivity by knowing the impact of quality of working life. A quantitative research method was applied through survey and a questionnaire as the instrument with the strict condition where respondents were only those who were currently work as a full-time employee from small and or medium enterprises. The questionnaire was filled up by 206 small medium enterprise employees in Cikarang District. After conducting construct validity and reliability test, a structural equation modeling was conducted to test the hypothesis and the result suggests that quality of work life influence employee’s commitment, employee’s satisfaction, and employee’s intention to leave.

Keywords: Employee Performance, Quality of Working Life, Commitment, Satisfaction, Intention to Leave

1. INTRODUCTION

Realizing high cost in recruiting and training new employees, retaining current employees are seen as the best investment for companies and even attracting best talent to join the company (Alzayed & Murshid, 2017; Lee, Back, & Chan (2015). Islam and Alam (2014) argue that having high employee turnover only do bad to companies such as creating ineffectiveness, decrease profit, high financial costs, problems among coworkers, extra work, high stress, quality loss, unable to adapt to environment changes, productivity loss, less innovation, low competitiveness,
and even high cost for new recruitment and training. Having high employee turnover resulting in shortage of human resources which impact to other employees such as heavy workload that will create high job stress and at the end will create other employees to resign from work (Gamage & Buddhika, 2013; Masum, Azad, Hoque, Beh, Wanke, and Arslan, 2016). This is in line with Rizwan, Arshad, Munir, Igbal, Hussain (2014) that state poor behavior causes by less number of human resources in a company. Hence, the investigation of the employee intention to leave is as yet an essential field in business since talented worker's maintenance and worker turnover is imperative difficulties the board of management, in this case human resource department, face in various companies (Alzayed & Murshid, 2017).

To decrease the intention to leave of workers, it is very important to increase their job satisfaction (Islam & Alam, 2014; Gamage & Buddhika, 2013), organizational commitment (Park & Jung, 2015; Nazir, Shafi, Qun, Nazir, & Tran, 2016) and also quality of work life (QWL) (Lee, Dai, Chang, Chang, Yao, & Liu, 2017; Ioannou, Katsikavali, Galanis, Velonakis, Papadatou, & Sourtzi, 2015). Besides having direct influence, QWL is also considered to have indirect influence on intention to leave through job satisfaction (Laschinger & Zhu, 2016; Lee et al, 2015) or organizational commitment (Farid, Izadi, Ismail, & Alipour, 2014; Eren & Hisar, 2016). However, Farid et al (2014) state that there is very limited research conducted to find out the relationship among QWL and organizational commitment.

Thus, this study aims to find out the relationship between quality of work life (QWL), job satisfaction, organizational commitment and intention to leave among workers in small medium enterprises in Cikarang District.

2. LITERATURE REVIEW

Quality of Work Life (QWL)

Since retaining employees are important for companies, one of the key factor for retaining is not only job satisfaction but also having a good quality of working life provided by companies (Sulaiman, Choo, Yassim, Van Laar, Chinna, & Majid, 2015). Phan and Vo (2016) define quality of work life as satisfying condition as a result of exchanging workers’ basic needs and self-actualization needs and what company can offer for pairing them. Further they argue that QWL is measured through employer stability, working environment and monetary additions, positive connection among assurance and profitability, equal employment opportunity, human needs and expectations, and relationship between motivation and leadership. Swamy, Nanjundeswaraswamy, and Rashmi (2015) define QWL as “an extent to which an employee is satisfied with personal and working needs through participating in the workplace while achieving the goals of the organization”. They also argue that QWL is the key to reduce employees resigning the company. Eren and Hisar (2016) argue that factors need to be considered in shaping QWL are support services working environment and conditions, engagement with directors and coworkers, work perception, and salary benefits.

Farid et al (2014) found that QWL influences organizational commitment among faculty members in a university. In line with Pradhan, Jena and Kumari (2016), they also found the same results in the manufacturing industries. Lee et al (2015) define QWL as workers’ welfare in exchange to what they receive from companies such as salary benefit and good working condition which lead into satisfaction. They found that QWL influences job satisfaction in lodging industries. Laschinger and Zhu (2016) in a research conducted in Canada found that
QWL influences job satisfaction and retention of nurses. Aluwihare-Samaranayake, Gellatly, Cummings, & Ogilvie (2018) examines published paper from 1958-2017 and concluded that QWL influences not only organizational commitment but also intention to stay among nurses in Sri Lanka. A study of nurses in Ankara as well found that QWL influences organizational commitment (Eren & Hisar, 2016). Similar findings by Birdie & Kumar (2015) that high QWL influences organizational commitment, eventhough there is a difference between health workers (high) and doctors (low). Dechawatanapaisal (2017) conducted research in Northern Thailand and found that bad QWL among healthcare professionals directly influences turnover intention and indirectly through organizational embeddedness. Ioannou et al (2015) found that a better QWL will improve intention to stay among nurses in hospitals and primary health centers. Similar findings found by Jabeen, Friesen, and Ghoudi (2018) where QWL was found to have a positive effect on satisfaction and negative effect on turnover intention. In addition, study conducted by Lee et al (2017) in Taiwan among nurses found that QWL is a strong predictor for intention to leave.

H1: Quality of work life influences job satisfaction
H2: Quality of work life influences intention to leave
H3: Quality of work life influences organizational commitment

Job Satisfaction

According to Alzayed and Murshid (2017), job satisfaction is not only an important study for organizational behavior researchers but also for companies since it gives a strong sign of commitment towards the company. They further define job satisfaction as one’s finding self-actualization and having positive emotional feeling through what a company has prepared, provided, and suited at work environment. Masum et al (2016) define job satisfaction as the emotional expression of a person as the result of salary and benefits given, working environment, cooperation among coworkers and supervisors etc. Further they added that unsatisfied employees will have the intention to leave the company and eventually resign from the company which in return will create more work load to the other employees and bad working environment. Islam and Alam (2014) define satisfaction as employees’ happiness toward what has been provided by the company such as working condition, policies, companies support and career advancement. One of the findings of Islam and Alam (2014) as well has proven that job satisfaction, condition and organizational support influences employees’ intention to stay or leave the company. A similar finding is also found by Gamage and Buddhika (2013) that job satisfaction, such as salary benefits and working environment, cooperation of coworkers and supervisors’ treatment, influences intention to stay. Laschinger and Zhu (2016) also found that job satisfaction has positive influence on retention of nurses in Canada. Tarigan and Ariani (2015) that satisfied employees indirectly show negative turnover intention.

H4: Job satisfaction influences intention to leave

Organizational Commitment

Marshall (2010) argues that in order for a company to retain its employees for a long run, commitment is needed. It is believed that committed accomplices are eager to put resources into
profitable resources explicit to a trade, exhibiting that they can be depended upon to perform fundamental capacities later on. It is also believed that accomplice party would willing to sacrifice something to achieve long-term profits. Hence, Marshall (2010) defines commitment as an understood or unequivocal promise of social congruity between trade accomplices. In line with Harrison and Kelly (2010), they define commitment as a functioning relationship with the company to such an extent that people are eager to give something of themselves so as to add to the company's prosperity. Commitment, according to Smith, Mithcell, and Mitchell (2007), has been conceptualized as a mindset which prompts a person toward a strategy of pertinence to at least one target in entrepreneurship context. In the high-technology manufacturing context, commitment become very sacred to achieve companies’ performance (Simon, Stachel, & Covin, 2011).

Marshall (2010) and Kelly (2004) measures commitment through affective (loyalty) and calculative commitment. The affective commitment is more to willingness to maintain relationship with the company, whereas the calculative commitment, on the contrary, is the degree to which trade accomplices see the need to keep up a relationship given the foreseen end or exchanging costs related with leaving. Harrison and Kelly (2010) measures commitment through instrumental commitment (calculative commitment), affective commitment and normative commitment. Normative commitment is defined as connection driven by felt commitment predicated on coinciding between values. Wong and Laschinger (2015) found that commitment negatively associated with turnover intention. Similar findings by Tarigan and Ariani (2015) that high organizational commitment shows negative turnover intention. In addition, a study conducted by Park and Jung (2015) found that high organizational commitment influences negatively turnover intention among full-time workers from various industries in South Korea. In line with that, a finding by Nazir et al (2016) found also that job commitment negatively influences turnover intention of workers from private sector in China. In another attempt by Kang, Gatling & Kim (2015), they found that commitment influences negatively turnover intention among hospitality instructors in southwestern US.

H5: Organizational commitment influences intention to leave

Intention to Leave

Alzayed and Murshid (2017) argue the most important factor for employees for really resigning from work is the intention to leave. It may happen due to employees’ bad impression of the company and their duty. Masum et al (2016) argue that the bad work environment, supervisors and coworkers are the reasons for employees’ intention to leave a company apart of high workload, job stress and burnout. In addition, Islam and Alam (2014) state that the real turnover is caused by unsatisfied in work environment, then intention to leave the company and really resigning the company. In addition, they state that companies are seeking for intention to stay since employees with that attitude has a strong commitment to grow with the company and eventually become a loyal employee. Furthermore, Gamage and Buddhika (2013) state that the main reason of employees’ resigning from work is mainly because they have first the intention to leave due to many factors, such as poor salary and benefit system, inflexibility in work schedule, unclear career path, unprofessional management, work stress, family obligations, retirement program, and less motivation.

Alzayed and Murshid (2017) define the intention to leave as employees’ willingness to leave
the current company due to some factors and seek for other new company. Islam and Alam (2014) define intention to leave as employees’ willingness to find a new opportunity from other company by leaving current company due to dissatisfaction. Hence, it can be concluded that employees’ resigning from work is merely because their intention to leave work due to unsatisfied to their current company.

<table>
<thead>
<tr>
<th>Table 1. Validity and Reliability Test.</th>
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<tr>
<td>EC3</td>
</tr>
<tr>
<td>Reliability</td>
</tr>
</tbody>
</table>

3. METHODS

Survey method as a tool from quantitative research was applied in this study. Samples taken were 300 employees from 30 small enterprises (90 employees) and 21 medium enterprises (210 employees) in Cikarang with the criteria have been working for the last 3 years and currently work as a fulltime employee. Both respondents were taken based on systematic random sampling. The study was conducted from April to June 2018. Out of 300 respondents, only 206 were usable for further analysis. The next step was data analysis. Construct validity was applied through factor analysis using statistical software. Data used for construct validity were eligible since KMO-MSA showed .913 (>0.5) and Bartlett’s test was significant (p<.005). The communalities were all greater than .5 (QWL: .735-.823; Commitment: .767-.806; Intention to leave: .758-828; Satisfaction: .743-.843). Total variance explained was 78.913% (>60%). Construct validity shows convergence between item measurement and construct being measured without having any discriminant problems. Two items were deleted from commitment (EC1 & EC2) to pass the validity test. Factor loading for QWL was ranging from .702-.848, followed by Satisfaction (.703-.831), Intention to leave (.849-.899), and Commitment (.594-.788). Next step was to test the reliability and all constructs pass the minimum requirement which was .6 (QWL:
4. RESULTS AND DISCUSSION

As proposed by Hair, Babin, Black, and Anderson (2018), model was tested for its goodness of fit before hypothesis testing. The results show good fit (chi-square = 258.329; probability = .0001; CMIN/DF = 2.135; IFI = .958; TLI = .946; CFI = .957; RMSEA = .074) (Figure 1). $H_1$ proves there is a strong evidence that quality of work life influences organizational commitment ($\beta = .782$, CR = 10.265, $p < .001$) and, as anticipated, job satisfaction in $H_2$ ($\beta = .655$, CR = 10.302, $p < .001$). Furthermore, it is estimated that the quality of work life as the predictor of satisfaction explains 64.1 percent of its variance and 60.4% of organizational commitment. As for intention to leave, as predicted, quality of work life, satisfaction and organization commitment have proven to be strong predictors. As quality of work increases the intention to leave is lower as shown in $H_3$ ($\beta = -.382$, CR = -4.228, $p < .05$), higher satisfaction leads to lower intention to leave the company as shown in $H_4$ ($\beta = -.314$, CR = -3.937, $p < .05$) and strong organizational commitment increases loyalty among employees, hence reduces the intention to leave the company as shown in $H_5$ ($\beta = -.296$, CR = -2.683, $p < .05$). In addition, it is estimated that the predictors (QWL, Satisfaction and commitment) of Intention to leave explains 59.6 percent of its variance (Table 2).

![Figure 1. Goodness of Fit](image)

<table>
<thead>
<tr>
<th>Hypothesis testing results</th>
<th>Estimate</th>
<th>C.R.</th>
<th>P</th>
<th>R²</th>
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</thead>
<tbody>
<tr>
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<td>60%</td>
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<tr>
<td>Satisfaction &lt;--- QWL</td>
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<td>10.302</td>
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</tr>
<tr>
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<td>-3.937</td>
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</tbody>
</table>
5. CONCLUSION AND RECOMMENDATION

The results of the study enrich the theoretical and managerial implications. As the study proves that a good quality of work influences satisfaction, organizational commitment and intention to stay, hence company needs to provide a better place for work for their employees. Some factors need to be considered are rewards in term of monetary and non-monetary value, equal chances for their career path, cooperation among colleagues and supervisors, and training opportunities to increase the ability and capabilities. It can’t be denied that people work for some benefits. Hence, companies need to consider their benefit and work load are in line to not create disobedience among employees since they think they work very hard with imbalance to benefit received. Work load which is not part of the job description of an employee but need to be done will require some rewards such as, bonus, motivation, career path etc. Working environment is also need to be considered in term of safety and comfortability. Safety is not only from accident, but also sexual harassment which becomes a nightmare for female workers. Comfortability needs to be provided such as easy access in the company, separation among male and female workers since Indonesia populated by Muslim majority. With multicultural environment, Indonesia especially Cikarang is prone to racism either based on religion or races. Hence, the ability to welcome those who are coming from different believes and races need to be trained and given motivation that they are all in the company. Chances are given based on performance only, thus commitment among employees will be very strong towards the company. The longer the employees stay will benefit the company in the long run since they don’t need to hire and train new employees not to mention to have a mindset of we all are one in this company. With that, any company will grow stronger and ready to compete with other competitors since internally there is no problem holding them.

Some limitations in this study will be handled better for the next study, for example the number of small-medium enterprises covered by this study can be enlarged for the future study. Some variables need to consider such as quality work of life measurement based on multi-dimensions, as well as commitment to be measured with multi-dimensions. Other than that, some other variables need to be considered are demography especially gender, since single female tend to resign due to following their spouse in a new place, and boringness due to longer time working at the same company and also millennials who have different mindset of working compare to X and Y generations.

REFERENCES


Analysis of Generation Gap on Organizational Commitment

Grace Amin
President University, Indonesia

Abstract

There are many issues about differences among generations in the workplace, such as working attitude, culture, leadership and communication style. This research analyzed the generation gap on organizational commitment. The sample used in this research were 408 employees from generation X and Y. Mixed method were used in this research. Researcher asked 408 respondents to fulfil the questionnaire and interviewed representative respondents to get deeper explanation about their perspective of organizational commitment. Based on the result, researcher found that younger generations have lower affective, normative and continuance commitment compared to older generation. Companies need to consider about the distinction of characteristic, working style, communication and leadership style between generation X and Y in order to optimize their performance.

Keywords: generation gap, affective commitment, continuance commitment, normative commitment

1. INTRODUCTION

Getting commitment and retaining employees, especially youth, has become one of challenging parts that should be faced by companies. Turnover is one of the trending topics in any organizations. Decreasing of productivity, difficulty of maintaining talented employees, increasing of labor and operational cost are some impacts of high turnover. If employees move to another company, there are direct and indirect cost, such as replacement, transition, rehiring cost, reducing of performance level, should be considered. (Nizam, Nur, & Sarah, 2016; Yi, 2013)

Based on research held by Jobplanet.id on 2017 over 88.900 employees in Indonesia, only 9.5% generation Y, called millenial, can be survive in a company for 5 years or more, 76.7% millennial employees stay 1 – 2 years in a company before they move to another organizations. Millennial employees prefer to learn new knowledges and experiences so they do not hesitate to move when they cannot get new challenge in that organization. On the other hand, this research
found that 42.5% of X generation employees work in an organization for more than 5 years and only 10% of them those move before 1 year working period. (www.Liputan 6.com).

Millennial employees are ones who born between 1980 – 1999 while generation X are those who born between 1965 – 1979 (Yigit & Aksay, 2015). Generation Y, known as millennial, will comprise 75% of workforce in the next few years. Generation Y workers known as least committed to stay with the same company. Organizations must find strategic plan to retain their employees. (Raukko, 2009; Yi, 2013)

2. LITERATURE REVIEW

Generation X

Generation X refer to people who born at 1965 – 1979 and is defined by economic uncertainty, high unemployment, downsizing inflation and inflation life experience. Many generation X are the children of compulsive workers and impact to their attitude and values. X generation has an ability to learn new knowledge, adaptable, high motivation in workplace, independent, love a workplace that has same value as their value, respect and loyal to supervisors and work to live. (Becton, Walker, & Jones-Farmer, 2014; Brunetto, Professor in HRM, Farr-Wharton, & Shacklock BEc, 2009; Dole et al., 1945; Nurizki & Respati, n.d.)

Generation Y

Generation Y, or known as millennial generation, was born at 1980 – 1999. Millennials are the first “high-tech” generation, life in digital era, focus on change using technology, already using cell phones, computers, and other electronic devices. They are the most racially, having strong desire for meaningful work, holding lifelong learning with creative method, need direct performance appraisal, love to share their innovative idea, measure their own success by the meaningfulness of work. Millennials are respect diversity, energetic, prefer work in a team and using social media as their communication style. (Avianti & Lindawati Kartika, 2017; Becton et al., 2014; Dole et al., 1945; Krajcsák, Jónás, & Finna, 2014; Yi, 2013)

Organizational Commitment

Organizational commitment is an important variable to study in organizations. Organizational commitment, developed by Meyer and Allen, can be interpreted as psychological stated that characterizes employee’s relationship with their organization and influence employee’s decision to stay or discontinue membership in that organization. (Albdour & Altarawneh, 2014; Krajcsák et al., 2014; Mahoney, 2015; Nguyen, Mai, & Nguyen, 2014; Suma & Lesha, 2013; Yi, 2013). Organizational commitment identified 3 components as follows:

Affective commitment

Strong emotional attachment to the organization and desire to continue their membership is the meaning of affective commitment.
Continuance commitment

Continuance commitment means the tendency of employees to stay relative to perceived cost associates with leaving the organization.

Normative commitment

Normative commitment represents a perceived obligation to remain in an organization. Employees are going to stay in an organization because they feel they ought to do so.

3. METHODOLOGY

Mixed method was used in this research. The population of this research are generation X and Y employees. Questionnaires of organizational commitment, adapted from Meyer and Allen theory, were delivered to 408 employees. Independent t – test was used to analyze the generational gap of organizational commitment. Researcher also interviewed representative respondents to get deeper perspective of organizational commitment from each generation.

4. RESULT AND DISCUSSION

<table>
<thead>
<tr>
<th>Table 1. Demographic Profile</th>
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<tbody>
<tr>
<td>Aspect</td>
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<tr>
<td>Gender</td>
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<td>Man</td>
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<td>Marriage status</td>
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<td>Educational background</td>
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<tr>
<td>Normative</td>
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</tbody>
</table>

### Affective Commitment

Based on the result, we can see there is a significant difference of affective commitment between X and Y generation (t = 4.985, df = 406, p = 0.00). Generation X has higher (mean = 3.98, SD = 0.655) affective commitment compare with generation Y (mean = 3.61, SD = 0.636). Generation X has higher level of emotional attachment with their organization. Combined with interview result, researcher found that Generation X feel satisfy and has good relationship with their supervisor and subordinate. They can trust, respect and share any information. Although generation X has higher affective commitment than generation Y, it does not mean that generation Y cannot built a good relationship with supervisor or subordinate. After interview some representative millennial respondents, researcher found that distinction of communication, leadership and working style influence millennials’ affective commitment. As we know that millennial generation is a digital generation who use technology in their life. They use social media to share their idea or opinion while in the other hand not so many generation X consider about it. Sometimes different perception of technology use among X and Y generations make some conflict or misunderstanding in the workplace. Millennial employees express what they think and feel directly and frequently ask for organizational justices. The characteristic of millennial, for example creative, openminded, innovative, flexible, sometimes also reputed as a struggle by older generation. Some companies do not give enough opportunity and appropriate working style for millennial to explore their idea. Companies must comprehend the difference characteristic of each generations, provide favorable facilities in the workplace, create any events that can increase personal relationship and the unity among employees as found by previous studies. (Brunetto et al., 2009; Cañizares & García, 2012; Kristanto, 2015; Naim & Lenka, 2018; Shore & Wayne, 1993; Shuck & Reio, 2013)

### Continuance Commitment

Generation X still has significant difference in continuance commitment compare with generation Y (t = 4.369, df = 406, p = 0.00). In this component, generation X (mean = 3.41, SD = 0.78) has higher score of continuance commitment than generation Y (mean = 2.99, SD = 0.86). It means that generation X will stay longer in an organization because they calculate the cost had to pay if they leave. As we can see on the demographic profile, 97% of the generation X respondents have been marriage. Based on interview result, most of the generation X consider about their family. There are many financial expenditures, for example household needs, children’s educational needs or other daily needs, must be fulfilled every month. They must manage their finance well. There is a fear of inability to find new job as good as their current job
if they discontinue this job. They also said the requirement of specific age in any job vacancies often make them scared. Different from generation Y that mostly has no as many things as generation X should be certified, generation Y can easily decide to move if there is any possibility. This result of this research is supported by previous researchers such as Mahoney,(2015) and Naim & Lenka, (2018)

**Normative Commitment**

In normative commitment component, there is a significant difference between Generation X and Y (t = 4.063, df = 406, p = 0.00). In this component, generation X (mean = 3.42, SD = 0.72) still has higher score than generation Y (mean = 3.07, SD = 0.76). Generation X want to stay longer in an organization because they perceive they ought to do so. They feel have moral demands to keep working and be a loyal employee there. Generation X frequently feeling guilty if they leave a company that has been developed their career for years. In the other side, generation Y think that they have big chance to move to other companies whenever they want to. According to generation Y, they do not have to hesitate to switch their job if they feel happy to do it. Millennials prefer informal or loose bureaucracy in the workplace so there is no big gap. This condition makes them think that if they move to another companies, it is not a big deal. The meaningfulness job is more important for generation Y. (Chrisdiana, n.d.; Yigit & Aksay, 2015)

5. **CONCLUSION AND RECOMMENDATION**

The result of this research illustrated the generational gap on organizational commitment where generation X has higher organizational commitment than generation Y. Based on the quantitative and qualitative analysis, researcher suggest employees, both generation X and generation Y, should consider about each unique characteristic and respect each other. Companies also must be aware and learn about what their employees need in order to retain their human capital. Provide comfort working environment, create any events to gather employees, implement organizational justice, adjust communication and leadership style, give fair opportunity for employee development are needed. The increasing of productivity can be achieved if all members in an organization have high sense of belonging and commit to construct their organization.

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Analyzing Customer Lifetime Value Based on Frequent Flyer Member Transaction: The Case of Indonesian Airways

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Abstract

Frequent flyer program is a tool for airline especially full-service airline to gain customer loyalty with given special privileges for their member. As loyal customer created, the repetitive purchase behavior will also create. Frequent flyer program has several tier statuses that differentiate and segmented member with their loyalty to the airline. Indonesian Airways has Indonesian Frequent Flyer as their frequent flyer program that offer special benefits and privileges based on the tier level that member has. This research will calculate the future value of each Indonesian Frequent Flyer member Gold and Platinum as the top tier of Indonesian Frequent Flyer that reflected in Customer Lifetime Value (CLV). Calculation will be conducted for each Indonesian Airways compartment. The analysis will be conducted to assess whether top tier of Indonesian Frequent Flyer also will give top future value to Indonesian Airways. The analysis show that the tier of Indonesian Frequent Flyer is not fully reflected the Customer Lifetime Value for each member in those tiers.

Keywords: frequent flyer program, indonesian frequent flyer, tier status, airline ticket, customer lifetimevalue

1. INTRODUCTION

In the past few decades, relationship marketing and customer relationship management have emerged as specific priorities for marketing academics and managers (Palmatier, 2008). Relationship marketing is about building lifelong relationship between firm and customer. This become important since relationship marketing will bring customer retention to the organization. The important of retaining the relationship with the customer is important because acquiring a new customer is anywhere from five to twenty five times more expensive than retaining an existing one. This make sense since organization doesn’t have to spend time and resource going
out and finding a new customer (Gallo, 2014). The other valuable things that customer retention bring to organization is the fact that increasing customer retention rates by 5% also will increase profits by 25% to 95% (Reichheld, 2001).

The relationship marketing will be significant influenced by three components of relationship quality: satisfaction, commitment and trust (Hennig-Thurau et al. 2002). High relationship quality means high satisfaction, commitment and trust from their customer into the product or service that firm’s made. Otherwise, low relationship quality means low satisfaction, commitment and trust. The variation level of relationship quality is not only can happened from same customer with different product or service but also can happened in same product or service but in different individual or groups of customer.

In 7P’s of marketing concept, there are price and product elements. This definition described that the marketing is a process of exchange between customer and seller. Customer gives something to the seller as an impact of product or services that seller gives to the customer. This related to the customer value. Study that made by Butz & Goodstein (1996) reveal that customer will make evaluation for every products (or service) that they received from the seller.

Several companies today especially with the high innovative service area already acknowledge the vary of customer value since they understand that different groups of customer vary widely in their behavior, desires and responsiveness to marketing. The grouping made based on their profitability. With this category, company can put an effort only to make marketing to a good category, tries to increase profitability of bad category into good category and discourage customer in the ugly category (Brooks, 1999).

The enterprise realize that the need to understanding their customer at the different level of profitability and adjusting their service level based on those difference is more critical that has been previously held. The Customer Pyramid is a tool for the enterprise to see the difference of customer profitability and use it in order to increase the profitability. With Customer Pyramid, company can make a link between their existing service quality and customer profitability in order to review and allocate those service to the appropriate customer profitability level.

Zaeithaml (2001) divide Customer Pyramid framework into four level. The highest level is the Platinum Tier which contains highest customer profitability, the second level is Gold tier which contains all customer with the profitability not as high as Platinum tier, below Gold there is Iron Tier which contains all customer with high volume needed to utilize the firm’s capacity but not substantial enough for special treatment. The lowest tier is the Lead Tier that consist all customer that are costing money to the company. This because the low profitability that they have. Many companied make an interpretation for Customer Pyramid framework based on the database and analytics that they have. In airline industry, Customer Pyramid framework reflected in the Frequent Flyer Program.

Indonesian Airways as flag carrier of Indonesia has Indonesian Frequent Flyer as their frequent flyer program. Indonesian Frequent Flyer implement both the relationship marketing and the Customer Pyramid framework. This can be seen with the special benefits and privileges that they give to each level of Indonesian Frequent Flyer tier. Currently, Indonesian Airways use the amount of flights (known as frequency) or accumulated distance (known as tier miles) to determine the tier of each Indonesian Frequent Flyer member has. This automatically indicates how company see the value of Indonesian Frequent Flyer member.

This study will add another perspective to see the value of Indonesian Frequent Flyer member. Customer Lifetime Value will be used to calculate the future value of each Indonesian Frequent Flyer member. Analysis to the Indonesian Frequent Flyer tier that member has also will be done
in order to assess whether the tier level also consistent with the value that member has. This means the higher tier that member has, the higher lifetime value that they bring. The calculation will only be done for Indonesian Frequent Flyer Gold and Platinum as the top two Indonesian Frequent Flyer tier level and considered as high value tier for Indonesian Airways. This is indicated with the Elite and Elite Plus level of SkyTeam airline alliance that give to them.

2. LITERATURE REVIEW

The American Marketing Association’s definition of marketing, reconsidered in 2004, indicates that “marketing is an organizational function and a set of processes for creating, communicating, and delivering value to customers and for managing customer relationships in ways that benefit the organization and its stakeholders”. Thus, the overall definition of marketing identifies the process of managing relationships as one of its key charters, parallel to more traditional marketing-mix factors (Palmatier, 2008).

An analysis of some of the most prevalent definitions suggest that three key aspects constitute relationship marketing (Gronroos 1997; Sheth and Parvatyar 2000), which provides a summary of common relationship marketing definitions, makes clear. Those three key aspect are engagement activities, target or scope of relationship marketing and locus of benefits derived from relationship marketing activities.

Integrating these three aspects results in the following definition: Relationship marketing (RM) is the process of identifying, developing, maintaining, and terminating relational exchanges with the purpose of enhancing performance.

Zeithaml, et al (2001) view, virtually all firms already aware that there is a different of profitability from their customer. The highest proportion of their sales or profit comes from minority of their customers. This facts has often been called the “80/20 rule”. This rule means that eighty percent of sales or profit of company comes from twenty percent of customer.

The “80/20” two-tier scheme only divide customer in two segments and assume that consumer within each group are similar each other. In this two tier analysis, Zeithaml, et al (2001) conducted and in the company strategy that distinguish only between two groups make customer in large group are indistinguishable from each other. This will mask the difference in demographics, perceptions and expectations of service quality, driver of new business, and the profitability impact of improving service quality.

Zeithaml, et al (2001) illustrate the framework that called the Customer Pyramid that contains (for purpose of illustration) four level of customer tiers. The tiers are as follows:

- **The Platinum Tier.** This is the highest tier that consist of company’s most profitable customer. Typical of this customer are heavy users of the product, not overly price sensitive, willing to invest in and try new offerings, and are committed to the firm.

- **The Gold Tier.** This is the second highest tier of Customer Pyramid. The customer in Gold Tier differ from the Platinum Tier since they have a profitability not as high as Platinum Tier. This because the customer want price discount that make limitation of margins. Even they are heavy user of the product, they are not be as loyal to the firm.

- **The Iron Tier.** Iron tier is the third level in Customer Pyramid. Iron tier contains customer that provide the volume needed to utilize the firm’s capacity. But they have spending levels, loyalty and profitability that not substantial enough for special treatment.
• The Lead Tier. Lead tier is the lowest level tier. This contains the customer that are costing the company money. They request more consideration that they are expected given their spending and profitability.

![The Customer Pyramid](image)

Figure 1. The Customer Pyramid

One of the most lucrative and evident investment in marketing is loyalty program (McCall, 2015; Reinartz, 2005). The purpose of companies design loyalty program is to reduce cost. This can be done because with loyalty program companies able to flexibly segmenting members within the program through the tiers. The program performance has a significant influenced by this concept (McCall & Voorhees, 2010; Tanford & Malek, 2015; Quiqno & Zhang, 2016). Companies treat customer differently based on their tier level in order to maximize profitability and loyalty. This because they realize not all customer are equal (Dreze & Nunes, 2009; Tanford & Malek, 2015). In airline, loyalty program also known as frequent flyer program.

First frequent flyer program was launched in May 1981 with American Airlines become first airline that introduce mileage program, during the scramble for competitive advantage following the industry's deregulation (Whinship, 2011). For more than 30 years, there are so many improvements that done in airline frequent flyer program. De Boer and Gudmundsson (2012) categorized several phase of frequent flyer program improvement in all over the world for the past 30 years:

Phase 1: the early years - start of the legacy programs

The early years of legacy program started when American Airlines (AA) was launched first time FFPs. The concept of the legacy program was simple: reward high-frequency customers by giving them a free ticket after they reach a certain threshold of travel. Tier has also introduced in 1982 that has a qualification and aimed to tight their loyalty customer.
Phase 2: moving from legacy to advanced programs

Advanced program was marked by switching concept of the mileage redemption to award seat. A new way to price rewards was introduced when the price of an award ticket was no longer determined by a fixed reward grid, but by the going price of the desired flight. Different approaches exist to set the level of miles required, but some programs use a straight conversion from dollar value (e.g. the bid price for the flight) to miles while others have optimization algorithms in place.

Phase 3: autonomous next generation programs

Harris (2000) found that given the value of the programs, “FFPs should be treated as separate business units and readied for partial spinoffs, thereby enhancing airline valuations”. These autonomous next-generation programs (NGPs) are defined as commercial entities operating at arm’s length from the airline, with the objective of generating profits. They are different from the advanced stage in three key areas: the business model, the company structure and the target customer. Member analytics allows programs to assign the right cost to a member, meaning that some programs will alter the member value proposition depending on a variety of metrics, including the member tier or some form of lifetime value indicator (de Boer, 2018).

The Customer Lifetime Value is the present value of all future profits that generated from a customer. The common approach that can be done is making discounted cash flow for a period that we assumed based on assumption of how long the customer will be with a company ((Berger & Nasr, 1998; Blattberg et al., 2001; Jain & Singh, 2002). This can be calculated with following calculation:

\[ CLV = \sum_{t=1}^{n} \frac{m_t}{(1 + i)^t} \]

Where \( m_t \) is the margin or contribution for each customer, \( t \) is the given time period (e.g., a year) for those margin or contribution, \( i \) is the discount rate, and \( n \) is the period over which the customer is assumed to remain active.

The formulation above will work with assumption that customer stays for \( n \) periods with a firm with certainty. There is a probability in general for a customer to switch or defect from the firm in any time period. Dwyer (1997) simplify the analysis only for two customer states: active or inactive. Therefore, the equation for Customer Lifetime Value is modified as:

\[ CLV = \sum_{t=1}^{n} \frac{m_t \prod_{j=1}^{t} r_j}{(1 + i)^t} \]

Where \( r_j \) is the probability of customer retention in certain period that reflected in \( j \), while \( \prod_{j=1}^{t} r_j \) is the probability that a customer still an active member of a form at the end of period.

Equation above that seems simple actually need data intensive that required retention rates and also margin periods. It also leaves \( n \) as the length of projection period that need to be
determined subjectively or by industry norms. Gupta and Lehman (2003) modify the above formula with several assumption: margin are constant over time, constant retention and length of projection is infinite. With those assumption, we can re-write the lifetime value of a customer as:

\[
CLV = \sum_{t=1}^{\infty} \frac{m \cdot r^t}{(1+i)^t} = m \left( \frac{r}{1 - i} \right)
\]

Based on above formula, the lifetime value of customer will be calculated with margin \((m)\) multiplied by a factor \(\frac{r}{1 + i - r}\). This factor called “margin multiple”. The margin multiple is low when the discount rate is high (i.e. for risky company) and customer retention is low. Conversely, this margin multiple is high for the low risk companies with high customer rate.

3. RESULT AND DISCUSSION

Margin, Retention Rate and Discounted Rate

From Indonesian Airways annual report in 2017, it is stated that scheduled airline services revenue are USD 3,401,980,804 and the flight operations expenses are USD 2,478,025,975. Based on this number, the margin of flights in Indonesian Airways is 27.2%. The amount of margin will be calculated from this percentage and multiply it with the average ticket revenue that each Indonesian Frequent Flyer member has. Since the margin percentage is calculated from revenue and expenses in all year 2017, all the elements of Customer Lifetime Value such as retention rate and transaction data will also calculated in full year 2017 period.

Since there is a limitation in this research that the period that will be used only from January until December 2017, these will be become the start and end of period. To calculate retention rate. From Indonesian Frequent Flyer data, the member at the end of period (December 2017) are 1,716,786 member, amount of member at the start of period (January 2017) are 1,319,258 member. The accumulation new member from January until December 2017 is 433,246. Based on these data, the retention rate that Indonesian Frequent Flyer has is 97%. Table 1 show the historical and projection of Indonesia Inflation Rate.
### Table 1. Historical and Projection of Indonesia Inflation Rate

<table>
<thead>
<tr>
<th>Period</th>
<th>Actual</th>
<th>Forecast</th>
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<tbody>
<tr>
<td>Jan-17</td>
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<tr>
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<tr>
<td>Apr-17</td>
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<tr>
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<tr>
<td>AVERAGE</td>
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<td>3.31%</td>
</tr>
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</table>
From the projection inflation rate above, the average of inflation rate will be 3.31% for all year 2019. This will be reference to become the discounted rate to calculate Customer Lifetime Value.

With the retention rate and discounted rate has been calculated, we can calculate the margin multiple that needed to calculate Customer Lifetime Value. However, we still need calculate the margin for each member that will determine and differentiate the value of each Indonesian Frequent Flyer member. The margin will be calculated based on total transaction that each Indonesian Frequent Flyer did in all year 2017 and also the average spend of each Indonesian Frequent Flyer.

Customer Lifetime Value Result

The Customer Lifetime Value are calculated for each Indonesian Frequent Flyer Gold and Platinum member. Since there are total 103,171 member who make transaction in full year 2017 and the Customer Lifetime Value will be calculated for each of those member. Since it will be possible to show all the member, this paper only shows top twenty member who has highest Customer Lifetime Value. This to bring early indication whether Indonesian Frequent Flyer Gold and Platinum has appropriate value composition. It means Indonesian Frequent Flyer Platinum member has higher value compare with Indonesian Frequent Flyer Gold member.

Customer Lifetime Value in Economy Class

Below are the top twenty data of Customer Lifetime Value based on Total Transaction for each member in Economy Class:

Table 2. CLV in Economy Class Based on Total Transaction

<table>
<thead>
<tr>
<th>Indonesian Frequent Flyer Number</th>
<th>Tier</th>
<th>CLV (based on Total Transaction)</th>
</tr>
</thead>
<tbody>
<tr>
<td>330321xxx</td>
<td>PLATINUM</td>
<td>2,931,403,913.37</td>
</tr>
<tr>
<td>331540xxx</td>
<td>PLATINUM</td>
<td>2,724,863,185.58</td>
</tr>
<tr>
<td>330321xxx</td>
<td>PLATINUM</td>
<td>2,610,859,842.22</td>
</tr>
<tr>
<td>331540xxx</td>
<td>PLATINUM</td>
<td>2,244,468,921.26</td>
</tr>
<tr>
<td>324747xxx</td>
<td>PLATINUM</td>
<td>1,765,149,358.55</td>
</tr>
<tr>
<td>332230xxx</td>
<td>PLATINUM</td>
<td>1,688,251,744.76</td>
</tr>
<tr>
<td>327747xxx</td>
<td>PLATINUM</td>
<td>1,678,482,395.89</td>
</tr>
<tr>
<td>100389xxx</td>
<td>PLATINUM</td>
<td>1,672,326,940.09</td>
</tr>
</tbody>
</table>
From the data above, all data in top twenty Customer Lifetime Value is Indonesian Frequent Flyer Platinum member. In all data that consist of 75,469 member that did the transaction, Indonesian Frequent Flyer Platinum has higher average Customer Lifetime Value compare with Indonesian Frequent Flyer Gold member. The average Customer Lifetime Value for Indonesian Frequent Flyer Platinum are IDR 233,070,134 while the average Customer Lifetime Value for Indonesian Frequent Flyer Gold are IDR 149,009,146.

Below are the top twenty data of Customer Lifetime Value based on Average Transaction for each member in Economy Class:

**Table 3.** CLV in Economy Class Based on Average Transaction

<table>
<thead>
<tr>
<th>Indonesian Frequent Flyer Number</th>
<th>Tier</th>
<th>CLV (based on Average Transaction)</th>
</tr>
</thead>
<tbody>
<tr>
<td>121837xxx</td>
<td>PLATINUM</td>
<td>59,681,981.52</td>
</tr>
<tr>
<td>324886xxx</td>
<td>GOLD</td>
<td>55,785,534.55</td>
</tr>
<tr>
<td>221407xxx</td>
<td>PLATINUM</td>
<td>54,787,832.89</td>
</tr>
<tr>
<td>125099xxx</td>
<td>PLATINUM</td>
<td>53,345,425.53</td>
</tr>
<tr>
<td>722798xxx</td>
<td>PLATINUM</td>
<td>53,299,726.73</td>
</tr>
</tbody>
</table>
As seen in the Table 3 above, different from Customer Lifetime Value with the total revenue, fifty percent of top twenty with the highest Customer Lifetime Value is Indonesian Frequent Flyer Gold member. Customer Lifetime Value of Indonesian Frequent Flyer Gold in all data that consist of 75,469 member also higher than Indonesian Frequent Flyer Platinum. The average Customer Lifetime Value for Indonesian Frequent Flyer Gold are IDR 4,962,981 while average Customer Lifetime Value for Indonesian Frequent Flyer Platinum are IDR 4,953,095.

Customer Lifetime Value in Business Class

Below are the top twenty data of Customer Lifetime Value based on Total Transaction for each member in Business Class:

Table 4. CLV in Business Class Based on Total Transaction

<table>
<thead>
<tr>
<th>Indonesian Frequent Flyer Number</th>
<th>TIER</th>
<th>CLV (based on Total Transaction)</th>
</tr>
</thead>
<tbody>
<tr>
<td>323035xxx</td>
<td>PLATINUM</td>
<td>2,691,619,202.09</td>
</tr>
<tr>
<td>322302xxx</td>
<td>PLATINUM</td>
<td>2,661,154,494.88</td>
</tr>
</tbody>
</table>
Same with Customer Lifetime Value of Indonesian Frequent Flyer Gold and Platinum member in Economy Class based on total transaction, all of the top twenty Indonesian Frequent Flyer member with highest Customer Lifetime Value contains with Indonesian Frequent Flyer Platinum member. In all 27,066 members, the average Customer Lifetime Value of Indonesian Frequent Flyer Platinum are IDR 217,742,961 while the Customer Lifetime Value of Indonesian Frequent Flyer Gold are IDR 120,534,033.

Below are the top twenty data of Customer Lifetime Value based on Average Transaction for each member in Business Class:

**Table 5. CLV in Business Class Based on Average Transaction**

<table>
<thead>
<tr>
<th>Indonesian Frequent Flyer Number</th>
<th>Tier</th>
<th>CLV (based on Average Transaction)</th>
</tr>
</thead>
<tbody>
<tr>
<td>836209xxx</td>
<td>GOLD</td>
<td>250,663,444.15</td>
</tr>
</tbody>
</table>

| 323869xxx                        | PLATINUM | 2,239,407,396.52                   |
| 323916xxx                        | PLATINUM | 2,073,446,692.36                   |
| 725915xxx                        | PLATINUM | 2,070,980,058.16                   |
| 322361xxx                        | PLATINUM | 1,993,505,064.78                   |
| 325172xxx                        | PLATINUM | 1,985,589,765.58                   |
| 320073xxx                        | PLATINUM | 1,964,746,974.17                   |
| 324251xxx                        | PLATINUM | 1,899,883,941.47                   |
| 831975xxx                        | PLATINUM | 1,891,820,704.20                   |
| 324418xxx                        | PLATINUM | 1,851,698,946.51                   |
| 325614xxx                        | PLATINUM | 1,786,733,579.25                   |
| 306738xxx                        | PLATINUM | 1,781,512,519.06                   |
| 126045xxx                        | PLATINUM | 1,774,076,972.36                   |
| 125099xxx                        | PLATINUM | 1,769,896,541.79                   |
| 727898xxx                        | PLATINUM | 1,762,614,031.44                   |
| 322695xxx                        | PLATINUM | 1,750,557,911.09                   |
| 227208xxx                        | PLATINUM | 1,733,978,009.83                   |
| 221568xxx                        | PLATINUM | 1,705,270,541.98                   |
| 320657xxx                        | PLATINUM | 1,664,630,300.64                   |
Customer Lifetime Value calculation based on average transaction margin in Business Class give more surprising result. As seen in the Table 5 above, the percentage of Indonesian Frequent Flyer Gold on the top twenty Customer Lifetime Value reach seventy five percent compare with amount of Indonesian Frequent Flyer Platinum that only consist of twenty five percent. Even Indonesian Frequent Flyer member that have the highest value is Indonesian Frequent Flyer Gold. Customer Lifetime Value of Indonesian Frequent Flyer Gold in all data that consist of 27,066 member also higher than Indonesian Frequent Flyer Platinum. The average Customer Lifetime Value for Indonesian Frequent Flyer Gold are IDR 17,227,811 while average Customer Lifetime Value for Indonesian Frequent Flyer Platinum are IDR 15,193,468. The gap for average Customer Lifetime Value is bigger than calculation in Economy Class.

**Customer Lifetime Value in First Class**

Below are the top twenty data of Customer Lifetime Value based on Total Transaction for each member in First Class:
### Table 6. CLV in First Class Based on Total Transaction

<table>
<thead>
<tr>
<th>Indonesian Frequent Flyer Number</th>
<th>Tier</th>
<th>CLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>224445xxx</td>
<td>PLATINUM</td>
<td>1,771,396,838.17</td>
</tr>
<tr>
<td>831352xxx</td>
<td>PLATINUM</td>
<td>1,607,293,977.76</td>
</tr>
<tr>
<td>836862xxx</td>
<td>PLATINUM</td>
<td>1,311,594,996.03</td>
</tr>
<tr>
<td>224032xxx</td>
<td>PLATINUM</td>
<td>1,199,162,113.02</td>
</tr>
<tr>
<td>224281xxx</td>
<td>PLATINUM</td>
<td>1,199,162,113.02</td>
</tr>
<tr>
<td>126947xxx</td>
<td>PLATINUM</td>
<td>1,089,145,641.07</td>
</tr>
<tr>
<td>187663xxx</td>
<td>PLATINUM</td>
<td>938,450,179.06</td>
</tr>
<tr>
<td>321394xxx</td>
<td>PLATINUM</td>
<td>930,907,612.31</td>
</tr>
<tr>
<td>327850xxx</td>
<td>PLATINUM</td>
<td>918,733,471.72</td>
</tr>
<tr>
<td>126587xxx</td>
<td>PLATINUM</td>
<td>779,705,062.04</td>
</tr>
<tr>
<td>103107xxx</td>
<td>PLATINUM</td>
<td>770,451,039.48</td>
</tr>
<tr>
<td>323098xxx</td>
<td>PLATINUM</td>
<td>769,259,858.97</td>
</tr>
<tr>
<td>126587xxx</td>
<td>PLATINUM</td>
<td>764,086,000.72</td>
</tr>
<tr>
<td>314301xxx</td>
<td>PLATINUM</td>
<td>750,015,157.90</td>
</tr>
<tr>
<td>720245xxx</td>
<td>PLATINUM</td>
<td>750,015,157.90</td>
</tr>
<tr>
<td>341244xxx</td>
<td>GOLD</td>
<td>722,491,932.32</td>
</tr>
<tr>
<td>126909xxx</td>
<td>PLATINUM</td>
<td>691,265,420.25</td>
</tr>
<tr>
<td>321361xxx</td>
<td>PLATINUM</td>
<td>684,469,525.98</td>
</tr>
<tr>
<td>205514xxx</td>
<td>PLATINUM</td>
<td>612,488,981.15</td>
</tr>
<tr>
<td>724738xxx</td>
<td>GOLD</td>
<td>612,488,981.15</td>
</tr>
<tr>
<td>314301xxx</td>
<td>GOLD</td>
<td>612,412,309.28</td>
</tr>
</tbody>
</table>

Different with the data in Economy Class and Business Class, in top twenty of Customer Lifetime Value based on total transaction there are three Indonesian Frequent Flyer Gold. This means Indonesian Frequent Flyer Gold has 15% proportion for the top twenty and the rest 85% contains Indonesian Frequent Flyer Platinum. The average from all 788 Indonesian Frequent Flyer member that already make transaction, Indonesian Frequent Flyer Gold has an average
IDR 170,993,762 of Customer Lifetime Value while Indonesian Frequent Flyer Platinum has an average IDR 268,049,451 of Customer Lifetime Value.

Below are the top twenty data of Customer Lifetime Value based on Average Transaction for each member in First Class:

**Table 7. CLV in First Class Based on Average Transaction**

<table>
<thead>
<tr>
<th>Garuda Miles Number</th>
<th>Tier</th>
<th>CLV (based on Average Transaction)</th>
</tr>
</thead>
<tbody>
<tr>
<td>220195xxx</td>
<td>PLATINUM</td>
<td>354,815,989.05</td>
</tr>
<tr>
<td>320050xxx</td>
<td>PLATINUM</td>
<td>354,667,027.81</td>
</tr>
<tr>
<td>114023xxx</td>
<td>GOLD</td>
<td>348,333,966.41</td>
</tr>
<tr>
<td>310391xxx</td>
<td>PLATINUM</td>
<td>336,870,643.45</td>
</tr>
<tr>
<td>724162xxx</td>
<td>PLATINUM</td>
<td>336,870,643.45</td>
</tr>
<tr>
<td>327850xxx</td>
<td>PLATINUM</td>
<td>306,244,490.57</td>
</tr>
<tr>
<td>724738xxx</td>
<td>GOLD</td>
<td>306,244,490.57</td>
</tr>
<tr>
<td>205514xxx</td>
<td>PLATINUM</td>
<td>306,244,490.57</td>
</tr>
<tr>
<td>327019xxx</td>
<td>PLATINUM</td>
<td>306,207,375.42</td>
</tr>
<tr>
<td>224315xxx</td>
<td>GOLD</td>
<td>306,206,154.64</td>
</tr>
<tr>
<td>126680xxx</td>
<td>GOLD</td>
<td>306,206,154.64</td>
</tr>
<tr>
<td>103440xxx</td>
<td>PLATINUM</td>
<td>306,206,115.12</td>
</tr>
<tr>
<td>725204xxx</td>
<td>GOLD</td>
<td>306,206,115.12</td>
</tr>
<tr>
<td>224281xxx</td>
<td>PLATINUM</td>
<td>299,790,528.25</td>
</tr>
<tr>
<td>224032xxx</td>
<td>PLATINUM</td>
<td>299,790,528.25</td>
</tr>
<tr>
<td>175657xxx</td>
<td>GOLD</td>
<td>293,374,901.87</td>
</tr>
<tr>
<td>725706xxx</td>
<td>GOLD</td>
<td>293,374,901.87</td>
</tr>
<tr>
<td>223782xxx</td>
<td>PLATINUM</td>
<td>267,989,530.46</td>
</tr>
<tr>
<td>220317xxx</td>
<td>PLATINUM</td>
<td>267,989,530.46</td>
</tr>
<tr>
<td>197091xxx</td>
<td>PLATINUM</td>
<td>266,222,002.31</td>
</tr>
</tbody>
</table>

Table 7 show that in the top twenty of Customer Lifetime Value in First Class based on average transaction mostly contains Indonesian Frequent Flyer Platinum. Indonesian Frequent Flyer Platinum has sixty five percent of the amount composition while Indonesian Frequent
Flyer Gold has thirty five percent. This composition is the most closer to the ideal composition based on Customer Pyramid concept compare with the composition of CLV based on average transaction in Economy Class and Business Class. Customer Lifetime Value of Indonesian Frequent Flyer Platinum in all data that consist of 636 member also higher than Indonesian Frequent Flyer Gold. The average Customer Lifetime Value for Indonesian Frequent Flyer Platinum are IDR 119,738,845 while average Customer Lifetime Value for Indonesian Frequent Flyer Gold are IDR 100,551,113.

4. CONCLUSION AND RECOMMENDATION

The Customer Lifetime Value for Economy Class, Business Class and First Class based on total transaction giving the result that already expected. This means that Customer Lifetime Value of Platinum member is higher than Customer Lifetime Value of Gold Member. This can be concluded since the mechanism of margin calculation is from total transaction that Indonesian Frequent Flyer Platinum and Gold done in full year of 2017 period.

From Indonesian Frequent Flyer policy, Indonesian Frequent Flyer member need to accumulated 50 (fifty) eligible flights or 50,000 (fifty thousand) tier miles to reach the Indonesian Frequent Flyer Platinum while they only need 30 (thirty) eligible flights or 30,000 (thirty thousand) of tier miles to reach Indonesian Frequent Flyer Gold. For the maintain qualification, Indonesian Frequent Flyer member need 45 (forty five) eligible flights or 45,000 (forty five thousand) tier miles to maintain Indonesian Frequent Flyer Platinum. This also higher for Indonesian Frequent Flyer Gold where Indonesian Frequent Flyer Gold only need to accumulate 25 (twenty five) eligible flights or 25,000 (twenty five thousand) tier miles to maintain their Indonesian Frequent Flyer Gold membership. Because Indonesian Frequent Flyer Platinum accumulated higher flight activities then it is understandable if Indonesian Frequent Flyer Platinum will accumulated higher total revenue for full year 2017 and given higher Customer Lifetime Value compare with Indonesian Frequent Flyer Gold.

The Customer Lifetime Value based on average spending per transaction given the different result. To give overall picture of the Indonesian Frequent Flyer member Customer Lifetime Value composition, we make the classification data of Customer Lifetime Value and put the amount of Indonesian Frequent Flyer Platinum and Gold member in each of those classification. Appendix A show the classification in Economy Class, Business Class and First Class.

In the Economy Class, Appendix A shows that Indonesian Frequent Flyer Gold has a significant amount of member in each classification even in the highest classification. In the highest classification there are three Indonesian Frequent Flyer Gold compare with four Indonesian Frequent Flyer Platinum. It means that Indonesian Frequent Flyer Gold has a same value with Indonesian Frequent Flyer Platinum. Beside the highest classification, the next three lower classification Indonesian Frequent Flyer Gold has a higher amount of member compare with Indonesian Frequent Flyer Platinum.

This condition means that Indonesian Airways has a mis-treat their customer that reflected in Indonesian Frequent Flyer Gold and Platinum tier. Indonesian Frequent Flyer Gold is not appropriate to have lower advantages with Indonesian Frequent Flyer Platinum since they have same and even higher value compare with the Indonesian Frequent Flyer Platinum. The situation
indicates that Indonesian Airways need to re-look their tier qualification in order to generate the right segmentation which is high Customer Lifetime Value for high Indonesian Frequent Flyer Tier.

For the Business Class, Indonesian Frequent Flyer Gold has a significant amount of member in each data classification. In the highest classification there are one Indonesian Frequent Flyer Gold compare with nothing for Indonesian Frequent Flyer Platinum. The next classification which is value between two hundred and two hundred and fifty million, Indonesian Frequent Flyer Gold has one member and Indonesian Frequent Flyer Platinum also has one member. This is the only classification where the amount of Indonesian Frequent Flyer Platinum can equalize the amount of Indonesian Frequent Flyer Platinum. The rest of classification, Indonesian Frequent Flyer Gold always has bigger amount compare with Indonesian Frequent Flyer Platinum.

This data show that the condition of discrepancy also happened in Business Class transaction and it is even worse than Economy Class. There are no condition where Indonesian Frequent Flyer Platinum as a highest tier of Indonesian Frequent Flyer has a bigger value compare with Indonesian Frequent Flyer Gold. This condition can leads to inappropriate relationship that Indonesian Airways have with their customer. Customer that have high value is given the lower privileges compare with customer with lower value and vice versa. In the long terms, this condition can increase the churn rate of the customer and decrease the revenue of Indonesian Airways.

Finally for the First Class, the shape of data distribution is the closest ideal composition compare with the Customer Lifetime Value in Economy Class and Business Class. This means that amount of Indonesian Frequent Flyer Platinum is bigger than Indonesian Frequent Flyer Gold in the top classification. However, the fact that Indonesian Frequent Flyer Gold has an amount of member in each of top classification show that the value composition is far from the ideal one.

All of this conditions prove that existing tier qualification of Indonesian Frequent Flyer are not give the fully appropriate value composition if the Customer Lifetime Value are calculated from the average spending per transaction. Although the value composition of CLV based on total transaction give the right value composition, the average revenue per transaction method bring the opposition result. Indonesian Airways need to evaluate their qualification in order to ensure the qualification will give appropriate customer segmentation so Indonesian Airways can give appropriate privileges to the appropriate customer segment.

One of the solution that Indonesian Airways management can think of is the add another component beside the accumulation of flights and mileage. Indonesian Airways can add accumulation of spending in the qualification. With the certain value of spending accumulation requirements that higher for higher tier, Indonesian Frequent Flyer member will be ensured that they will give appropriate expected revenue to Indonesian Airways and it will leads to appropriate Customer Lifetime Value composition for each tier.

This research only use one full year data. The research can be developed with the use of wider data and using another CLV calculation method.
REFERENCES


**APPENDIX**

CLV Based on Average Transaction

<table>
<thead>
<tr>
<th>CLV Classification in Economy Class Based on Average Transaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gold</td>
</tr>
<tr>
<td>More than 50 mio</td>
</tr>
<tr>
<td>40 until 50 mio</td>
</tr>
<tr>
<td>30 until 20 mio</td>
</tr>
<tr>
<td>20 until 30 mio</td>
</tr>
<tr>
<td>10 until 20 mio</td>
</tr>
<tr>
<td>under 10 mio</td>
</tr>
</tbody>
</table>
Recruitment in Digital Era, A Study on Job Seekers Perception

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Abstract

The aim of this research is to identify the factors that influence Job-Seeker’s Perception towards Online-Based Application System. This research limitation is according to active job-seekers aging 17-24 years old in President University using the non-probability sampling which is, convenience sampling with total of 150 respondents. The data is gathered by spreading questionnaires to final year students and fresh graduates of President University. This study examines the influence of User-Friendliness, Perceived Efficiency, Information Provided, Fairness Perception, and Internet selection Image towards Job-Seeker’s Perception of Online-Based Application System. The analysis results that Perceived Efficiency, Fairness Perception, and Internet Selection Image have significant influence towards Job-Seeker’s Perception of Online-Based Application System. Meanwhile User-Friendliness and Information Provided has insignificant influence towards Job-Seeker’s Perception of Online-Based Application System.

Keywords: e-recruitment, internet recruitment, online-based recruitment selection, online-based application system, job seekers

1. INTRODUCTION

Recruitment is the Human Resources Management’s primary element; builds the company’s foundation by resulting the qualified human capital. Recruitment is the process of attracting a large number of potentials with high qualifications candidates using several of methods in order to apply the vacant job. A successful recruitment determines the future success of the company itself (Marr, 2007).

In this globalization era, technology and electronic revolution has dominate our daily activities including recruitment and selection activities. Internet has been considered as an important aspect in life, equalizing other necessities for our survival. Moreover, Indonesia is highly influenced by the Internet Technology. People could spend hours just to search
information, seek for entertainments, and even apply for jobs. In recent years, organizations in Indonesia are trying to improve their management practices and adopt new technologies in their HRM practices. There are private and government organizations in Indonesia that already applied online-based recruitment and selection (Purwati, Fransiska, & Paramita, 2013).

The use of Information Technology and Internet for recruitment & selection activities have various advantages. It has been identified the following as the most important reasons of the use of Information Technology as well as Internet for recruitment necessities: access to more candidates; improved ability to target specific audience; cost & time efficiency; absence of third parties; convenience; wide posting distribution; candidate’s quality; decrease of paperwork; ease in managing resumes; and better service. The use of Technology for the purpose of Recruitment and Selection activities is defined as e-recruitment (Kundu, Rattan, & Gahlawat, 2007).

According to a report by Glassdoor (2017), Statista (2016), and CareerArc (2016) it has revealed some statistical data and facts related with e-recruitment, which are:

1. 46% applicants using the online-based application system have not yet communicated with the company recruiting or hiring manager (Glassdoor, 2017).
2. According to CareerArc (2016) statistical data, nearly 2 out of 3 job-seekers admit that there should be improvement of technical adequacy for online-based application system to facilitate two-way communication between recruiters and job-seekers.
3. 61% applicants report that they seek information through the internet as much as possible before making a decision to apply for a job (Glassdoor, 2017).
4. 76% job seekers expect details posted in advance regarding what makes the company an attractive place to work (Glassdoor, 2017).
5. 52% job-seekers admit that they face delays and technical errors during online-based job applying and selection process (CareerArc, 2016).
6. According to CareerArc (2016), statistical data, 65% candidates say they rarely receive appropriate interpersonal treatment from recruiters about their application.
7. According to Glassdoor report on 2014, 69% job seekers are likely to apply to a job if the employer actively manages its employer brand and employment page (e.g., responds to inquiries, updates their profile, shares updates on the culture and work environment).
8. According to statista (2016), nearly 2 in 3 job seekers including employees, say their expectations towards the use of online-based selection service were partially fulfilled.
9. 55% of employers receive complaints from job-seekers as well as feedbacks of dissatisfaction regarding online-based application system and the need of improvement towards online-based application system (CareerArc, 2016).

According to the statistical data and facts above, it can be identified the e-recruitment key issues that include: the job-seeker’s expectations towards the use of online-based application system service were only fulfilled partially; poor two-way communication between recruiter with job-seekers during the online-based job application; there is still lack of information from the related online-based application system which requires job-seekers seek more information from other sources; poor interpersonal treatment; the need of improvements towards online-based application system; difficulties in accessing relevant information about jobs on web-sites (e.g. job descriptions, recruitment process, salary levels, location of the job and travel requirements); and the high expectation towards proper interpersonal treatment and follow-up from recruiter about the status of the job.
In addition, there is a possibility that a “digital divide” will be built between the people that can easily access Information Technology and those who are unable to (Marr, 2007). Especially between developed and the ones that do not deal with such things. According to Technological Acceptance Model, digital divide is defined when job-seekers have difficulties using this media as a source of job vacant, or either because they have very limited or even zero access to the internet or are not comfortable nor familiar with such technology.

Technology Acceptance Model by Venkatesh et al. (in Pavon & Brown, 2010) satated although most of nowadays job-seekers are aware with technology and the Internet, but not many are familiar with the use of online-based application system. Strengthened by Singh & Finn (2007) that nowadays companies are expanding their recruiting sources, some are just a simple Company’s own Career Web-page, but there are also many service businesses that develops and/or provides job portals and co-operates with these companies for recruiting necessities, or also called as professional employment websites (e.g. Jobstreet, Linked In, Jobsdb, Monster.com, and etc) (Singh & Finn, 2007). Additionally, many companies select their candidates using the internet facilities such as online test and online interview. However, these new system of recruitment and selection itself may be difficult to be understood by the job-applicants (Kumar & Priyanka, 2014).

Therefore, referring to the data facts of problems that exist, this study will observe 5 existing variables that are related to the problems and influences the job-seeker’s perception towards the online-based application system: User-friendliness, this measures the ease in finding the job vacancy and usability of the site during the recruitment and selection activities that are reflected through the applicant’s perspectives. Perceived efficiency, whether the process is efficient in terms of cost, time and energy. Information provided, ease in finding the information and understanding about the job. Fairness perception, whether company’s recruiters provide appropriate and the right amount of interpersonal treatment as well as timely information during the recruitment process, in order to provide what job-seekers expectations in regards of fairness treatment. Internet selection image, the candidate’s image or opinion towards the companies that use the technology of Internet for Recruitment and Selection purposes (Tania & Srimannarayana, 2014). According to Singh & Finn (2007), nowadays companies are expanding their recruiting sources, some are just a simple Company’s own Career Web-page, but there are also many service businesses that develops and/or provides job portals and co-operates with these companies for recruiting necessities, or also called as professional employment websites (e.g. Jobstreet, Linked In, Jobsdb, Monster.com, and etc) (Singh & Finn, 2007). Many companies select their candidates using the internet facilities such as online test and online interview. These new system of recruitment and selection itself may be difficult to be understood by the job-applicants (Kumar & Priyanka, 2014). In addition, online-based application system doesn’t stop there, further process of the recruitment and selection itself is online-based, which also lead to issues that are faced by the applicants.

Research Questions

According to the problem identification of the research, the researcher have found some problems explained by six questions below:

1. Does User-Friendliness have significant influence towards job-seeker’s perceptions of online-based application system?
2. Does Perceived Efficiency have significant influence towards job-seeker’s perception of online-based application system?

3. Does Information Provided have significant influence towards job-seeker’s perception of online-based application system?

4. Does Fairness Perception influence have significant influence towards job-seeker’s perception of online-based application system?

5. Does Internet Selection Image have significant influence towards job-seeker’s perception of online-based application system?

6. Is there simultaneous significant influence of User-Friendliness, Perceived Efficiency, Information Provided, Fairness Perception, and Internet Selection Image towards job-seeker’s perception of online-based application system?

The Objectives of the Study

1. To identify whether there is significant influence of User-Friendliness towards job-seeker’s perception of online-based application system.

2. To identify whether there is significant influence of Perceived Efficiency towards job-seeker’s perception of online-based application system.

3. To identify whether there is significant influence of Information Provided towards job-seeker’s perception of online-based application system.

4. To identify whether there is significant influence of Fairness Perception towards job-seeker’s perception of online-based application system.

5. To identify whether there is significant influence of Internet Selection Image towards job-seeker’s perception of online-based application system.

6. To identify whether there is simultaneous significant influence of User-Friendliness, Perceived Efficiency, Information Provided, Fairness Perception, and Internet Selection Image towards job-seeker’s perception of online-based application system.

Scope and Limitation

Scope and limitation are needed to create a relevant and specified research result of particular field of the study. This research scope will discuss about the job-seekers perception of e-recruitment procedure and/or systems, in the scope of User-Friendliness, Perceived Efficiency, Information Provided, Fairness Perception, and Internet Selection Image.

According to OECD (2017), the range of age that actively seek for job opportunities are people from 16-24 years old for the purpose of career development without limiting the job information source. This study used quantitative method that distributes questionnaire to alumni and final year students of President University that are seeking for jobs/internship and also who have experienced and used online-based application system when applying their job.

2. LITERATURE REVIEW

User Friendliness

According to Brahmana and Brahmana (2013), user-friendliness is understood when a jobseeker can easily operate the online job website/portal without facing difficulties, such as ease
in finding the job advertisement (the location of the advertisement), ease in posting resumes and application, ease in access of navigational links within the sites and stability when accessing the web or online-based recruitment and selection activity. Creating an appealing website from the point of view of jobseekers could be increased by ensuring that the online application functions well and easy to be used, and the aesthetic and design of the layout and usability of the advertisement itself. When job seekers are faced with a complex online job application, they will try to avoid the recruitment process and steps.

**Perceived Efficiency**

Another influential feature of e-recruitment is Perceived Efficiency, because it affects the applicant’s perception towards online recruitment and selection (Cober et al. in Tania & Srimannarayana, 2014). Online-based recruitment selection provides efficiency of time and cost that assists employees in finding employment opportunities that saves more time, money, energy and instantly accessible (Karim, Miah, & Asma, 2015).

**Information Provided**

Information provided is described as the communication style where job seekers could gather and understand the information that are already provided from the site itself (Sills, 2014). According to Cober et al. (in Tania & Srimannarayana, 2014), job seekers actively seek organizational and job-related information as how they expect detailed information from what they are looking for. Job Seekers are characterized with high expectations and curiosity; hence they will try to gather as much information as possible. However, Tania and Srimannarayana (2014), stated that in the case of online recruitment and selection, job-seekers have global access to much more information on organizations from multiple sources such as discussion boards and forums. This allows applicants obtain information from peers (prospective applicants) as well as existing employees of the organization and get a more holistic view of the position, job and/or the organization.

The important experiences that contributes towards job seekers are the completeness of information provided by the online-based job application about the company profile including the type of industry and business unit. Regarding the information provision of the job duties of the job being advertised as well as the qualifications of the position, and also the other details related to the job and position as an example; the employment type – whether it is permanent role or temporary role, the placement of the position, organizational objectives of the position, the job functions, salary and benefits, organizational culture, training opportunities, challenging work, and etc. (Kumudha & Saranya, 2015).

Other qualities of the information provided during the recruitment process such as accuracy and relevance perception, information adequacy, the details of description as well as amount of information, informative or not, and usefulness (Uggerslev, Fassina, & Kraichy, 2012). All of the information provided should then be understandable because it affects their decision whether it is the right job for them or not before having to put their time and energy to the application process (Tania & Srimannarayana, 2014).

**Fairness Perception**
Fairness perceptions can affect applicant perception and reaction towards the internet application selection process (Sylva & Mol, 2009). How applicants perceive the process of online-based recruitment and selection is important to be understood, as how the perceptions of procedural justice can influence applicants’ satisfaction towards the online-based recruitment and selection itself (Thielsch, Träumer, & Pytlik, 2012).

The effect of fairness perception is the applicants’ reactions during the very early stage of the selection process. The influence comes from aspects such as transparency of the organization recruitment and selection outcome, job acceptance intention, information transparency on selection criteria before the selection, and interpersonal treatment that is provided (by Lievens De Corte and Brysee in RoyChowdhury & Srimannarayana, 2013).

**Internet Selection Image**

The candidate’s image or opinion towards the companies that use the technology of Internet for recruitment and selection purposes is defined as Internet Selection Image. This variable affects a candidate’s perception and image of companies that use the Internet for applicant selection purposes. (Sinar et al. in Tania & Srimannarayana, 2014). The applicant perception towards the use of internet recruitment and selection purposes through online application system affects their attitude and satisfaction with the online-based systems, which finally reflects the image of companies that use the Internet for applicant recruitment and selection purposes from the applicant’s perception and point of view (Sylva & Mol, 2009). The selection process is the key and opening source of information for candidates about the organizational characteristics which creates the image effects.

There is an age-moderating effect on the Internet Selection Image, thus the perceptions of younger candidates have lesser influence on image of companies using the Internet for selection, comparing to older candidates. In addition, the result from the examination is that several individual characteristics as potential moderators of process reactions towards Internet Selection Image. Prior internet experience and age appeared most promising as moderating influences according to Sinar et al (in Tania & Srimannarayana, 2014).

**3. METHODOLOGY**

*Theoretical Framework*
Hypotheses

H1 : There is a significant influence of User-Friendliness towards Job Seeker’s Perception of Online-Based Application System.
H2 : There is a significant influence of Perceived Efficiency towards Job Seeker’s Perception of Online-Based Application System.
H3 : There is a significant influence of Information Provided towards Job Seeker’s Perception of Online-Based Application System.
H4 : There is a significant influence of Fairness Perception towards Job Seeker’s Perception of Online-Based Application System.
H5 : There is a significant influence of Internet Selection Image towards Job Seeker’s Perception of Online-Based Application System.
H6 : There is simultaneous significant influence of User-Friendliness, Perceived Efficiency, Information Provided, Fairness Perception, and Internet Selection Image towards Job Seeker’s Perception of Online-Based Application System.

Sampling Design

Non-probability sampling is used in this research, which is convenience sampling procedure in order to determine the respondents because in this research the researcher will collect the information from members of population who are suitably accessible to afford it (Sekaran & Bougie, 2013). The criteria of this research are those who are alumni and final year students in President University within the age of active job-seekers category which is 17 – 24 years old, and also have experienced in using online-based application system.
Population is unknown since there is no information on the amount of people who have used e-recruitment. The study focused on alumni and final year students of President University who have experienced online recruitment and selection when applying for job/internship which will be determined through the filter question. Therefore, number of respondents in this research is 150 since the questionnaire consist of 30 questions. According to Sekaran & Bougie (2010), if the sample size is more than 30 and less than 500, normally applicable for most research.

Pre-Test

Validity Test and Reliability Test were used in the Pre-Test. Validity test is the first requirement of a good instrument. Hence, in order to fulfill the remaining requirement in regards of

In order to measure whether the questionnaire statement is valid, doing validity test is required. According to (Cohen, 2013), the validity variables comes from if the significance level is $\geq \alpha$ (0.05). Otherwise, if $r$ is lower than $r$-table, thus it is considered as invalid and it needs to be deleted from the questionnaires. The valid data is a representative statement of variable which are ready to be spread to the targeted respondents.

Reliability test will check the how reliable the questionnaire is. A questionnaire is reliable if the respondents answer the questions consistently. Cronbach Alpha is the reliability coefficient that shows how well the things in a set have positive connection to each other (Sekaran & Bougie, 2010).

According to Gwet (2014) The value of Cronbach Alpha:

1. For the $\text{Alpha} > 0.90$ it is mean Perfect Reliability
2. $\text{Alpha}$ around 0.70-0.90 it is mean High Reliability
3. $\text{Alpha}$ around 0.50 – 0.70 it is mean Moderate Reliability
4. And if $\text{alpha} < 0.50$ it mean Low Reliability

Source: Gwet (2014)

Classical Assumption Tests

Classical assumption test can be defined as the factual necessities that must be met in multiple linear regression. Keeping in mind the end goal to utilize multiple regression models, classical assumption test should be actualized, for example, normality testing, multicollinearity testing, and heteroscedacity testing.

Multiple Regression

In order to define the relationship and dependence of the dependent variable on one or more independent variable, to estimate the average value of dependent variable, regression analysis is used. Regression that has more than one independent variable called as multiple regressions, a condition when the research use two or more independent variables in a linear regression analysis (Ghozali, 2007). Multiple regressions formula is as follows:
Multiple regression

\[
Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + b_5X_5 + e
\]

Source: Gozali (2007)

Where:
\(Y\) = dependent variable (Job-Seeker’s Perception of Online-Based Application System)
\(X_1\) = coefficient of variable (User-Friendliness)
\(X_2\) = coefficient of variable (Perceived Efficiency)
\(X_3\) = coefficient of variable (Information Provided)
\(X_4\) = coefficient of variable (Fairness Perception)
\(X_5\) = coefficient of variable (Internet Selection Image)

Hypotheses Tests

T Test and F Test are main tests used in this study. T-test aims to test the overall multiple regression models. This test determines whether there is a significant relationship between the dependent variable and independent variables (Levine, Krehbiel, & Berenson, 2013). If the T test shows that the level of significance number is <0.05, accepting the hypothesis occur and conclude that relationship between variables does exist, or vice versa. However according to Moghaddam (2013), if there is significant level under 0.10, then the hypothesis is still acceptable according to the significant level of 0.10.

F-Test is used to statistically test the null hypothesis that there is no linear relationship between \(X\) and \(y\) variables. The value of F-counted will determine whether the hypothesis is accepted or rejected. The researcher used level of significance <0.05. If the significant value is greater than significant level, then all independent variables have no significant impact on the dependent variable therefore \(H_6\) is rejected. Otherwise, if the significant value is less than significant level, then all independent variables has a significant impact on the dependent variable which means the \(H_6\) is accepted (Levine, Krehbiel, & Berenson, 2013).

4. RESULT AND DISCUSSION

The discussion from the result of Validity Test, Reliability Test, demographic profiles of respondents, inferential analysis, hypothesis testing, multiple regression analysis, and coefficient of determinants are presented in this part.

Validity and Reliability Tests

Validity test result has been obtained. Every single variable questionnaire is valid, as how the Pearson’s correlation value of all questions are above the \(\alpha\) (alpha) value of 0.361, based on the two-tailed 0.05 r table significance value (Levine, Krehbiel, & Berenson, 2013).

Table 1. Pearson’s Correlation Validity Test Result

<table>
<thead>
<tr>
<th>Variable</th>
<th>Question</th>
<th>R Table ((\alpha = 5%))</th>
<th>Valid Percent</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>UF_1</td>
<td></td>
<td>0.361</td>
<td>.665</td>
<td>Valid</td>
</tr>
<tr>
<td>UF_2</td>
<td></td>
<td>0.361</td>
<td>.551</td>
<td>Valid</td>
</tr>
<tr>
<td>Variables</td>
<td>Cronbach Alpha</td>
<td>Description</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>----------------</td>
<td>-------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(X1) User-Friendliness</td>
<td>.783</td>
<td>Reliable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(X2) Perceived Efficiency</td>
<td>.694</td>
<td>Reliable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(X3) Information Provided</td>
<td>.678</td>
<td>Reliable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(X4) Fairness Perception</td>
<td>.747</td>
<td>Reliable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(X5) Internet Selection Image</td>
<td>.738</td>
<td>Reliable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Y) Job Seeker’s Perception of</td>
<td>.684</td>
<td>Reliable</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online-Based Application System</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: SPSS 22.0 Output (2017)
Respondent’s Profile

Based on gender, the respondents are dominated with men which is 88 (58.7%) respondents, and the rest which is 62 (41.3%) respondents are women. Respondents age range of 21-24 years old dominate the participation in this research with the total number of 144 (96%) respondents. While the other 6 (4%) respondents’ range of 17-20 years old. the respondent’s batch year which suits the age range from 17-24 years old. 109 respondents (72.7%) out of 150.

Respondents that participated in this research are from President University batch 2013. The other 29 (19.3%) participants are from President University batch 2012. The second least percentage of participant of this research are final year students of President University.

Classical Assumption Tests

![Figure 1. Normality Test]

Source: SPSS, 22.0 Output (2017)
Figure 2. a. Normality Test  b. Heterocedascity Test

Source: SPSS, 22.0 Output (2017)

Hypothesis Testing Result

T-Test

Table 3. Coefficient Table

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
<th>Collinearity Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
<td>Tolerance</td>
</tr>
<tr>
<td>1 (Constant)</td>
<td>1.982</td>
<td>1.510</td>
<td>1.312</td>
<td>.192</td>
<td>.615</td>
</tr>
<tr>
<td>LFT</td>
<td>.031</td>
<td>.057</td>
<td>.043</td>
<td>538</td>
<td>.591</td>
</tr>
<tr>
<td>PET</td>
<td>.167</td>
<td>.066</td>
<td>.225</td>
<td>2.517</td>
<td>.013</td>
</tr>
<tr>
<td>IPT</td>
<td>.084</td>
<td>.086</td>
<td>.079</td>
<td>971</td>
<td>.333</td>
</tr>
<tr>
<td>FPT</td>
<td>.306</td>
<td>.077</td>
<td>.321</td>
<td>3.996</td>
<td>.000</td>
</tr>
<tr>
<td>ISIT</td>
<td>.117</td>
<td>.067</td>
<td>.151</td>
<td>1.742</td>
<td>.084</td>
</tr>
</tbody>
</table>

a. Dependent Variable: JSPT

Source: SPSS 22.0 Output (2017)
In order to decide the significant influence between every independent & variable dependent variable, T-Test is exploited. The hypothesis of Ha is accepted if the variable data is significant matching with the requirement which it should be below the significant level of 0.05. However according to Moghaddam (2013), if there is significant level under 0.10, then the hypothesis Ha is still acceptable according to the significant level of 0.10. The result of T-test as follows:

1. H1: There is no significant influence of User-Friendliness towards Job Seeker’s Perception of Online-Based Application System.
2. H2: There is a significant influence of Perceived Efficiency towards Job Seeker’s Perception of Online Application System as recruitment source.
3. H3: There is no significant influence of Information Provided towards Job Seeker’s Perception of Online-Based Application System.
4. H4: There is a significant influence of Fairness Perception towards Job Seeker’s Perception of Online Application System as recruitment source.
5. H5: There is a significant influence of Internet Selection Image towards Job Seeker’s Perception of Online Application System as recruitment source if using significant level 0.10.
6. H6: There is simultaneous significant influence of User-Friendliness, Perceived Efficiency, Information Provided, Fairness Perception, and Internet Selection Image towards Job Seeker’s Perception of Online Application System as recruitment source.

\textit{F-Test}

In order to determine whether the independent variables have significant result on the dependent variable simultaneously or not researcher use the tool of F-Test. H6 is accepted if the significance of F value less than 0.05. It means that all independent variables (User-Friendliness, Perceived Efficient, Information Provided, Fairness Perception, and Internet Selection Image) have significant influence on dependent variable which is Job-Seekers Perception of Online Application System.

\textbf{Table 4. ANOVA/F-Test Analysis}

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>392.826</td>
<td>5</td>
<td>78.565</td>
<td>23.021</td>
<td>.000*</td>
</tr>
<tr>
<td>Residual</td>
<td>491.447</td>
<td>144</td>
<td>3.413</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>884.273</td>
<td>149</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\textit{a. Dependent Variable: JSPT}

\textit{b. Predictors: (Constant), ISIT, IPT, UFT, FPT, PET}

Source: SPSS 22.0 Output (2017)

According to the result that has been acquired above, the significant result is 0.000 which means that the F value is below significant level, which is 0.05. As the result is below significant level therefore, the data above can be defined that H6 is accepted where there is a simultaneous
significant influence between all independent variables with the dependent variable which is Job-Seeker’s Perception on Online-based Application System.

Multiple Regression Result

Multiple regression analysis utilize to portray information as well as the clarification of whether there is relationship existence between one dependent variable with at least two independent variables. Based on Table 4.3: Coefficient Table, the result of multiple regression analysis will be interpreted in the standardized form of the equation as follows:

\[ Y = 1.982 + 0.167X_2 + 0.306X_4 + 0.117X_5 \]

Note:
\( Y \) = Job-Seeker’s Perception of Online-Based Application System
\( X_2 \) = Perceived Efficiency
\( X_4 \) = Fairness Perception
\( X_5 \) = Internet Selection Image

Coefficient Determinants (Adjusted R Square)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.667*</td>
<td>0.444</td>
<td>0.425</td>
<td>1.84738</td>
<td>1.917</td>
</tr>
</tbody>
</table>

\( ^a \) Predictors: (Constant), ISIT, IPT, UFT, FPT, PET
\( ^b \) Dependent Variable: JSPT

Source: SPSS, 22.0 Output (2017)

Discussion

The testing result for Hypothesis 1 showed that User-Friendliness variable give no influence towards Job-Seeker’s Perception of Online-Based Application System. It can be clarified through the T-Test aftereffect of 0.538 along with the significance level of 0.591, which is greater than the significance level of 0.05. This implies the fact that User-Friendliness variable is not essentially impacting the Job-Seeker’s Perception of Online Based Application System. User-Friendliness refers to easy in usability and without facing difficulties when operating the site (Sylva & Mol, 2009) with the research title of “E-Recruitment: A study into applicant perceptions of an online application system” which stated that result cannot be generalized as how the perceptions of applicants are held differently regarding online system depending on their familiarity with the use of Internet. Applicants who rated themselves as highly familiar with the use of Internet reported find no problem towards the User-Friendliness variable, and also reported significantly more positive of User-Friendliness and higher levels of satisfaction with
the online application system in comparison with applicants who rated themselves as less familiar with the use of Internet.

Hypothesis 2 testing result displayed that Perceived Efficiency variable has significant influence towards Job-Seeker’s Perception of Online-based Application System. According to the T-Test of 2.517 with significance level of 0.013, which is lower than 0.05, which means that Perceived Efficiency variable have significant influences towards Job-Seeker’s Perception of Online-based Application system. The importance of efficiency proves it is credible and reasonable considering the expectation of efficiency when doing anything using the internet in general which in this context is during recruitment and selection activity. That is, people might be quick to get frustrated when websites are inefficient in terms of cost, time and/or energy, thereby afterwards affecting the overall satisfaction (Sylva & Mol, 2009).

Hypothesis 3 testing result showed that Information Provided variable has no significant influence towards Job-Seeker’s Perception of Online-based Application System. The T-Test resulted 0.971 along with the significance level of 0.333 which is higher than the significance level of 0.05. It clarifies the fact Information Provided variable is not essentially impacting the Job-Seeker’s Perception of Online Based Application System. According to Sylva and Mol (2009), Information Provided has no significant influence, because Information Provided was a variable that is classified as a distinctive element of the website, namely the specific vacancy announcement, it could well be that respondent’s scores on this variable varied as a function of the vacancy rather than the online application system.

Hypothesis 4 testing resulted that Fairness Perception variable has significant influence towards Job-Seeker’s Perception of Online-Based Application System. It is justified according to the T-Test of 3.996 with the significance level of 0.000 which is lower than 0.05. The current research showed the high importance of fairness perceptions in e-recruitment processes. According to Thielsch, Träumer, and Pytlik (2012), it is important to understand how applicants perceive the online-based application process because the perceptions of procedural justice using online-based application system can influence applicants’ satisfaction, intention to pursue the job, and as how the recruiting process communicates the organization’s values to the applicants. In addition, there is a positive relation of Job-seeker’s fairness perception with the real practice of fair and procedural justice that organizations provide that can result a favorable attitude being held by job-seekers and applicants towards the use of online-based recruitment and selection processes as well as towards the organization.

Hypothesis 5 testing resulted that Internet Selection Image variable has significant influence towards Job-Seeker’s Perception of Online-Based Application System. It is justified according to the T-Test of 1.742 with the significance level of 0.084 which is lower than 0.10. However, according to Sinar et. Al (in Tania & Srimannarayana, 2014) there is an age-moderating effect on the Internet Selection Image, thus the perceptions of younger candidates have lesser influence on image of companies using the Internet for selection, comparing to older candidates. In addition, the result from the examination by Sinar et al (as cited from Tania & Srimannarayana, 2014) of several individual characteristics as potential moderators of process reactions towards Internet Selection Image. Accordingly, prior internet experience and age appeared most promising as moderating influences.

5. CONCLUSION AND RECCOMENDATION

Conclusions
The conclusions of this study are as follows:
1. There is no significant influence of User-Friendliness towards Job-Seeker’s Perception of Online-Based Application System.
2. There is significant influence of Perceived Efficiency towards Job-Seeker’s Perception of Online-Based Application System.
3. There is no significant influence of Information Provided towards Job-Seeker’s Perception of Online-Based Application System.
4. There is significant influence of Fairness Perception towards Job-Seeker’s Perception of Online-Based Application System.
5. There is significant influence of Internet Selection Image towards Job-Seeker’s Perception of Online-Based Application System.
6. There is a simultaneous significant influence of all independent variables which are User-Friendliness, Perceived Efficiency, Information Provided, Fairness Perception, and Internet Selection Image with the dependent variable which is Job-Seeker’s Perception of Online-Based Application System.

Recommendation

For Companies

There is positive applicant reactions, the worldwide reach of the Internet, and significant savings related to web-based recruitment and assessment procedures, which means that recruitment and selection on the Internet has great potential and therefore improving, maintaining and increasing online-based recruitment and selection is recommended. Especially it is important for companies and recruiters to improve and have extra effort of Fairness Perceptions or in other words increasing procedural justice and interpersonal treatment towards job-seekers or applicants as referring to the result that job-seekers expectation towards companies to provide fairness among all applicants and job-seekers.

The improvement of Perceived Efficiency is also recommended because referring to the result, one of the reasons of job-seekers use online-based for job search until job selection process is because the consideration of efficiency in terms of time, cost and energy. People might be easy to get frustrated when websites are inefficient in terms of cost, time and/or energy, thereby it subsequently affects the overall satisfaction. Hence researcher recommend recruiters and companies improve technical adequacy for preventing errors, delays, and quicker responses is needed.

Although the finding of this research shows that there is no significant influence of User-Friendliness towards the Job-Seeker’s Perception of Online-Based Application System, but increasing and maintaining User-Friendliness is important as how this research result only comes from the perception of men as the domination of respondents as well as fresh graduates and final year students that are generally familiar with the use of internet. Referring to the theory of Technology Acceptance Model by Venkatesh et al. (in Pavon & Brown, 2010) demonstrate that the strength of influence of the variables is moderated by age, experience, and gender. In which the effect will be stronger towards women, early stages of experience, and older adults.

Information Provided should be improved in terms of its completeness although the finding of this research shows there is no significant influence of Information Provided towards Job-Seeker’s Perception of Online-Based Application System because according to Tania and
Srimannarayana (2014), the sources for job-seekers to seek for information does not depend from one source, but improvement of information provided is still needed in order to facilitate job-seekers expectations and curiosity towards the job, the recruitment and selection processes, and the organization.

For Job-Seekers

Referring to variable of User-Friendliness and Perceived Efficiency, the researcher recommends job-seekers to actively share reviews, seek information, and utilize trusted employment-review websites in advance (i.e. glassdoor.com) regarding which online-based application system that has the most complete technical facilities, efficiency, and information provided for both recruiters and job-seekers before using online-based application system, this way job-seekers may know which and what kind of online-based application system is the most satisfying.

Referring to variable User-Friendliness and Fairness Perception, job-seekers are recommended to always read and follow all instructions accordingly when applying jobs online and doing online test. As an example, when about to do online test, job-seekers may actively ask the company’s recruiter when there are unclear instructions. Additionally, whether there would be any back-up plans or compensation when faced with the possibility of error occurring during the online test. This way there will be a satisfying interpersonal treatment for job-seekers from recruiter’s side which satisfies both parties.

For Future Research

1. Future research it is needed to do further research regarding User-Friendliness variable in which the respondents are above the age from this research.
2. The future researcher can use other method, such as qualitative method by doing interview directly to current existing employees from a company. This method can gather more accurate data because doing interview requires open-ended questions where the data can be obtained deeper comparing to questionnaires.
3. The future research is recommended to further develop by adding new variables like confidentiality of personal information or privacy risks. This way it can expand the perception of job-seekers towards online-based online application system.

REFERENCES


Conditional C-Score:
Conditional Conservatism Measure Based on C-Score

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Abstract

Khan and Watts (2009) constructed new accounting conservatism, namely C-Score. The C-Score measured timeliness of recognizing profit and loss, which was based on three factors, which were market to book, firm size and leverage. Whereas, according to Hansen (2017); Givoly and Hayn (2000); Pope and Walker (2003); Givoly et.al. (2004); Pae et al. (2004); Roychowdury and Watts (2004); market-to-book was a measure of unconditional conservatism. Beaver and Ryan (2005); and Qiang (2007) proved that unconditional conservatism can decrease the level of conditional conservatism. Because of that, this research proposes the use of bid ask spread and leverage in measuring conditional conservatism. Using 1,782 companies listed on Indonesia Stock Exchange during the year of 2014 until 2017, this research fail to prove that the conditional c-score is better than c-score in measuring conditional conservatism.

Keywords: accounting conservatism, conditional conservatism, unconditional conservatism c-score, conditional c-score, market to book, leverage, firm size, bid ask spread

1. INTRODUCTION

Khan and Watts (2009) proposed a new measure of accounting conservatism, namely C-score. The C-score sought to capture variations in accounting conservatism and strived to predict the timeliness of loss / profit recognition for the next three years. Khan and Watts could prove that C-scores can be a new measure of accounting conservatism, and can predict the timeliness of loss / profit recognition for the next three years.

Khan and Watts (2009) based C-score calculations on measures of Basu conservatism (1997). The C-score is the incremental coefficient of compensation acknowledgment. While the G-score is the coefficient of timeliness of earnings recognition. The timeliness coefficient of loss
and profit recognition C-score and G-score was seen from three factors, namely market-to-book, company size, and leverage. Conservatism increases if the C-score value increases.

Hansen (2017) revealed that non operating accruals and market-to-book are a measure of unconditional conservatism. This is reinforced by Givoly and Hayn (2000), Pope and Walker (2003), Givoly et al. (2004), Pae et al. (2004) and Roychowdury and Watts (2004). Hansen (2017) also suggested that to measure conditional conservatism the model suggested by Basu (1997) was used.

If C-Score is made using the Basu model (1997), where the Basu model (1997) measures conditional conservatism, it will be very inappropriate if the C-score determinant measures unconditional conservatism. The size meant here is market-to-book. Beaver and Ryan (2005) and Qiang (2007) prove that unconditional conservatism can reduce the level of conditional conservatism. Or in other words, conditional conservatism and unconditional conservatism are negatively related.

This study seeks to expand the research conducted by Khan and Watts (2009). This study proposes the c-score determinant is the percentage of independent commissioners (originating from outside the company) and the ratio of private long term debt to the total long term debt. These two variables are variables used by Qiang (2007) in testing conditional conservatism.

So that the research gap in this study is the use of bid ask spread and leverage as variables that affect the C-score and G-score. Furthermore, this study contributes to the financial accounting literature by proposing a conditional conservatism C-score measure, judging from the factors that influence it, namely bid ask spread and leverage.

Formulation of the Problem
The formulation of the problem in the research is "what is conditional C-score can be better than C-score, in capturing conditional conservatism?"

Research Purposes
In line with the formulation of the problem, the purpose of this study was to determine the ability of the conditional C-score to capture conditional conservatism, compared with the C-score.

Benefits of Research
By conducting this research, the benefits that can be taken are variations in conservatism (factors that influence conservatism, including bid ask spread and leverage) can influence conditional conservatism so that it can be used in constructing a measure of conditional conservatism.

2. LITERATURE REVIEW

Basu Conservatism (1997)

Basu (1997) defines accounting conservatism as the tendency of accountants to require a higher level of verification to recognize good news, such as profit, than to admit bad news, such
as loss. Basu (1997) says conservatism is the most influential accounting practice for at least 500 years.

Basu (1997) made a regression model in calculating conservatism. The model has variables as follows:

\[
\begin{align*}
\text{EARN} &= \text{profit} \\
\text{RET} &= \text{return} \\
\text{NEG} &= \text{dummy variable, 1 for return less than zero.}
\end{align*}
\]

Then, the coefficients \(\beta_1\) and \(\beta_2\). \(\beta_1\) shows the timeliness of the company in recognizing profits, while \(\beta_2\) shows the incremental timeliness of the company in recognizing losses on profits. The company's timeliness in recognizing losses, in total, we can see from \(\beta_1 + \beta_2\).

Conservatism of Watts (2003)

Bliss (1924) in Watts (2003) defines accounting conservatism as "not anticipating profits, but anticipates all losses. Meanwhile, Watts (2003) defines accounting conservatism as a requirement for asymmetric verification of profit and loss. Watts (2003) interpreted this as follows: the greater the verification difference needed for profit versus loss, the greater the conservatism.

Watts (2003) explains that variations in conservatism depend on four factors, namely contracts (both debt contracts and executive compensation contracts), litigation, and regulations. Companies with higher debt require higher conservatism. This is because managers who need funds for growth companies prefer to get funds from debt, for reasons of speed and practicality. Lenders ask companies to contract debt with covenants at certain financial ratios.

On the other hand, shareholders also demand that the company be able to distribute dividends and return the value stated in the stock in the event of bankruptcy. The shareholders demand this because of their position as residual claimants. So that both shareholders and lenders alike demand conservatism to ensure that their position is safe in terms of the amount they must receive.

Executive compensation contracts also create agency problems. Agency problem in this case is a problem between management and shareholders. Executives whose compensation is based on profits have a tendency to manage company profits. Because, with greater profits, the greater the compensation received by management. Shareholders can anticipate this by demanding greater conservatism for companies that base profits based on executive compensation contracts.

Meanwhile, in the case of litigation, litigation is more likely to occur if net assets and profits are more served than those treated by credit (Watts, 2003). Therefore, management and auditors have reasons and incentives to report more conservative net income and asset values. The company is expected to accelerate compensation and slow the recognition of profits.

C-score Khan and Watts (2009)

The C-score developed by Khan and Watts (2009) is influenced by factors that influence conservatism, namely debt contracts, executive compensation contracts, litigation, taxation and regulation (Watts, 2003). These factors are represented by market-to-book, company size, and leverage.

Companies with high market-to-books have high growth opportunities. Companies with high growth have high intangible assets, where these assets are vulnerable to decreasing value at any
time. If the value of intangible assets can decrease at any time, then profits can also decrease at any time. Therefore, high conservatism is needed. So, the C-score is influenced by the market-to-book ratio.

Meanwhile, more mature companies have a high uncertainty environment and information asymmetry with increasing corporate segments (Watts, 2009). So that large companies demand greater conservatism. On the other hand, Easley et.al. (2002) found that large companies demand higher conservatism, because large companies with many divisions produce profits and losses at a time, so large companies try to smooth high profits by summing up the profits and losses of all divisions, to reduce tax liability. In addition, large companies are also more vulnerable to litigation, because the opportunity to be prosecuted for high profits is also greater, so there is a fixed cost for litigation, so demand for conservatism is higher for large companies. Therefore, company size affects conservatism, and then affects the C-score.

Furthermore, Khan and Watts (2009) also say conservatism is also influenced by leverage. Companies with high leverage have higher agency boarding. Because management, preferring to get funds from outside parties, with reasons to minimize taxes, shareholders are concerned about their rights to dividends, and in the case of corporate financial difficulties, shareholders are concerned about their rights to the value stated on the paper. For this reason, shareholders request greater conservatism from the company on its financial statements. The lender also asks for greater conservatism, because to ensure that the company can pay a sum of money already lent to the company.

Basu (1997) models the measure of asymmetric timeliness of recognition of profit and loss. Timeliness of earnings recognition (good news) is denoted by $\beta_1$, then denoted by G-score. Meanwhile the incremental recognition of loss (bad news) for profit (good news) is $\beta_3$, which is then denoted by the C-score. The followings are the variable included.

\[
\begin{align*}
EARN &= \text{profit} \\
RET &= \text{return} \\
NEG &= \text{dummy variable, 1 for return less than zero.} \\
MTB &= \text{market to book} \\
SIZE &= \text{company size} \\
LEV &= \text{leverage}
\end{align*}
\]

**Conditional Conservatism and Unconditional Conservatism**

Beaver and Ryan (2005) define accounting conservatism as the average under-serving book value of assets relative to market value. Beaver and Ryan (2005) explain the characteristics of conservatism. Conservatism can be divided into two, namely unconditional conservatism and conditional conservatism. Unconditional conservatism means that aspects of the accounting process are determined at the beginning of the asset and the liability is recorded, resulting in unrecorded goodwill. An example of unconditional conservatism is faster recording the costs of intangible assets generated by the company itself, accelerating the depreciation of property, plant and equipment.

Whereas conditional conservatism is interpreted by Beaver and Ryan (2005) as the book value recorded is lower in adverse conditions (unpleasant), but not higher in favorable conditions (pleasant). An example of conditional conservatism is the recording of preparations in lower of cost or market, impairment for intangible assets and long lived tangible assets.
Beaver and Ryan (2005) prove that unconditional conservatism decreases book value, therefore reducing conditional conservatism in the future. Unconditional conservatism plays a role in reducing conditional conservatism so that both forms of conservatism are negatively related. It can be concluded that conditional conservatism and unconditional conservatism are two different things.

Hansen (2017) investigates whether the company's life cycle stage affects the conservatism between sections. Hansen tested conservatism with the level of non operating accruals and market-to-book as a measure of unconditional conservatism (as used by Givoly and Hayn, 2000); and the measure of Basu conservatism (1997) to measure conditional conservatism. Hansen (2017) proved that unconditional conservatism decreased during the life cycle stage of the company, but did not find evidence that conditional conservatism was related to the stages of the company's life cycle. The results of Hansen's (2017) study prove that unconditional conservatism has different characteristics from conditional conservatism so that it produces different research results.

Meanwhile, Qiang (2007) tested the effects of contracts, litigation, regulation and tax costs on conditional conservatism and unconditional conservatism. Qiang (2017) proved that contracts induce conditional conservatism, litigation causes conditional conservatism and unconditional conservatism, regulation causes unconditional conservatism, and taxation causes unconditional conservatism. The results of the Qiang study (2017) indicate an interrelated role, as suggested, that unconditional conservatism reduces conditional conservatism. So we can conclude that these two forms of conservatism are negatively related.

In addition, several other studies also examined the relationship of unconditional conservatism and conditional conservatism. Among them are Pope and Walker (2003), Givoly et.al. (2004), Pae et.al (2004) and Roychowdury and Watts (2004) empirically prove that unconditional conservatism, which is proxied by market-to-book, is negatively associated with low conditional conservatism, as measured by asymmetry.

Conditional C-score

Based on the research of Khan and Watts (2009), Watts (2003), Basu (1997), Qiang (2007), and Hansen (2017), the researcher proposed a conditional c-score. The author based on the framework of thinking from Watts (2003) regarding the factors that influence conservatism. According to Watts (2003), the factors that influence conservatism are four (4) factors, namely contract, litigation, taxation and regulation. The c-score determinant is a variable that affects conservatism. Because only contracts that cause conditional conservatism, the c-score proposed in this study is based on only one factor, namely the contract. Regulation and taxation cause unconditional conservatism. While litigation causes unconditional conservatism and conditional conservatism. Why does this study measure conditional conservatism and not unconditional conservatism? Because the development of the c-score model is based on the Basu (1997) model, where Basu (1997) measures conditional conservatism.

The determinant of the conditional c-score in this study is the contract. The contract is divided into two, namely equity contracts and debt contracts. Equity contracts are represented by bid ask spreads, while debt contracts are represented by leverage ratios.

Bid ask spread is a measure used to capture how much information asymmetry. The greater the bid ask spread, the greater the information asymmetry. Bid price is the price offered by the
company, because the company considers itself good so that it can be valued at the price of the bid. While the ask price is the price demanded by investors because investors feel the company is good so that it can be valued at the ask price. If the company and investor have the same perception of the condition of the company, then the ask price and bid price will not differ too far. If the company and investor have different perceptions about the condition of the company, for example there is information asymmetry, where the company considers itself good, while investors assess the condition of the company that is not good or bad, the ask and bid prices will differ greatly. The bid ask spread is a commonly used measure in assessing information asymmetry.

On the other hand, the leverage ratio is a measure of how much debt the company uses to finance the company. Companies prefer debt to finance companies because the use of debt can reduce tax payments. While the shareholders, worried that the profits obtained by the company would be more widely used to pay interest costs than to pay dividends to shareholders.

Timeliness of earnings recognition (good news) is denoted by \( \beta_1 \), then denoted by \( G\text{-score} \). Meanwhile the incremental recognition of loss (bad news) for profit (good news) is \( \beta_3 \), which is then denoted by the \( C\text{-score} \).

Hypothesis Development

**C-score** Khan and Watts (2009) based on factors that influence conservatism, namely market-to-book, firm size and leverage, in constructing its size. C-score capital development is based on the Basu (1997) model, which we all know that the Basu model (1997) measures conditional conservatism. While the c-score determinant is market-to-book. According to Hansen (2017), Givoly and Hayn (2000), Pope and Walker (2003), Givoly et.al. (2004), Pae et.al. (2004) and Roychowdury and Watts (2004) market-to-book is a measure of unconditional conservatism. Beaver and Ryan (2005) and Qiang (2007) prove that unconditional conservatism and conditional conservatism are negatively related. If the Basu (1997) and market-to-book models are used in one formula, namely c-score, then the influence of these two things can be negative or negate each other.

Whereas in this study, a C-score was proposed specifically to measure conditional conservatism. The author proposes a conditional c-score which is expected to be better in measuring conditional conservatism than c-score. The c-score determinant in this study is the factors that influence contracts, both executive compensation contracts, and debt contracts. Equity contracts are represented by bid ask spreads. While debt contracts are represented by leverage. Thus, the conditional c-score used here uses the Basu model (measuring conditional conservatism) and the c-score determinant is the factors that influence conditional conservatism. Then it is expected that the conditional c-score can better measure conditional conservatism.

Based on the explanation above, the hypothesis that can be proposed is as follows:

**Hypothesis:** Conditional C-score explained that conditional conservatism was better than Khan's C-score and Watts (2009).

3. RESEARCH METHODS

Population and Sample
The population in this study are companies that are stock exchanges in the United States, which are available in the database. While the samples taken are companies that are taken with the following conditions:

- Because data is taken from Thomson Reuters, the company must be registered with Thomson Reuters during the study period, namely 2014-2016.
- Issues companies registered in the financial and banking industry, the utility industry, because these two industries are highly regulated.
- Provide data needed in this study.

The sample is taken in a way *purposive sampling.*

*Measurement Of Variables*

**Dependent Variable**

The dependent variable used in this study is stock returns.

- EARN = profit
- NIBE = net income before items extra coordinate
- MVE = market value of equity

**Independent Variables**

The independent variables used in this study are stock returns, stock return volatility, company age, and *debt ratio*.

- \( \text{RET}_{i,t} \) = annual return of company i, year t
- \( \text{RET}_{i,mt} \) = monthly return of company i, month t
- \( \text{DIV} \) = dividend
- \( \text{STDEVRET} \) = standard deviation of stock returns
- \( \text{DEBT} \) = total debt
- \( \text{TA} \) = total assets
- \( \text{MTB} \) = market to book
- \( \text{MVE} \) = equity market value
- \( \text{BVE} \) = book value of equity
- \( \text{LEV} \) = leverage
- \( \text{EQ} \) = total equity
- \( \text{SIZE} \) = company size
- \( \text{BIDASK}_{i,t} \) = average bid ask spread of company i, in year t during year t
- \( \text{BIDASK}_{i,d} \) = bid ask spread of company i, on day d

**Variable characteristics of the company**

The company characteristic variables used here are investment cycles and non operating accruals.

- \( \text{INVCYC} \) = investment cycle
- \( \text{DEPEXP} \) = depreciation costs
- \( \text{NONOPACC} \) = non-operational accruals
NIBE = profit before extra items  
CFO = cash flow from operations  
CHANGENONCA = changes in non-cash current assets  
AR = trade accounts receivable  
INV = preparation  
PREEXP = prepaid expenses

4. RESEARCH RESULTS AND DISCUSSION

Data

Data was taken from Thomson Reuters and Datastream. Population is a company listed on the Indonesia Stock Exchange. The sample used is a non-financial company that meets the criteria and provides the data needed in this study. Sample calculation is as follows:

- Companies listed on the Stock Exchange in America at Thomson Reuters: 8,269
- Companies including the financial industry: (1,051)
- Companies that do not provide the required data: (4,880)
- Companies with data outliers: (558)
- Company samples that provide the data needed on years 2013 - 2016: 1,782

The research period is 2014-2016, so this study is 5,346 companies a year.

While the results from deskripitf statistics are as follows:

Table 1. Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Range</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>RET</td>
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<td>-.20</td>
<td>1.90</td>
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<td>.48862</td>
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<tr>
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<td>1.00</td>
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<td>.48676</td>
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<tr>
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<td>-.20</td>
<td>.00</td>
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<td>.02163</td>
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<td>BIDASKSPREAD</td>
<td>5346</td>
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<td>-1.67</td>
<td>.6</td>
<td>-.0095</td>
<td>.04721</td>
</tr>
<tr>
<td>EARN</td>
<td>5346</td>
<td>98.84</td>
<td>-96.48</td>
<td>2.36</td>
<td>-.0645</td>
<td>1.66499</td>
</tr>
<tr>
<td>SIZE</td>
<td>5346</td>
<td>7.17</td>
<td>4.64</td>
<td>11.81</td>
<td>8.8666</td>
<td>.97201</td>
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<tr>
<td>MTB</td>
<td>5346</td>
<td>129.97</td>
<td>-36.31</td>
<td>93.67</td>
<td>2.7195</td>
<td>3.35877</td>
</tr>
<tr>
<td>LEV</td>
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<td>21.11</td>
<td>-.27</td>
<td>20.84</td>
<td>.4292</td>
<td>.95497</td>
</tr>
<tr>
<td>INVCYCLE</td>
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<td>.00</td>
<td>.72</td>
<td>.0419</td>
<td>.03762</td>
</tr>
<tr>
<td>CFO</td>
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<td>-14.42</td>
<td>9.52</td>
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<tr>
<td>NONOPACC</td>
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<td>-23.69</td>
<td>33.44</td>
<td>-.0469</td>
<td>.81195</td>
</tr>
<tr>
<td>Valid N (listwise)</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: data processed
In this study, eleven variables were used, namely return, negative dummy variable, negative variable multiplied by return variable, bid ask spread variable, earnings variable, size variable, market to book variable, leverage variable, investment cycle variable, cash flow variable from investment activity, and non operating accruals variables. For return variables, or RET is in the range -0.20 to 1.90, with an average of 0.0075, and a standard deviation of 0.04862. This means that the average sample company produces a return of 0.0075. Return variable, taken from the average monthly return for one year. Researchers use average monthly returns, because they follow Khan (2009).

For negative dummy variables, or NEG, on average 0.385. The standard deviation is 0.48676. the NEG variable, will be 1 if the return variable is less than zero, and zero if not. With an average of 0.385, it means that sample companies tend to have positive returns rather than negative returns.

Next is the NEGRET variable, is the multiplication variable of the negative variable and the return variable. This variable has an average of -0.0107, and the standard deviation is 0.02163.

From the table above, it can be seen that the average variable bid-ask spread is -0.0095, and the standard deviation is 0.04721. this variable is calculated from the bid price minus the ask price, then divided by the mid price between the bid and ask prices.

While the earnings variable, the average is -0.0645 and the standard deviation is 1.66499. So sample companies have a profit and loss before items are extra coordinated.

Then the variable size of the company, an average of 8.666, with a standard deviation of 0.95497. The size of the company is calculated from the natural logarithm of the equity market value.

While the market to book value is 2.7195, and the standard deviation is 3.35877. The market to book value is calculated from the equity market value divided by the book value of equity.

Then, the value of leverage, the average is 0.4292, and the standard deviation is 0.9547. So almost half of the company's assets are financed by the company's long-term debt.

The investment cycle has an average of 0.0419 and a standard deviation of 0.03762. This variable is calculated from depreciation costs divided by the total total assets of the previous year.

Furthermore, the cash flow variables from operations have an average of 0.0390 and a standard deviation of 0.36232. Then accrual non-operating variables or NONOPACC, have an average of -0.0469 and a standard deviation of 0.81195.

5. RESEARCH RESULTS AND DISCUSSION
Table 2. Spearman Correlation

<table>
<thead>
<tr>
<th></th>
<th>RET</th>
<th>NEG</th>
<th>NEGRE</th>
<th>BIDASKSPREAD</th>
<th>EARN</th>
<th>SIZE</th>
<th>MTB</th>
<th>LEV</th>
<th>INVCYCLE</th>
<th>CFO</th>
<th>NONOPACC</th>
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<tbody>
<tr>
<td>Spearman's RET rho Correlation Coefficient</td>
<td>1.000 **</td>
<td>.843 **</td>
<td>.876 **</td>
<td>.125 **</td>
<td>.238 **</td>
<td>.133 **</td>
<td>.233 **</td>
<td>.077 **</td>
<td>.002 **</td>
<td>.095 **</td>
<td>.129 **</td>
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<tr>
<td>Sig. (2-tailed)</td>
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<td>.000</td>
<td>.000</td>
<td>.000</td>
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<td>.000</td>
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<td>.860</td>
<td>.000</td>
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</tr>
<tr>
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<td>5346</td>
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</tr>
<tr>
<td>NEG</td>
<td>Correlation Coefficient</td>
<td>.843 **</td>
<td>1.000</td>
<td>-961 **</td>
<td>-.157 **</td>
<td>-.245 **</td>
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<td>.214 **</td>
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<td>Sig. (2-tailed)</td>
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</tbody>
</table>

**. Correlation at 1% level

Source: data processed
If seen from the Spearman correlation, only the investment cycle variable or INVCYCLE does not correlate with return (RET), negative dummy return variable (NEG), negative return variable multiplied by return (NEGRET), bid ask spread (BIDASKSPREAD) and profit before extra coordinate items (EARNINGS). All variables used in this study correlate with company size (SIZE), market to book (MTB) and leverage (LEV). While the bid ask spread (BIDASKSPREAD) variable, market to book (MTB) and leverage (LEV) are not correlated with non operating accrual (NONOPACC) variables.

<table>
<thead>
<tr>
<th>Table 3. Coefficient and Value Significance of C-Score Regression</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year</strong></td>
</tr>
<tr>
<td><strong>Unstandardized Coefficients</strong></td>
</tr>
<tr>
<td>(Constant)</td>
</tr>
<tr>
<td>NEG</td>
</tr>
<tr>
<td>RET</td>
</tr>
<tr>
<td>RETSIZE</td>
</tr>
<tr>
<td>RETMTB</td>
</tr>
<tr>
<td>RETLEV</td>
</tr>
<tr>
<td>NEGRET</td>
</tr>
<tr>
<td>NEGRET.SIZE</td>
</tr>
<tr>
<td>NEGRETMTB</td>
</tr>
<tr>
<td>NEGRETLEV</td>
</tr>
<tr>
<td>SIZE</td>
</tr>
<tr>
<td>MTB</td>
</tr>
<tr>
<td>LEV</td>
</tr>
<tr>
<td>NEG.SIZE</td>
</tr>
<tr>
<td>NEGMTB</td>
</tr>
<tr>
<td>NEGLEV</td>
</tr>
<tr>
<td>ADJUSTED R SQUARE</td>
</tr>
<tr>
<td>SIG.VALUE</td>
</tr>
</tbody>
</table>

Source: data processed

Based on the table above, there is a significant inconsistency in the 2014, 2015 and 2016. Regression Variables NEGRET is significant at the 10% level in 2014. While the return variable is significant in 2014, but not in 2015 and 2016. This means that the company recognizes the news bad is more timely than good news in 2015.

Then for variables that are c-score determinants, the NEGRET.SIZE variables are not significant in the three-year sample, NEGRETMTB variables are significant in 2014 and 2016, and NEGRETLEV variables are significant in 2016. As for the significant RETSIZE variable in
2014, RETMTB is significant in 2015 and 2016, and the RETLEV variable was significant in 2016.

Table 4. Coefficient and Significance Value of Regression Conditional C-Score

<table>
<thead>
<tr>
<th></th>
<th>2016</th>
<th>2015</th>
<th>YEAR 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unstandardized Coefficients</td>
<td>Sig.</td>
<td>Unstandardized Coefficients</td>
</tr>
<tr>
<td>(Constant)</td>
<td>0.750</td>
<td>0.000</td>
<td>0.041</td>
</tr>
<tr>
<td>NEG</td>
<td>-0.703</td>
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<td>0.030</td>
</tr>
<tr>
<td>RET</td>
<td>-8.956</td>
<td>0.000</td>
<td>-1.083</td>
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<tr>
<td>RETBIDASK</td>
<td>2.249</td>
<td>0.856</td>
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<tr>
<td>RETLEV</td>
<td>15.610</td>
<td>0.000</td>
<td>-0.535</td>
</tr>
<tr>
<td>NEGRET</td>
<td>12.296</td>
<td>0.006</td>
<td>2.580</td>
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<tr>
<td>NEGRETBIDASK</td>
<td>9.794</td>
<td>0.769</td>
<td>12.642</td>
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<tr>
<td>NEGRETLEV</td>
<td>-12.984</td>
<td>0.000</td>
<td>-1.157</td>
</tr>
<tr>
<td>BIDASK</td>
<td>0.353</td>
<td>0.890</td>
<td>1.132</td>
</tr>
<tr>
<td>LEV</td>
<td>-1.898</td>
<td>0.000</td>
<td>-0.013</td>
</tr>
<tr>
<td>NEGEBIDASK</td>
<td>0.941</td>
<td>0.845</td>
<td>-0.651</td>
</tr>
<tr>
<td>NEGLEV</td>
<td>1.839</td>
<td>0.000</td>
<td>-0.246</td>
</tr>
<tr>
<td>ADJUSTED R SQUARE</td>
<td>32.5%</td>
<td>5.7%</td>
<td>2.6%</td>
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<tr>
<td>GISC. VALUE</td>
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<td>0.00</td>
<td>0.00</td>
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</table>

Source: data processed

If seen from the table above, there is a significant inconsistency in the 2014, 2015 and 2016. Regression NEGRET variables are significant in 2015 and 2016. While the return variable is significant in 2014, but not in 2014 and 2016. This means that the company recognizes the news bad is more timely than good news in 2015 and 2016.

Furthermore, for variables that are conditional c-score determinants, the NEGRETBIDASK variable is not significant in the three-year sample, and the NEGRETLEV variable is significant in 2016. While for the RETBIDASK variable is significant in 2014, and the RETLEV variable is significant in 2016.

Table 5. Average and Standard Deviation of C-Score and Conditional C-Score

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>C-SCORE</td>
<td>-8,145</td>
<td>2.196</td>
<td>35,685</td>
<td>9.105</td>
<td>14,065</td>
<td>74,928</td>
</tr>
<tr>
<td>G-SCORE</td>
<td>21,143</td>
<td>4,696</td>
<td>33.154</td>
<td>8,904</td>
<td>-</td>
<td>43,116</td>
</tr>
</tbody>
</table>

Source: data processed
From the table above, we can know that the average c-score is 9,912, with a standard deviation of 22,911. Then, the average g-score is -5,569, while the standard deviation is 2,159.

While the conditional c-score average is -17.253 with a standard deviation of 26,952. Then, the average g-score is 13,985 and the standard deviation is 26,952.

C-score and g-score are calculated using annual data. Because this study uses three (3) research periods, namely 2014, 2015 and 2016, the c-score and g-score obtained are 3 c-scores and 3 g-scores.

Based on the table above, the characteristics of c-score and g-score and conditional c-score and conditional g-score have very different characteristics. This is evidenced by the positive C-score average, while the conditional c-score is negative. Then the g-score average is negative, while the conditional g-score is positive.

Table 6. Rank Correlation between C-score and Conditional C-Score with RETURN Coefficient and NEGATIVE RETURN Coefficient

<table>
<thead>
<tr>
<th>C-SCORE</th>
<th>RATA2 C-SCORE</th>
<th>RATA2 CONDITIONAL C-SCORE</th>
<th>STANDARD OF C-SCORE DEVIATION</th>
<th>STANDARD OF CONDITIONAL C-SCORE DEVIATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>9,912</td>
<td>-17,253</td>
<td>22,911</td>
<td>26,952</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>RATA2 G-SCORE</th>
<th>RATA2 CONDITIONAL G-SCORE</th>
<th>STANDARD OF G-SCORE DEVIATION</th>
<th>STANDARD OF CONDITIONAL G-SCORE DEVIATIONS</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>-5,569</td>
<td>13,985</td>
<td>27,159</td>
<td>26,952</td>
</tr>
</tbody>
</table>

Source: data processed
If in Khan and Watts (2009), the c-score is divided into ten deciles (because there are 43 c-scores from 43 annual regression c-scores), then in this study there are only 3 c-score values, so that they are directly entered into three (3) different groups, from the lowest, the medium, to the highest. Then the c-score (ranking value) is correlated with the return coefficient and the negative return coefficient. From the rank correlation results, there is no significant correlation between the c-score and the RETURN coefficient and the NEGATIVE RETURN coefficient. There is also no significant correlation between the conditional c-score with the RETURN coefficient and the NEGATIVE RETURN coefficient. This means, there is no monotonic increase between the increase in c-score and conditional c-score with the RETURN and NEGATIVE RETURN coefficients. Because both are not significant, the results of both, cannot be compared. Which is better between c-score and the conditional c-score cannot be known. Thus, the hypothesis is rejected. That is, this study can not prove that the Conditional C-score describes the conditional conservatism is better than C-score Khan and Watts (2009).

Table 7. Rank Correlation between C-score and Conditional C-Score with Characteristics of C-Score and Conditional C-Score

<table>
<thead>
<tr>
<th>C-SCORE</th>
<th>C-SCORE</th>
<th>G-SCORE</th>
<th>SIZE</th>
<th>MTB</th>
<th>LEV</th>
<th>INVCY</th>
<th>NON-OPCY</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOW</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1,000</td>
<td>-8,145</td>
<td>21,143</td>
<td>8,873</td>
<td>2.57</td>
<td>0.443</td>
<td>0.042</td>
<td>-0.047</td>
</tr>
<tr>
<td>2,000</td>
<td>2.196</td>
<td>-4,696</td>
<td>8,828</td>
<td>2.45</td>
<td>6.041</td>
<td>0.041</td>
<td>-0.026</td>
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<td>3,000</td>
<td>35,685</td>
<td>-33,154</td>
<td>8,898</td>
<td>3.12</td>
<td>8.034</td>
<td>0.043</td>
<td>-0.068</td>
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<tr>
<td>HIGH</td>
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<tr>
<td>RANK CORRELATION</td>
<td>-1.000</td>
<td>0.352</td>
<td>0.77</td>
<td>2.00</td>
<td>-0.705</td>
<td>-0.500</td>
<td>-0.500</td>
</tr>
<tr>
<td>SIG VALUE</td>
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<td>0.771</td>
<td>0.53</td>
<td>0.80</td>
<td>0.502</td>
<td>0.667</td>
<td>0.667</td>
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<tr>
<td>HI-LO</td>
<td>43,830</td>
<td>-54,297</td>
<td>0.025</td>
<td>0.55</td>
<td>4.055</td>
<td>-0.129</td>
<td>0.001</td>
</tr>
</tbody>
</table>

Source: data processed
Based on the table above, we can see that the c-score ranking is significantly correlated with the g-score, but not with the characteristics of the c-score, namely the variable firm size (SIZE), market to book (MTB), leverage (LEV), investment cycle (INVCYC), and non-operational accruals (NONOPCYC). Whereas when viewed from the conditional c-score ranking it correlates significantly at 11%, and does not significantly correlate with the characteristics of the conditional c-score. Because most of the characteristics of c-score and conditional c-score did not correlate significantly with c-score ranking and conditional c-score, the researchers were unable to compare whether the c-score conditional was better at explaining conditional c-score characteristics or not compared to c-score in explaining the characteristics of the c-score, so the hypothesis is rejected.

6. CONCLUSION

Conclusion

This study attempts to prove that the conditional c-score can explain conditional conservatism compared to c-score. The results obtained are hypotheses rejected, or in other words, this study cannot prove that Conditional C-scores explain conditional conservatism better than C-score Khan and Watts (2009).

Suggestion

Subsequent research can add a conditional c-score determinant, for example share ownership by executives, to represent factors that influence conservatism, namely the equity contract. Further research can also add the ratio of total private debt divided by total long-term debt as a representation of the factors that influence conservatism, namely debt contracts.
REFERENCES


Analysis of Stock Price Volatility in Indonesia:
Dividend Policy and Earning Management

Mery Kristiani
President University, Indonesia

Ika Simbolon
President University, Indonesia

Abstract
This research has a purpose to determine the influences of the dividend policy and earning management toward stock price volatility. The population in this research are all manufacturing firms listed in Stock Exchange in Indonesia. The technique of determining the sample using purposive sampling method and sample acquired 66 observations which come from 22 companies for the period of 2015-2017. The method used in this research is quantitative research methods. Simple regression is used to analyze the hypothesis in this research. The results of this research concluded that dividend yield and dividend payout ratio has significant effect towards stock price volatility while earning management has no significant effect towards stock price volatility.

Keywords: dividend payout ratio, dividend yield, earning management, stock price volatility

1. INTRODUCTION
Investor needs to do the investment to increase the welfare. Capital market offers investor the investment in stocks. The character of stock markets has become an attention for the investor. Stocks can be defined as certificates that companies issued to investor as a partial claim on company capital or the ownership shares of corporation.

Investors need to know the indicators that could affect the value of their investment. One of the indicator is stock price volatility. The fluctuation in volatility made the investors has different decisions in market. Volatility is caused by changes in trading volume, practices or patterns, which thus are driven by components for example adjustments in macroeconomic arrangements, change of investor’s tolerance of risk and increase uncertainty (Rajni and Mahendra, 2007).
Volatility is the indicator that is most frequently used to find the trends in the market (Gabriel, 2012). Volatility rises because the relevance of the new data as well as the degree in which the news surprises investors. However, economists and financial experts have expressed theories that the causes volatility. Some financial economists found the causes of volatility of stock was the new and unanticipated informations that would change the expected returns on stock (Engle, 1982).

The connection between dividend policy and stock price behaviour became interest of both academic and stock market traders (Frankfurter and Wood, 2002). Baskin (1989) indicated a fundamental theory related to the dividend policy toward stock price volatility. Dividend policy can be affected by product market risk, so controlling the variability in the earnings is needed. Dividend is a signal of market confidence towards the firm’s performance and it serves a set of information flow into the market.

Miller and Rock (1985) found that dividend payout has an informational content which suggest the good signals of firm’s future earnings of investors. In practical context, dividend payout decisions are interested and connected to other management decisions such as capital structure, capital planning, asset pricing, and mergers and acquisitions.

Earning management is one of the indicator to represent a broader sight about company’s business work and financial position. Earning management in Indonesia is determined which assist several findings in making investment decisions, and it shows the presence of market inefficiency (Suhardianto and Harymawan, 2011). Earning management is connected to financial accounting work and considered as a strong determinant of corporate activity (Arar et al., 2018).

Companies encourage to apply the earnings management to fulfill the expectation of stock market analyst (Arar et al., 2018). It’s because the investors usually look on the viewpoint of stock market analyst to look forward on the successful companies. The companies that fulfilled the investors’ expectation usually have higher profit or return, so it will influence the investor to invest in these companies shares, directing to higher shares and increase in the liquidity.

In this research, the researcher observes the relationship between dividend policy and earning management through the stock price volatility in emerging economy, Indonesia. Indonesia’s annual GDP (Gross Domestic Product) growth is contributed by industrial sector. The two most significant sub-sectors are mining firms and manufacturing firms, each being major pillars of the nation’s economy since the Nineteen Seventies, so being engines of economic change and development throughout Suharto’s New Order regime. GDP of Indonesia grew 5.1% in 2017 compared to last years. This research is arranged in medium-big industry market sectors which is listed as manufacturing companies in Indonesia Stock Exchange. As addition, dividend payment ratios of industrial products companies were reported to be a decreasing trend with one of the highest standards deviations in industry (Zainudin et al., 2017).

This research investigates the impact of dividend policy and earning management toward stock price volatility. The researcher tends to extend the previous research by Zainudin et al. (2017) by adding a new independent variable which is earning management. The research use 3 years data (2015-2017) in manufacturing company which are listed in Indonesia Stock Exchange (IDX).

The researcher want to investigate the influence of dividend policy and earning management to stock price volatility. Based on the background previously, then this study is titled “The Analysis of Stock Price Volatility in Indonesia: Dividend Policy and Earning Management”.

\footnote{https://www.indonesia-investments.com/culture/economy/general-economic-outline/industry/item379 access on Monday, November 5, 2018 at 18.45}

\footnote{https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG access on Monday, November 5, 2018 at 17.49}
2. LITERATURE REVIEW

Stock Price Volatility

The existence of stock markets becomes interesting because of the issue of whether stock prices reflect the fundamental values of companies or not. Investors will invest their money in the stock market because they want to make a profit (Al & Aziz, 2016). Consequently, profitable earnings is one of the most important indicator that will make investor becomes interested to do the investments.

Stock price volatility is one of the factor that affecting the stock price. Stock price volatility is usually determine the risk of common stock. While the volatility of a common stock is higher, the risk is higher. Volatility can called as a variation or deviation of the return of an asset from its mean (Kotze, 2014).

The past event that influenced the expected return of the stock and supported changes in the presumed degree of complexity (reduction rate) can make the changes of stock price. This phenomenon provides a new explanation for the evidence of excess stock price volatility (Shiller, 1992). Stock price volatility in line with the uncertainty about the future returns (Olsen, 2011).

One way to calculate the stock price volatility is to estimate the volatility from historical stock price data. High volatility shows unusual characteristics of supply and demand. Stock price volatility can be measured by the uncertainty about the results obtained from shares.

Dividend Policy Theory

One of the ways a firm turns its earnings to shareholder is declared dividend. Dividend policy refers to the decision of management on how much of the earnings are to be distributed to shareholders as dividends or in new opportunities for reinvestment. Dividend can be defined as something that should be paid for by mature, established companies, which are theoretically faced with a financial life cycle in which young companies meet comparatively abundant investment opportunities with limited assets so that retention dominates distribution, although developed companies are better candidates for paying dividends because they are more profitable and have less attractive investment (Deangelo & Deangelo, 2006). Dividend decision may affect firm value and shareholder wealth, dividend policy should be taken into account by a company.

The dividend payout ratio from any certain company reflects the dividend policy adopted by that certain firm. Payout ratio displays the share of income distributed and expressed as a net income ratio. McManus et al. (2014) found that the dividend payout ratio significantly influences stock returns while the dividend yield express additional signalling information.

There are several factors that influencing dividend policy. First, Baker et al. (2010) stated that manager have confidence about the factor that affect policy of dividend. The fact shows that the main determinants to maintain the dividend policy is that dividend policy should stable. The other factors in determinants of payout policy to be consistent include stability of earnings or cash flows, the pattern of past dividends, and the level of current and expected future earnings. Second, Sawicki (2003) stated that states companies have dividend policy in Asia countries, including Indonesia, that has firm-level effects on dividend policy and considers that past and expected revenue growth, adequacy of cash flow, collateralizable assets, and systematic risk are related to the payout ratio positively.
Related on the contest of agency cost theory, payment of dividend will minimize agency costs between the managers and shareholders (Moh’d, M. A., Perry, L. G., & Rimbey, J. N. (1995). When the payment of dividend is done, the manager has commitment to maximizing the investor investment fund without investing fund into risky unprofitable project.

Earning Management

Earning management could be used as a communication of management’s inside information to investor. It is also used to protect the company against the consequences of unexpected events. Earning management is a set of strategy to improve accounting earnings, which is achieved through managerial discretion over accounting choice and operating cash flows (Phillips et al., 2002). Earning management can be defined as the aspects to influence the accounting earnings which reported or interpreted, beginning from investment and production decisions that partly set the standard of economic earnings from the choice of accounting and the size of accruals when the periodic reports are served and at the end in actions that affect the interpretation of the reported earnings.

Earning Management is done to fulfill the needs of management’s interests by utilizing the weaknesses of internal accounting policies but not deviating the accounting principal which has applied generally. Because of that weakness, some parties make standardization to conclude that earnings management could be said as fraudulent. However, there are some parties who argue that earning management actions could not said as fraudulent, because they still accept the accounting principles in general.

3. RESEARCH METHOD

The population in this study is manufacturing firms listed in Indonesia Stock Exchange (BEI). The sample is some portion of the characteristics possessed by the population. The sample in this research is decided by using purposive sampling approach based on the criteria that have been set, as follows:

1. Manufacturing firms that have been listed in Indonesia Stock Exchange (IDX) for period year 2015-2017.
2. The company must have all the data needed during the 2015-2017 period.
3. Manufacturing firms that use IDR as the currency in their financial statements.

The researcher used secondary data which getting from financial statement, statistical report which have been published in the Indonesia Stock Exchange (IDX) to make this research. This data collection technique is documentation method. It means the data collection technique is not directly addressed the research subject.

In this part, the researcher will clarify about the analysis process of data used for the research. In order to know is the dividend policy and earning management affect the stock price volatility is done by simple linear regression analysis techniques. The data analysis tool used is SPSS version 24.

Stock Price Volatility (SPV)
Stock price volatility can be measured by the calculation from the previous research by Zainudin et al., (2017). In every year, the range is separated by the average the low and the high and after that raised to the second power. At that point, the average measures of variance for every single variable year are changed over into standard deviations by utilizing a square root transformation.

\[
SPV = \sqrt{\frac{\sum_{i=1}^{n}
(H_i-L_i)/\left(\frac{H_i+L_i}{2}\right)^2}{n-1}}
\]

where:
- \( SPV \): Stock Price Volatility
- \( H_i \): The average of the high of stock price for monetary year \( i \) for each company.
- \( L_i \): The average of the low of stock price for fiscal year \( i \) for each company.
- \( N \): Number of years of data sample

**Dividend Yield (DY)**

Dividend yield (DY) is calculated by total dividend per share (DPS) declared during the monetary year divided by the market price of the company has stock.

\[
DY = \frac{\sum_{i=1}^{n} \frac{DPS_i}{MV_i}}{n}
\]

where:
- \( DY \): Dividend Yield
- \( DPS_i \): Dividend per share for monetary year \( i \)
- \( MV_i \): Market value for year \( i \)
- \( n \): Number of years

**Dividend Payout Ratio (DPR)**

It can be measured by the proportion of total residual profit distribute to shareholders. For computing Dividend Payout Ratio (DPR), the total of cash dividend paid to common stockholders or investors is divided by the net income after tax for every year. At that point, the average for the all out number of years is then acquired.

\[
DPR = \frac{\sum_{i=1}^{n} \frac{DPS_i}{E_i}}{n}
\]

where:
- \( DPR \): Dividend Payout Ratio
- \( DPS_i \): Dividend per share for fiscal year \( i \)
- \( E_i \): Net income after tax for year \( i \) or also called as Earning Per Share (EPS) for fiscal \( i \)

**Earning Management**

Earning management is measured by the following four equation by *Modified Jones Model* Dechow et al. (2012):

1. \( TA = NI- CFO \)
2. \( \frac{TA_{it}}{A_{it-1}} = \beta_1 \left( \frac{1}{A_{it-1}} \right) + \beta_2 \left( \frac{\Delta \text{REV}_{it}}{A_{it-1}} \right) + \beta_3 \left( \frac{\text{PPE}_{it}}{A_{it-1}} \right) + \epsilon \)

3. \( \text{NDA}_{it} = \beta_1 \left( \frac{l}{A_{it-1}} \right) + \beta_2 \left( \frac{[\Delta \text{REV}_{i,t} - \Delta \text{REC}_{i,t}]}{A_{it-1}} \right) + \beta_3 \left( \frac{\text{PPE}_{i,t}}{A_{i,t-1}} \right) \)

4. \( \text{DA}_{it} = \frac{TA_{it}}{A_{it-1}} - \text{NDA}_{it} \)

Where:
- \( TA \): Total Accruals
- \( \text{NDA} \): Non Discretionary Accruals
- \( \text{DA} \): Discretionary Accruals
- \( \text{NI} \): Net Income
- \( \text{CFO} \): Cash Flow from Operation
- \( A\text{-I} \): Assets of Previous Year
- \( \Delta \text{REV}_{it} \): The changes in revenue of company \( i \) from year \( t-1 \) to year \( t \)
- \( \Delta \text{REC}_{it} \): The changes in account receivable of company \( i \) from year \( t-1 \) to year \( t \)
- \( \text{PPE}_{it} \): Property Plant Equipment (also known as fixed asset) in year \( t \)

**Hypothesis Testing**

The researcher started with a basic model as follows:

- \( \text{SPV} = \alpha_1 + \beta_1 \text{DY} + \epsilon_1 \)
- \( \text{SPV} = \alpha_2 + \beta_2 \text{DPR} + \epsilon_2 \)
- \( \text{SPV} = \alpha_3 + \beta_3 \text{EM} + \epsilon_3 \)

Where:
- \( \text{SPV} \): Stock Price Volatility
- \( \text{DY} \): Dividend Yield
- \( \text{DPR} \): Dividend Payout Ratio
- \( \text{EM} \): Earning Management

**T-test**

T-test is used to know whether the independent variables have a significant effect on the independent variable or not. The significant degree used is 0.05. When the probabilities amounted < 0.05, it indicates that an independent variable partially affects the dependent variable. From the result of data analysis, the result is obtained as follows:

**Model-1**

**Table 1. T-Test Model 1**

<table>
<thead>
<tr>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>DY</td>
<td>0.436</td>
<td>0.072</td>
<td>0.601</td>
</tr>
</tbody>
</table>

Source: Researcher taken data from SPSS 24, Data Processed 2018
Regression model 1 is used to know the influence of dividend yield to the stock price volatility. Based on the Table 1, the significant value amounted 0.000 which is less than 0.05. It means dividend yield has a significant impact to stock price volatility.

Model-2

Table 2. T-Test Model 2

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>DPR</td>
<td>B 0.743</td>
<td>Std. Error 0.092 Beta 0.727</td>
</tr>
</tbody>
</table>

Source: Researcher taken data from SPSS 24, Data Processed 2018

Regression model 2 is used to indicated the influence of dividend payout ratio to the stock price volatility. Based on the Table 2, the significant value amounted 0.000 which is less than 0.05. It means dividend payout ratio has a significant impact to stock price volatility.

Model-3

Table 3. T-Test Model 3

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>EM</td>
<td>B 0.007</td>
<td>Std. Error 0.043 Beta 0.032</td>
</tr>
</tbody>
</table>

Source: Researcher taken data from SPSS 24, Data Processed 2018

Regression model 3 is used to indicate the influence of earning management to the stock price volatility. Based on the Table 3, the significant value amounted 0.856 which is higher than 0.05. Beside the t-test has positive amount, it means Earning management has no significant impact to stock price volatility.

5. RESULT AND DISCUSSION

Dividend Policy has an Affect through the Stock Price Volatility

Regression model-1 is used as the result to assume Stock Price Volatility on Dividend Yield and regression model-2 is used as the result to assume Dividend Payout Ratio. As shown in Table 1 and 2 indicates that Dividend Yield and Dividend Payout Ratio give effect to the stock price volatility which both has same significant value amounted 0.000 which reflects less than 0.005. Regarding to the test, it could be stated the dividend policy that measured by dividend
yield and dividend payout ratio has significant influence on stock price volatility. This research in accordance with the previous research that conducted by Zainudin et al. (2017).

Related to the previous research, dividend payout ratio to stock price volatility means that higher dividend payout ratio in a company will affect the lower stock price volatility. In accordance with signal theory, the declaration of dividend will provide the information about company has performance which have the results in a stock price reaction. The higher of dividend payment will increase the signal of company has profitability, therefore reducing the risk in investing and affect the volatility of stock price.

The fact is the company who pay lower dividend for the reinvesting the earning can resulting higher volatility. In opposite, while company pay higher dividend, it will make the earning have larger amount that will appreciate in terms of payouts and capital gains can be lower. It means the change price will be higher because of its nature.

Earning Management has an affect through the stock price volatility

Regression model-3 is used as the result of the influence of earning management to the stock price volatility. As shown in Table 3, the significant value amounted 0.868 which reflect more than 0.005. It can be concluded that earning management has not an affect through stock price volatility.

This result means that there is no significant effect and not provide the information of the earning management on stock price volatility. This research supports the research by Richardson et al., (2001) and Xie (2001) that stated the negative impact from investors that do not anticipate the earning management in determining company’s stock price.

The earning management generally has not influence to stock price volatility because when investor buying stock or doing investment, they don’t see on how company get the earning. It’s because the investor’s point of view on the amount of earning which stated in the financial statement. From this result, it can be stated that earning management has not give the effect to the stock price volatility.

6. CONCLUSION

The objective of this research is to examine the influence of dividend policy which measured by determining dividend yield and dividend payout ratio toward stock price volatility and the effect of earning management on the stock price volatility. This research can be concluded as follows:

1. Dividend policy which getting from the determination of dividend yield and dividend payout ratio toward stock price volatility, can be concluded that give effect to the stock price volatility which both has same significant value amounted 0.000 which reflect less than 0.005. Dividend policy that determined by the company will influence stock price volatility. By looking on dividend policy and the capability of the company in the future, investors believe that they will get profit consistently.

2. The influence of earning management toward stock price volatility with the significant value amounted 0.868 which reflect more than 0.005. It can be concluded that earning management has no effect to stock price volatility. It means that company who doing earning management will not affect its stock price volatility.
REFERENCES


Does Job Satisfaction Mediate the Relationship Between Opportunities and Organizational Commitment?

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Abstract

One of the difficult challenges for supervisors is to maintain employee commitment in an organization, where employee commitment is needed to improve their performance and make themselves more responsible for their job. However, there are a number of things that concern supervisors regarding the low commitment of employees in the organization when supervisors provide opportunities to employees. Other factors that are considered by researchers are job satisfaction, which this factor could makes employees stay committed. The purpose of this study is to conduct empirical evidence about the effect of job satisfaction on the relationship between employee opportunities and organizational commitment. The samples used in this study are 167 respondents collected from service and manufacture company in Indonesia. The data was analyzed using Structural Equation Model-Partial Least Squares (SEM-PLS) analysis. The result shows that opportunities for development is directly associated on organizational commitment in service and manufacture company, meanwhile recognition is directly associated on organizational commitment in service company, that job opportunities indirectly influence affective organizational commitment through effect on job satisfaction, and that recognition opportunity does not predict affective organizational commitment through job satisfaction in manufacture company.

Keywords: development, recognition, promotion, job satisfaction, organization commitment, service company, manufacture company.

1. INTRODUCTION

In the current era of globalization there is a lot of competition between the business worlds that has developed very rapidly. When building a new business or company, of course as a
founder will recruit new employees very carefully. This really needs to be done, because employees are company assets where every day employees manage the business to reach the specified target. A company will never be able to carry out its functions if it does not have employees. That is, employees determine the success of a business or company. Companies that have succeeded in their countries even in the world always attach importance to the welfare of their employees. The director of Mandiri Bank said that over the past 2.5 years it was building a team that worked happily, participated, productively and made human resources are to be focus of the strategy to build capabilities in competing in the long term.

Management has full responsibility for each organization in order to achieve the company's targets. An advanced organizations are those who realize the importance of developing human resources. Thus, if an organization wants to advance, the organizations human resources must be developed (Kaswan, 2012). Organizational commitment reflects employees' organizational commitment and the loyalty of employees of enterprises, so that it can affect employees’ performance in enterprises (Ferguson and Reio, 2010). The role of organizational commitment is important for employees because employees who have a high commitment to the organization will do the work optimally and more responsibly (Labatmediene et al., 2007). Low commitment in the organization make employee performance decrease, because besides not optimal it also affects their intention to leave (Kwon and Banks, 2004). Commitment is the attitude of someone who reflects himself to do continuously and responsibility (Morrow, 1993). Organizations really need employees who have high commitment to carry out their activities in achieving organizational goals. In addition, it arises with behaviors that lead to company goals and has a desire to continue to join the company for a long time, because they need a workplace that has a potential component in increasing productivity. It will give benefit to the company because the company prioritizes employees who are highly committed.

The research from Elegido (2013) referred an employee commitment and loyalty can arise because of the results of a manager's effort to maximize human resources such as providing greater motivation and improving organizational performance. This is in line with the discussion on previous research that we made as our main article. The previous research Cicekli and Kabasakal (2017) has examined the relationship between organizational commitment to opportunities (i.e. promotion, development, recognition) and also by moderating alternative opportunities. The author used opportunities for promotion, development, and recognition as independent variables because these opportunities are factors that make organizational commitment increase. Organizational commitment used in previous research is affective commitment which are not continuous commitment or normative commitment. That's because affective commitment is a natural commitment based on employee desires. The author also adopts the perspective of social exchange theory because opportunities at work are a source of social exchange. George C. Homans said that the basic principle of social exchange is "distributive justice", and social exchanges explain clearly about human relations where someone can have a reward that is comparable to someone's sacrifice (Fremeaux and Michaelson, 2011). It is make sense that the higher a person's commitment, the higher the opportunities he/she gets.

The survey results of 102 white-collar employees consisting of 56 percent of women and 28 percent of managers in manufacturing and service companies showed that development and recognition opportunities had a direct relationship to the organization commitment, while promotion opportunities did not directly impact to organizational commitment. Besides, it has a good impact for development and recognition because both can make their commitments increase within the organization. When the test is conducted by moderating alternative
opportunities, the results show that the promotion has a negative influence on commitment. This study also uses the same sample as previous studies which are employees who work in service companies (public accounting firm) and manufacture companies (steel manufacture company) which aims to find out how the effect of job satisfaction on employee opportunities for their commitment.

Previous studies have examined the relationship between organizational commitment and opportunities for promotion, development and recognition. The authors provide two proofs that opportunities have a significant impact on organizational commitment and also by moderating alternative opportunities. However, previous research has not determined the relationship between opportunity and organizational commitment with a more comprehensive model (Cicekli and Kabasakal, 2017). Thus, it can be interpreted that when upper management has provided opportunities to employees, they are still not committed. Therefore, other factors are needed as mediation to connect between opportunity and commitment. Learning from the success of large and well-known companies, upper management always focuses on human resources which are the welfare of employees and comfort, which is more often heard as job satisfaction. This is important for every company to provide job satisfaction to employees, especially for the upper management because this clearly affects their commitment in the organization. Job satisfaction and affective commitment are factors often associated with the intention to leave (Kalbers and Cenker, 2007).

Job satisfaction according to Robbins (1996) a person with a high level of job satisfaction shows a positive attitude towards the job, on the contrary a person who is not satisfied with his work shows a negative attitude towards his work. Stated from Gupta et al (2014) Organizational success depends on the effectiveness of the manpower, which in turn relies largely on employee job satisfaction. Based on the background of the problems above, we can see that a group of employees is not enough if only given the opportunity in the company, but there is an influence from job satisfaction such as the behavior of managers/leader/supervisor or the work environment. As in the research from Masum et al (2016) it has been examined that opportunities for fair promotion and additional benefits can increase job satisfaction for nurses in private hospital Turkey. Supported by other research from Testa (2001) states that job satisfaction has a positive relationship with affective commitment. By looking at these statements, the authors want to take the motivation of this study, which to examine the role of job satisfaction as a mediation in the relationship between opportunities for promotion, development and recognition of organizational commitment. The researchers concluded that when employees easily get high-level jobs, but they do not feel comfortable from their environment or from the boss, they will not commit to the job. Therefore, this study is needed the influence of job satisfaction in the relationship between opportunity and organizational commitment.

2. LITERATURE REVIEW

Organizational commitment as the important aspect at work

Organizational commitment is the emotional attachment of employees where they have a strong desire to remain a member in carrying out their shared vision and mission (Cullen et al., 2003). Through the book Greenberg and Robert (2003) had said that organizational commitment is the attitude of employee loyalty to the company in maximizing its performance and carrying out all its work or responsibilities. Commitment is a condition in which a person
makes an agreement / attachment to both themselves and others. Commitment is seen as an attitude of loyalty shown by someone on a subject of commitment (Morrow, 1993). Thus when the work of the employee is not achieved or fulfilled, that commitment makes the employee motivated again for a good performance. Organizational commitment to each employee is very important because when employee has committed to its organization, they can be more responsible for his work that compared to employees who have no commitment.

As the research from Kwon and Banks (2004) shows that commitment has a positive influence on high motivation and individual behavior towards the organization. Therefore, the company has high expectations for the whole sections that are part of the company, especially the workers in order to grow productivity in the workplace to get a feedback from their maximum results. In the service company the role of organizational commitment came from the researchers Irmak (2009) which he conducted the research with respondents who work in hotels. He stated that guess service is the first people who interact and serve directly with the guest and take full responsibility for the maintenance of hotel guest things. Ling and Lee (2012) also stated that to get employee satisfaction and make clients loyal to us for the high-quality services provided to them, the job performance of the services of employees at the Public Accounting Firm to their clients is important. Based on the research above, organizational commitment has proven that it is very important for every company to have commitment in the organization, so that employees and companies have mutual benefits on both parties.

**Affective commitment as the organization commitment**

Employee organizational commitment is defined as a relationship in the workplace between employees and organizations (Allen and Grisaffe, 2001). Organization commitment is divided into three aspect commitment; affective commitment, continuance commitment, normative commitment (Meyer and Allen, 1991a). Based on his book Mayer (2016) affective commitment refers to someone’s emotional which the desire of employee to do something in that organization, meanwhile continuance commitment and normative commitment tend to employee’s commitment that leads them to be forced to stay. Continuous commitment is more directed to someone who sees because of the benefits received if they remain committed to the organization (Chang, 1999). While still the same discussion in Mayer (2016) book stated that the normative commitment is the feeling of individuals tend to remain in the organization is an employee's responsibility.

Meyer and Allen (1997) Also define affective commitment is related to the participation of employees which based on emotional relationships in organization. Through the research from McCallum et al (2014) has shown that affective commitment has a positive relationship to the network within the organization. As well as in this study, employees who are always committed to participating in the organization will get opportunities in the company. Grossi et al (2015) Stated that affective commitment refers to be one of the most influential on job performance through the consistency of employee. Our focus for this study is that adequate job satisfaction can generate employee loyalty and attachment without any burden on the organization. By looking from those statements, affective commitment is considered as a defense for employees of organizations to pursue their goals (Mayer and Allen, 1991) where it is closely related to opportunity because of its strength in employee involvement. Therefore this paper tend to be more concern with affective commitment rather than other commitment.
2.3. Opportunities on organizational commitment

Within the previous research evidence from Cicekli and Kabasakal, (2017) recognition opportunities, and development opportunities are supported on organization commitment. The result show that the increasing of organizational commitment was caused by the influence of opportunities. Development opportunities through Newton et al (2014) is opportunities where employees learn the work by conducting training in theory and practice so that they can contribute to their work, until their potential finally develops. As the definition above, we consider development opportunities is the way to make the company is going forward and company's development by making its employees to have many skills. From an employee's point of view, development opportunities are used as a goal for them in order to get a promotion, then their salary would be high and could be as an advantaged for them to progress on themselves.

Promotional opportunities are determined by how the employee can produce a good performance and development in his career, it does not determined by the length of time spent on his job (Ling and Lee, 2012). Many techniques are carried out in getting development opportunities, one of techniques is a training program in the company. As stated from Ling et al (2014) training opportunity positively influence to organizational commitment. Research result Choo and Christine (2015) found there is a significant relationship in training programs on job satisfaction. That means, by providing training programs to employees, they will be happy and satisfied because management can help them to have promotional opportunities, which will make employees' commitments even greater.

Another opportunity is recognition opportunity. In the world of work, employees are required to have a good work ethic. This was caused many companies to motivate their employees in various ways, one of which is recognition opportunities. Many people accept jobs because they are interested in the salary offered, but not infrequently they eventually leave for a better appreciation and recognition (Chew and Chan, 2007). Rewards and recognition are one of the most important elements in implementation of company strategy (Johri et al., 2015). The research that conducted from public and private-sector employees working in China Nazir et al (2018) Autonomy is one of intrinsic rewards that have significant relation on commitment. Besides impacting on employee commitment, recognition also affects job satisfaction (Gu and Siu, 2008). Recognition often feels more personal and it has a high memorial value, because of its unpredictable nature, and cannot be represented by other parties. The general objective is to make employee performance better and more stable so that it can give benefit both to the company and employees.

Recognition opportunities are given to the employee who have a good progress in work and could achieve the certain target. When they had achieve the target, there is such behavior that encourages employee till finally they could reach their target, which is commitment (Castro et al., 2016). However, as researched by Johri et al (2015) there is a positive relationship between facility management regarding the nature of employees and improve the quality of employees in terms of knowledge, productivity and also their commitment. Supported by another research Chew and Chan (2007) found that recognition has significant relationship on organization commitment, because when employee performance is recognized and gets appreciation from supervisors, they will prefer to stay even if their salary is low.

Promotional opportunities have a high value in the aspects of workers and careers. It is sometimes easy to influence the characteristics of other workers such responsibilities. Workers who are very productive and have great efforts at work they will get a reward in the form of
promotional opportunities. Thus, in the case of increasing the ability and credibility of employees in the company, promotional opportunities are one way to motivate employees. Motivation comes up by various factors internal and external, which might be personal or situational Wiley (2006). As the research that has been examined, it is said that promotion opportunities are identified as one of the factors of eight motivational factors that influence in increasing job satisfaction (Maeretz and Griffeth, 2004). The research in Pakistan Malik et al (2012) found that promotion has an influence on job satisfaction. Some employee tend to choose overtime at the office to get a higher salary. Therefore, commitment should increase as the career or promotion opportunity. Employees who have longer working hours will automatically have more experience and expertise, so that greater responsibility will be obtained as well as greater promotional opportunities (Bratti and Staffolani, 2005). When the employee wants to be promoted, they must participate and commit to their work, where the promotion opportunities that will be used as their goals and motivation. As we know, the statement from theories above state that opportunities in companies have a positive relationship to organizational commitment. Organizational commitment responds positively when employees get their opportunities in the company. In addition, organizational commitment in this study is affective commitment aims as an emotional strength felt by employees so as to produce optimal results in the company. From the explanation above, we could hypothesize:

H1: Development opportunities have positive relationship on organizational commitment in both service company and manufacture company

H2: Recognition opportunities have positive relationship on organizational commitment in both service company and manufacture company

H3: Promotion opportunities have positive relationship on organizational commitment in both service company and manufacture company

Job satisfaction as mediation between opportunities and commitment

As we know many researchers have examined job satisfaction. Job satisfaction according to Gibson et al (2009) is a feeling possessed by an individual for being fulfilled in his sense of inner and self-satisfaction with the world of work accompanied by positive support from his work. Job satisfaction is the most important factor in forming a good strategy for the company. Because job satisfaction can affect employee performance and productivity. The level of employee satisfaction is directly proportional to the productivity of the company (Katzell et al., 1992). Job satisfaction can not only be ascertained if the employee works in a large or well-known company. Many of those employees who work in well-known companies feel dissatisfied because the work they do is not comparable to what they receive or they get large facilities and salaries but the work is not in accordance with the size of the position. It depends on how the manager could lead their employee based on their leadership style. Therefore, some of them do not commit to the company because it is not supported by perceived job satisfaction. Past research have found that various cultures will influence the leadership prototype, which automatically affects the employee's affective organizational commitment (Hong et al., 2016). Which in their research, consideration leadership style (i.e. people-oriented) has significant relation on affective organizational commitment in USA.
Mayer and Allen (1997) have defined affective commitment as an employee involvement in organization, which in this study used the social exchange theory because this theory have a great influence on job satisfaction. Social exchange theory suggests that good human resource services can maintain interpersonal relationships between two entities (e.g. organizations and employees) (Gouldner, 1960). Job satisfaction is considered the desired result of work. The ability of an employee to identify with his organization to help maintain their membership is called affective commitment (Kumar and Giri, 2015). The theory of social exchange relations states that when an employee is treated fairly and satisfactorily (in this case, affective commitment) they tend to retaliate. As in the obligation of supervisor, they need to provide and support the employee needs, so the employee will feel satisfy with their job (Saha and Kumar, 2018). As stated from Alfes et al (2013) human resources management practices have positive relations on job satisfaction also linked to employees’ intention to stay.

In other side Ling et al (2018) also proved with their research, the result show that higher reward offered leads higher satisfaction to employee. The more an employee feels comfortable and satisfied with his job, the more he works and thinks creatively for the progress of the company. According to the researchers, development opportunities (Choo and Christine, 2015), recognition opportunities (Ling et al., 2018), and promotion opportunities (Maeretz and Griffeth, 2004) have positive relation on job satisfaction, likewise the positive relationship between job satisfactions on organizational commitment (Kalbers and Cenker, 2007). However, the review in previous research Cicekli and Kabasakal (2017) found insignificant relationship between promotion opportunities on organizational commitment moderated by alternative opportunities. Thus, the author would like to make the job satisfaction as mediation in the relationship between the opportunities on organizational commitment, by knowing the role of job satisfaction can make the employee's commitment higher in their company. Therefore, it is hypothesize as:

H4: The relationship between (a) development opportunity, (b) recognition opportunity, (c) promotion opportunity, and organizational commitment is mediated by job satisfaction in both service company and manufacture company, such the employee with greater job satisfaction would lead to greater commitment.

Research Model

Based on our review of the literature and the hypotheses development above, we constructed the research model in the following graph to figure out the relationship between opportunities, job satisfaction, and organizational commitment.
3. METHODS

**Independents Variable**

The independent that will be tested in this study is opportunities that consist of promotion opportunities, recognition opportunities, and development opportunities. The opportunities refers to be factors which improve the employee commitments. Providing opportunities for development, rewards, involvement and career paths that promised by the company to employees can influence their commitment and the performance that will be produced. If the employee is not loyal to the company, it will adversely affect the company. Employees who have high commitment will receive almost all the tasks and responsibilities of the work given to them. Also loyalty to the organization is an evaluation of commitment, as well as the emotional ties and attachments between the organization and employees. Employees with high commitment feel the emergence of loyalty to be part of the organization.

**Mediating Variable**

The mediating variable in this study was job satisfaction. This job satisfaction has the role which connect the variables between opportunities and organizational commitment. It is also one of the important factors for the employees' productivity to be able to run according to the achievement of the company's goals. In this case, the job satisfaction have a positive relationship to opportunities where the employee gets opportunities in the company he will feel satisfied, and job satisfaction can also be measured by various factors that ultimately employees will be committed to work and organization if they feel satisfying.

**Dependent Variable**

The researcher used the variable dependent for this study was affective commitment. Affective commitment is a commitment made by someone based on the desire of someone to remain in the organization. On an affective commitment basis has different behavior with employees on a continuance basis. Employees who wants to be in the organization would have the desire to try to reach the goals of the organization. Conversely, employees who are forced to be in the organization will avoid financial losses and other losses, so that they may only do business that is not optimal. This affective commitment will provide evidence of the results of the relationship between opportunity and mediation of job satisfaction.

**Sample and Procedure**

In this study, we used the primary data as our type of study were obtained based on the collecting of questionnaires using the Likert Scale. Questionnaires were distributed to more than 350 questionnaire and collected around 167 respondents which 53.89% were from service
companies and 46.10% were manufactured companies. Sources of data from this study are the employee who work in public accounting firm and steel manufacture company. The aim we took these companies as our sample because as the prior research the promotion opportunities were not supported on affective commitment when moderated with alterative opportunity. In terms of promotion, public accounting firm and steel manufacture company that we used is different. Employees who work in public accounting firm have more provide career growth rather than steel manufacture company. As stated from Kram (1988) a mentor in a public accountant firm provides several career-related benefits to junior accountants. This growth could involve promotions within the same firm or advancement through changing firms (Parker et al., 2017). Another finding from Van den Bergh and Carchon (2003) non-family employees experience feelings of distributive injustice in family companies because they may not receive the same promotional opportunities, privileges, or financial rewards. The questionnaire that will be used was pilot test questionnaire that has been revised. The questionnaire consists of 19 questions and it is about opportunities, job satisfaction, and affective commitment while the researcher need to collect minimum (95) respondents from public accounting firm and steel manufacture company. From many types of sampling, the researcher chooses purposive sampling which is really closed to the sample technique. Since this topic talks about internal problems within the company, so the researcher need at least the employees or student that have been internship in company and public accounting firm. In this case, researchers will know the responses of respondents in terms of their level of commitment to each opportunity given, as well as the influence when the emergence of job satisfaction.

**Measurements**

This study use opportunities as independent variables. In the measurement of independent variables, the researcher adopted the measurement that has been modified by Cicekli and Kabasakal (2017) which was consisting of 10 items scale (DO = 5-items, RO = 3-items, PO = 3-items). These items read, “My job gives me the chance to learn new things” as one of DO scale, “Personal attention from upper management”, as one of RO scale, “What is the likelihood that you will be promoted to a higher position with your present employer in the next five years?”, as one of PO scale. The mediating variable that we use in this study was job satisfaction. This variable connects on organizational commitment which has been modified by Kalbers and Cenker (2007) and as the mediator for opportunities to organizational commitment. The measurement of job satisfaction or JS scale consisting of 5-items and one of the statements of JS scale reads, “Most days I am enthusiastic about work”. The next variable was dependent variable which used for this study was affective commitment. To measure the dependent variable, the researcher need 3-items which have been modified by Kalbers and Cenker (2007). One of the measurements read “I would be very happy to spend the rest of my career in this organization”. This research used Five items to measure on Likert scale ranging from number 1 = strongly disagree to number 5 = strongly agree.

**Statistical Analysis**

Data analysis is the process of collecting, compiling, and processing data on information found along with findings so that researchers are able to interpret the study. Following by our research, we could see that the right analysis used for this research was Structural Equation
Modeling and Partial Least Squares (PLS) are used for the alternative methods for managing data. The researchers choose SEM since this research used the mediating variable, well according to Capeda (2016) SEM could give the significant effect when using PLS for mediation variable. Stated by Hair et al (2013), using SEM-PLS as statistical tools is quite significant. Since the statements supported the criteria for SEM-PLS, so the software used for this study to run the data was Warp PLS software (Version 3.0).

4. RESULT AND DISCUSSION

Demography Analysis

Based on the results of the research that has been done, the results of the study presented in the form of presentation of data in accordance with the measurement results done before. The data in this study came from primary data in the form of questionnaires submitted to employees who work at service company and manufacture company. Data demographic consist of 6 control variables (i.e. age, gender, education, socioeconomic status, and tenure). The detailed information of demography of the respondents are summarized in the Table 4.1 below.

<table>
<thead>
<tr>
<th>Table 1. Demographic details of the respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Service Company</strong></td>
</tr>
<tr>
<td><strong>Gender</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td><strong>Age Groups</strong></td>
</tr>
<tr>
<td></td>
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<td></td>
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<td></td>
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<tr>
<td><strong>Education</strong></td>
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<td></td>
</tr>
<tr>
<td><strong>Tenure</strong></td>
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<td></td>
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<tr>
<td></td>
</tr>
<tr>
<td><strong>Income</strong></td>
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<td></td>
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</tr>
</tbody>
</table>
Measurement Model Analysis

To assess the relationship between steps and construction as stated earlier about the measurement model by assessing the validity and reliability of actions (indicators) relating to certain constructions. A valid measuring instrument will have a small error rate so that the numbers it produces can be trusted as actual numbers or numbers that are close to the actual state. In order to find out how an indicator can be declared valid, researchers have tested convergence and validity. As stated from Hair et al (2010) in the measurement of convergence validity there are several factors used to measure the validity such as loading and Average Variance Extracted (AVE). For the initial inspection of the matrix loading factor is approximately 0.30 is considered to have fulfilled the minimum level, and for loading factors of approximately 0.40 is considered better, and for loading factors greater than 0.5 is generally considered significant. In this study the limit of loading factors used was 0.4. While the standard value of AVE should be greater than 0.50 to be stated as valid. In other side, to increase AVE value, we could drop some of the loading factor’s value which less than 0.4 because AVE was supported by loading factor’s value on 0.40 to 0.70. The result from Table 4.2.1 shows that some of the loading has been drop by the researcher and it increases the value of AVE ranging from the smallest which is 0.557 to the highest 0.781 means that it becomes evidence of adequate convergent validity.

Table 2. Reliability and Validity

<table>
<thead>
<tr>
<th>Latent Variable</th>
<th>Mean</th>
<th>S.D</th>
<th>Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Development Opportunity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Composite Reliability = 0.858; AVE = 0.554)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DO1</td>
<td>4.31</td>
<td>0.87</td>
<td>0.795</td>
</tr>
<tr>
<td>DO2</td>
<td>4.0</td>
<td>0.85</td>
<td>0.815</td>
</tr>
<tr>
<td>DO3</td>
<td>4.03</td>
<td>0.81</td>
<td>0.836</td>
</tr>
<tr>
<td>DO4</td>
<td>4.09</td>
<td>0.83</td>
<td>0.731</td>
</tr>
<tr>
<td>DO6</td>
<td>3.58</td>
<td>1.05</td>
<td>0.489</td>
</tr>
<tr>
<td>Recognition Opportunity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Composite Reliability = 0.863; AVE = 0.678)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RO1</td>
<td>3.22</td>
<td>1.10</td>
<td>0.809</td>
</tr>
<tr>
<td>RO2</td>
<td>3.66</td>
<td>0.91</td>
<td>0.853</td>
</tr>
<tr>
<td>RO3</td>
<td>3.79</td>
<td>0.86</td>
<td>0.807</td>
</tr>
<tr>
<td>Promotion Opportunity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Composite Reliability = 0.914; AVE = 0.781)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PO1</td>
<td>3.77</td>
<td>1.01</td>
<td>0.837</td>
</tr>
<tr>
<td>PO2</td>
<td>3.58</td>
<td>0.87</td>
<td>0.901</td>
</tr>
<tr>
<td>PO3</td>
<td>3.63</td>
<td>0.99</td>
<td>0.911</td>
</tr>
</tbody>
</table>
Job Satisfaction (Composite Reliability = 0.870; AVE = 0.575)

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>JS2</td>
<td>3.39</td>
<td>1.05</td>
<td>0.657</td>
</tr>
<tr>
<td>JS4</td>
<td>3.26</td>
<td>0.98</td>
<td>0.767</td>
</tr>
<tr>
<td>JS5</td>
<td>3.61</td>
<td>0.79</td>
<td>0.713</td>
</tr>
<tr>
<td>JS6</td>
<td>3.47</td>
<td>0.87</td>
<td>0.800</td>
</tr>
<tr>
<td>JS7</td>
<td>3.44</td>
<td>0.97</td>
<td>0.840</td>
</tr>
</tbody>
</table>

Affective Commitment (Composite Reliability = 0.837; AVE = 0.632)

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>AC1</td>
<td>2.93</td>
<td>1.12</td>
<td>0.825</td>
</tr>
<tr>
<td>AC2</td>
<td>2.91</td>
<td>1.09</td>
<td>0.790</td>
</tr>
<tr>
<td>AC4</td>
<td>3.46</td>
<td>0.86</td>
<td>0.767</td>
</tr>
</tbody>
</table>

According to Sholihin and Ratmono (2013) when the square root of the AVE construct has a higher value than other constructs then data can be considered as valid data. Followed by the researchers from Fornell and Larcker (1981) states that if the AVE squared value and the latent variable correlation value in the same column and the AVE value is greater than the correlation value of the other latent variables, the researcher states as discriminant validity. For instance, the square root of AVE from variable latent of DO is (0.744) which this value is higher than 0.369 and 0.509 so, it can be accepted because it is fulfilled the criteria of discriminant validity.

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Table 3. Discriminant Validity</td>
<td>DO</td>
<td>RO</td>
<td>PO</td>
</tr>
<tr>
<td>Development Opportunity</td>
<td>(0.744)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recognition Opportunity</td>
<td>0.369</td>
<td>(0.823)</td>
<td></td>
</tr>
<tr>
<td>Promotion Opportunity</td>
<td>0.509</td>
<td>0.381</td>
<td>(0.884)</td>
</tr>
<tr>
<td>Job Satisfaction</td>
<td>0.431</td>
<td>0.344</td>
<td>0.316</td>
</tr>
<tr>
<td>Affective Commitment</td>
<td>0.405</td>
<td>0.314</td>
<td>0.244</td>
</tr>
</tbody>
</table>

Diagonal element: square root of AVE; off-diagonal: correlation between constructs.

*Significant at p < 0.01

Table 4.3 also describes positive significant correlations between development opportunity with affective commitment (r = 0.405; p <0.1) suggesting that development opportunity is an important variable in enhancing affective commitment. In addition, the table shows that job satisfaction is positively correlated with affective commitment (r = 546; p < 0.1) suggesting that affective commitment can be improved by increasing job satisfaction. After determined the validity of data, the researcher need to measure another measurement which reliability of the constructs such composite reliability and cronbach’s alpha in order to make the data more valid (Sholihin and Ratmono, 2013). In this case, composite reliability and cronbach’s alpha shoud be higher than 0.70 and the version specified by Nunnaly and Bernstein (1994) stated that the value at 0.60 is still acceptable. In this study the limit of cronbach’s alpha used was 0.6.
Table 4. Reliability

<table>
<thead>
<tr>
<th>Cronbach's alpha</th>
<th>DO</th>
<th>RO</th>
<th>PO</th>
<th>JS</th>
<th>AC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.789</td>
<td>0.762</td>
<td>0.859</td>
<td>0.813</td>
<td>0.708</td>
</tr>
</tbody>
</table>

Structural Model Analysis

To test the results of our hypothesis statement we use structural model analysis, especially to test whether the influence of opportunities directly or indirectly on affective commitment, so the intervening variable is needed, which is job satisfaction as a mediation between independent and dependent variables. We ran PLS by introducing job satisfaction as the mediating variable, as portrayed in Figure 1 to test the hypothesis.

Direct Effect

Direct effect is direct relationship between the independent variable and the dependent variable. The objective is to know whether the opportunities could affect to affective commitment in service company and manufacture company. As shown in Table 4.4.1 the result indicates that development positively related to affective commitment in service and manufacturing company because (β=0.20; p< 0.01; R²=0.49) and (β=0.29; p< 0.05; R²=0.08). Therefore, when the employee provided development opportunities, they will commit to their organizations, so H1 is supported.

Recognition proposes to have direct relations to affective commitment. As shown Table from both side service company (Table 4.4.1) and manufacture company (Table 4.4.2), they showed the different result. The result indicates that recognition significantly related to affective commitment for service company (β=0.50; p< 0.01; R²=0.49) and recognition fails to predict affective commitment in manufacture company (β=-0.18; p=0.018; R²=0.08). Therefore, when employees are provided recognition opportunities, it will give impact to employees who work in service company that their commitment increases, H2 is not supported for the employees who work in manufacture company. Next, we also did the same procedure for H3, which the result, show that promotion negatively related to affective commitment in both side service company (see Table 4.4.1) (β=-0.14; p=0.09; R²=0.49) and manufacture company (see Table 4.4.2) (β=-0.12; p=0.35; R²=0.08). Therefore, H3 is not supported.

Indirect Effect (Mediating Effect)

Mediating effect is the way to link on variable independent and variable dependent, usually called as variable intervening. Before we measure the mediating effect, we should test the direct effect and then compare with the mediating effect as stated Sholihin and Ratmono (2013). The objective from mediating effect is to know whether the job satisfaction could affect the opportunities to affective commitment in service company and manufacture company. As shown (see Table 4.4.1) the result comes from the relationship between opportunities and organization commitment through job satisfaction.

We propose of the analyzes result for that relationship between (a) development opportunity, (b) recognition opportunity, (c) promotion opportunity on affective commitment is mediated by
job satisfaction such that employees with greater job satisfaction have higher level of organization commitment. In other words, as job satisfaction increases, the strength of relationship between opportunities and organizational commitment increases. Results of the analyses show that the product terms of Development x Job Satisfaction (β=0.47; p< 0.01; R²=0.22), Recognition x Job Satisfaction (β=0.58; p< 0.01; R²=0.49), Promotion x Job Satisfaction (β=0.46; p< 0.01; R²=0.21). The result proves opportunities predict organizational commitment, so H4(a), H4(b), H4(c) are supported in service company’s area.

Next, we also did the same process to test H4a, H4b, H4c for the manufacture company, which the result (see Table 4.4.2) on manufacture company, Development x Job Satisfaction (β=0.41; p< 0.01; R²=0.17) and Promotion x Job Satisfaction (β=0.20; p< 0.05; R²=0.08) success to predict organizational commitment, so H4a and H4c are supported. Recognition x Job Satisfaction (β=0.18; p> 0.05; R²=0.03) does not predict organizational commitment, therefore H4b is not supported. That is to say, when the employees have higher level of job satisfaction, it does not work for the employees who have been provided with recognition opportunities will commit to organization.

Table 5. PLS results (Path coefficient, and R² (Service Company))

<table>
<thead>
<tr>
<th>Variable</th>
<th>Path to JS</th>
<th>Path to AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>DO</td>
<td>0.202*</td>
<td>0.49</td>
</tr>
<tr>
<td>R²</td>
<td>0.502*</td>
<td>0.49</td>
</tr>
<tr>
<td>JS</td>
<td>0.139***</td>
<td>0.49</td>
</tr>
<tr>
<td>R²</td>
<td>0.651*</td>
<td>0.42</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variable</th>
<th>Path to AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>DO</td>
<td>0.087***</td>
</tr>
<tr>
<td>R²</td>
<td>0.39</td>
</tr>
</tbody>
</table>
Table 6. PLS results (Path coefficient, and R² (Manufacture Company))

Panel A. Direct Effect

<table>
<thead>
<tr>
<th>Variable</th>
<th>Path to</th>
<th>AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>DO</td>
<td>0.290*</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.08</td>
<td></td>
</tr>
<tr>
<td>RO</td>
<td>0.178***</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.08</td>
<td></td>
</tr>
<tr>
<td>PO</td>
<td>-0.116***</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.08</td>
<td></td>
</tr>
<tr>
<td>JS</td>
<td>0.482*</td>
<td>0.23</td>
</tr>
<tr>
<td>R²</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Panel B. Testing the mediating effect of job satisfaction

<table>
<thead>
<tr>
<th>Variable</th>
<th>Path to</th>
<th>JS</th>
<th>AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>DO</td>
<td>0.407*</td>
<td>0.146***</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.17</td>
<td>0.25</td>
<td></td>
</tr>
<tr>
<td>RO</td>
<td>0.180***</td>
<td>-0.181***</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.03</td>
<td>0.26</td>
<td></td>
</tr>
<tr>
<td>PO</td>
<td>0.287*</td>
<td>-0.076***</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.08</td>
<td>0.468</td>
<td></td>
</tr>
</tbody>
</table>

Panel C. Full Model

<table>
<thead>
<tr>
<th>Variable</th>
<th>Path to</th>
<th>JS</th>
<th>AC</th>
</tr>
</thead>
<tbody>
<tr>
<td>DO</td>
<td>0.373***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RO</td>
<td>-0.163***</td>
<td>0.162***</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td>0.12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PO</td>
<td></td>
<td>0.12</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td></td>
<td>0.12</td>
<td></td>
</tr>
</tbody>
</table>

*significant at p < 0.01
**significant at p < 0.05
***not significant p > 0.05
As the beginning part to test the mediating relationship that we proposed between Opportunities (Development, Recognition, Promotion) and affective organizational commitment through job satisfaction, we need to test the direct relationship between Opportunities (Development, Recognition, Promotion) and affective organizational commitment, and, we ran PLS by introducing job satisfaction as the mediating variable to test the hypothesis.

### Table 7. Indirect, Direct, and Total Effect

<table>
<thead>
<tr>
<th></th>
<th>Manufacture</th>
<th>Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect effect</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(DO-JS-AC)</td>
<td>0.407 X 0.482</td>
<td>0.196</td>
</tr>
<tr>
<td>Direct effect</td>
<td>0.146</td>
<td>0.302</td>
</tr>
<tr>
<td>Total effect</td>
<td>0.342</td>
<td>0.551</td>
</tr>
<tr>
<td>VAF for DO-JS-AC</td>
<td>0.196</td>
<td>0.573</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.249</td>
</tr>
<tr>
<td>Indirect effect</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(RO-JS-AC)</td>
<td>0.180 X 0.487</td>
<td>0.088</td>
</tr>
<tr>
<td>Direct effect</td>
<td>-</td>
<td>0.417</td>
</tr>
<tr>
<td>Total effect</td>
<td>0.093</td>
<td>0.653</td>
</tr>
<tr>
<td>VAF for RO-JS-AC</td>
<td>0.088</td>
<td>-0.093</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.939</td>
</tr>
<tr>
<td>Indirect effect</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(PO-JS-AC)</td>
<td>0.287 X 0.468</td>
<td>0.134</td>
</tr>
<tr>
<td>Direct effect</td>
<td>-</td>
<td>0.196</td>
</tr>
<tr>
<td>Total effect</td>
<td>0.058</td>
<td>0.285</td>
</tr>
<tr>
<td>VAF for PO-JS-AC</td>
<td>0.134</td>
<td>0.058</td>
</tr>
<tr>
<td></td>
<td></td>
<td>2.303</td>
</tr>
</tbody>
</table>

The result show the direct relationship between Opportunities (Development, Recognition, and Promotion) and affective commitment. Conducting further analysis by introducing affective organizational commitment as mediating variables, we used a VAF test (Variance Accounted For). We used this test as stated from Hair et al (2013) argue that full mediation is only exist if the VAF value is over 80 percent, but the mediation role is partial if it is between 20 percent - 80 percent. However, there is no mediating effect if the value is less than 20 percent.
The result (Table 4.4.3) demonstrates that job satisfaction as the mediating variable, whether between opportunities (“development opportunities”, “recognition opportunities”, and “promotion opportunities”) and affective commitment in manufacture company is 0.573 or 57.3 percent (DO), -0.939 or -93.9 percent (RO), and 0.230 or 23 percent (PO). Therefore our mediating test is confirming the hypotheses H4a and H4c but not confirming H4b. Then we did the same thing to service company. In service company’s part, the VAF for the relationship between opportunities to affective commitment through job satisfaction is 0.451 or 45.1 percent (DO), 0.362 or 36.2 percent (RO), and 0.313 or 31.3 percent (PO). Finally, our mediating tests confirming our hypotheses H4a, H4b and H4c. From the result above we can conclude that service company gives the most significant relationship to variables, directly or indirectly than manufacturing companies.

Discussion

The motivation of this research conducted to propose and examine the relation between development opportunity, recognition opportunity, promotion opportunity and organizational commitment. Other than that, this research also examined the mediating effect of job satisfaction in relation of opportunities and organizational commitment. Opportunities given to employees in various companies can increase employee commitment so that it affects employee performance. In many companies specialized in service and manufacturing companies, this opportunity has become the obligation of superiors to give to their employees to make the company successful. We explore how an employee's commitment increases if the opportunity is given and accompanied by a job satisfaction from the upper management. We found that opportunities (i.e. development, recognition, promotion) have different relationship to job satisfaction and also toward affective organizational commitment in service and manufacture company.

Based on the result, when it has direct or indirect relation in both service and manufacturing company, it shows that development opportunity positively influence to organizational commitment. Positive relationship of development opportunity towards job satisfaction indicates that when employees are given development opportunities to improve their quality, their sense of satisfaction increases. Likewise, positive relationship to affective commitment have a sign that the desire of employees to remain committed to the organization will increase with these opportunities. This is in line with the finding from Ling et al (2014) training opportunity positively influence to organizational commitment. While training is one of the way to develop the employee skill and performance. In research on the number of British employees, Gazioglu and Tansel (2006) found that employee training success predict the job satisfaction. Leppel et al (2012) found that respondents whose organizations did not provide training opportunities such as improving the quality of their employees proved their job satisfaction was lower than the respondents who had the opportunity to train. This finding is consistent with the research from Choo and Christine (2015) which in his research proves that employee satisfaction can increase because of the influence of the availability of training.

When it comes to recognition opportunity, the result shows that recognition opportunity has positive relation on organizational commitment and also mediating on job satisfaction in service company. Rewards and benefits can increase employee motivation and welfare so as to increase overall employee satisfaction and performance. Therefore, with the opportunity for recognition, it can improve the quality of services. This result agreed with the findings from Nazir et al (2018) that the research conducted from public and private-sector employees working in China.
which intrinsic rewards have significant relation on commitment. Another research that supports hypothesis h4b comes from Chew and Chan (2007) which stated that recognition has significant relationship on organization commitment. According to the findings of previous research in Mexico, Castro et al. (2016) the result shows that the greater the reward, the higher the commitment given. Another research that support the result Gu and Siu (2008) stated that benefits are significant with job satisfaction. But that does not apply to manufacture company. In manufacture company, the results provide different answers. Recognition opportunity fails to have direct effect on affective commitment also mediating on job satisfaction. This was in line with the findings of Taba (2018) that Intrinsic and extrinsic reward systems do not have an influence on job satisfaction because many employees consider that the reward is indeed an obligation of their company for their hard work. At the same time, it could be associated with research by Brief and Weiss (2002) which stated that the biggest influence of job satisfaction is not from extrinsic reward. Currivan (2000) took the sample in US found that extrinsic motivations such as money could not affect job satisfaction also organizational commitment. When the upper management provide the monetary reward to the employee, there is no effect on their job satisfaction and their commitment.

Finally we go to the final result which is promotion opportunity that has the same answer for service and manufacture company. As Table shown that when promotion opportunity has indirect relation on organizational commitment, it has positive relation on job satisfaction and also on organizational commitment. It can be concluded that the better or the right implementation of employee promotion, the higher the job satisfaction of employees. Thus, the research is consistent with the finding from Malik et al (2012) which stated that promotion has positive relation on job satisfaction. Also this can be explained by the longer a person is working in an organization, the more it gives the opportunity to accept more challenging tasks, greater autonomy, flexibility to work, greater levels of extrinsic rewards and opportunities for higher promotion. Thus, this finding is support the research from Corbett (2015) which found in two banks of case study about promotion opportunities as one of work experience has a positive relationship to affective commitment. The sample of nurses at a private hospital Rubel and Kee (2015) show that perceptions of opportunities for promotion and development can increase the sense of belongings to the organization and prefer to stay by reducing their intention to leave.

When promotion opportunity has direct relation on organizational commitment, it has negative effect on organizational commitment. Employee commitment cannot be determined by promotional opportunities. Since the employee gets a promotion opportunity easier, but gets bad treatment, it does not guarantee the employee still commit to the company. The result support the finding from Stringer et al (2011) they found that promotion is one extrinsic motivation that has negative effect on job satisfaction. This evidence also provides support for the argument in the research Hassard et al (2012) that other factors besides promotion opportunities to increase the organizational commitment are employees which may use other opportunities such as development and recognition.

5. CONCLUSIONS AND RECOMMENDATION

This study has proven that opportunities, job satisfaction, and affective organizational commitment are the most important elements in any kinds of company. Especially the employee opportunities really give impact to their satisfaction and commitment. The results of this study demonstrate mostly agree if opportunities and job satisfaction are increase, their commitment
also will be increasing. Thus opportunities have an important role in employee’s intention to do the job in his/her best performance through values, attitudes, and commitment that comes from their job satisfaction. It is important to the organizations to give opportunities that specifically breakdown into three kinds. All the result give positive relation between job satisfaction and affective organizational commitment in each kinds of opportunities. Therefore, since the company already been provided the opportunities to the employee, it is important for service and manufacture company enhance the employee satisfaction in order to be able to further enhance their commitment. As explained previously, development opportunities with job satisfaction more likely to strengthen the relationship to affective organizational commitment than recognition and promotion opportunities.

There are limitations in this study should be acknowledged; this study used affective commitment as the organizational commitment, as we know that (Allen and Meyer, 1990) have been explained about two other commitment which normative commitment (feeling of responsibility to stay), and continuance commitment (stay because there are benefits factors). Thus, future study could use other dimension for organizational commitment in relationship between the opportunities and organizational commitment, in order to be able to explore different results. Second, the cultural factors in each country are different, since this study conducted in single country (Indonesia), this might give too specific results for the employee who work in service and manufacture company. Hence, the future research should test the hypothesis in other country, and this also applies to every sectors that the results may be implemented in only a few companies. Therefore further research, can be re-tested in order to obtain general results.

REFERENCES


Analysis of the Effect of CEO Age, Gender and Work Experience on Family Business Sustainability

Helen Alexandra
President University, Indonesia

Andrianantenaina Hajanirina
President University, Indonesia

Abstract

This research is aiming to analyze the importance of the manager or owner characteristic towards the family business sustainability. The manager or owner is crucial for running the business as he or she is both the one who runs the business and manage all the activities. To deal with the family business sustainability, this study collects primary data from questionnaire survey. The results show that work experience has positive relationship towards the business sustainability. However, age and gender have insignificant relationship. It is so, because the majority of the respondents are still very young and there are second party helping them for the managing of the business like parents or other employees. This research helps to consider the experience of manager to prime over other manager’s characteristics in order to keep the business to have a long life.

Keywords: family business, work experience, age, gender, sustainability

1. INTRODUCTION

Most of the businesses in Indonesia are run by family. Family business contributes remarkably to the Indonesian economy. The businesses are managed by the owner and the family member including the CEO. CEO is one of the important positions in a company, especially the topic that is talked here related to family business. It is essential to consider who is going to be the next CEO in one’s company. Choosing a CEO can be from inside or outside the company and it is related to the development of the company in the future. According to a 2016 U.S. Trust Insights on Wealth and Worth Survey, four in ten entrepreneurs have family members involved in their business, and most see the involvement of family as a competitive advantage. So, when it
comes to succession planning, deciding whether to keep the business within the family or pursue an alternative route can be both an emotional and strategic process (Sharkey, 2017).

Every firm will eventually reach the point when it has to professionalize the way it operates, by instituting more rigorous processes, establishing clear governance, and recruiting skills from outside, and family firms are no different. A CEO, which stands for Chief Executive Officer, is the highest-position person in an enterprise or organization. The CEO is responsible for the overall success of a business entity or other organization and for making top-level managerial decisions. They may ask for suggestion on making decisions but they are the ultimate authority in making final decisions. There are other calling for CEOs, such as president, chief executive, and managing director. The Chief Executive Officer reports directly to, and is responsible to, the board of directors for the performance of a company. The board of directors (BoD) is a group of people who are chosen to represent the shareholders of the company. The CEO often sits on the board and, in some cases, she or he is the chairperson of the company.

Duties also vary depending on the size of the organization and the number of employees and among other factors. CEOs lead a range of organizations, including public and private corporations, non-profit organizations and even some government organizations. In the non-profit and government sector, CEOs typically aim at achieving outcomes related to the organization's mission, such as reducing poverty, increasing literacy, etc.

In smaller companies or organizations, the CEO takes on a more engage in making lower-level business decisions (e.g., hiring of staff). In larger companies, she or he usually only deals with high-level corporate strategy and major company decisions. Other tasks are delegated to other managers or departments. In addition to the overall success of an organization or company, the CEO is responsible for leading the development and execution of long-term strategies, with the goal of increasing shareholder value. Additionally, the CEO must ensure that the organization's leaders experience the consequences of their actions whether through reward and recognition or performance coaching and disciplinary actions. Without responsibility and accountability that is actively expected and reinforced, the CEO will fail to attain desired success and profitability (CFI, 2018).

A good book on CEO succession is The CEO Within by my Harvard Business School colleague Joe Bower. Bower studied how companies perform after hiring a new CEO, noting whether the successor had been recruited from inside or outside the company. Bower makes a strong case for making “Insider Outsiders” your next CEO. These internal candidates with some outsider views have a more objective and independent view about how your company needs to change and adapt. Executives with the right mix of Insider and Outsider attributes, Bower claims, are likely to do a better job and create more economic value as CEO. I agree but CEO selection is more complex for family companies.

One of the most important institutions determining the success or failure in organizations is the board of directors. The board of directors sets the strategic direction of the firm and is responsible for maintaining its long-term performance (Judge & Talaulicar, 2017).

If adequately structured, the board of directors can mitigate family-family and family-nonfamily conflicts of interests that typically constrain family business performance (Samara & Berbegal-Mirabent, 2018; Villalonga & Amit 2006).

In this regard, the relationship between the presence of women on the board of directors and family business performance has attracted increased attention in the last decade, partly because women are expected to gradually become more involved in leadership positions in the near future. Yet, the relationship between the presence of women directors and family businesses’
economic performance remains inconclusive with empirical results reporting both negative and positive effects. The lack of consensus from empirical studies challenges the legitimacy of appointing women to family business boards, as it is not yet clear how gender diversity can add value in the boardroom (Fitzsimmons, 2012; Singh, Point, Moulin, & Davila, 2015).

Gender equality gets a lot of attention these days, and for good reason: it is not only an issue of fairness but also, for companies, a matter of attracting the best workers, at least half of whom are women. There is also considerable economic value at stake for companies and nations. Regarding to these days issue, the purpose of this research is to know how CEO gender can also effect the company.

This research will use three variables including, CEO’s age, CEO’s gender, and CEO’s experience. Some company consider to become a CEO needs at least people in their 50s and people say the more someone aged, the more he has many experience in working in a business. According to the statement that is stated above, then this paper needs to be continued as the title “ANALYSIS THE EFFECT OF CEO AGE, GENDER AND EXPERIENCE ON THE FAMILY BUSINESS’ SUSTAINABILITY”

**Research Question:**
- How significant does the CEO age effect family business sustainability?
- How significant does the CEO gender effect family business sustainability?
- How significant does the CEO work experience effect family business sustainability?

**Research Objective**
- To find out the effect of CEO age on family business sustainability.
- To find out the effect of CEO gender on family business sustainability.
- To find out the effect of CEO work experience on family business sustainability.

**Advantage Of This Research**
- Future Research
  - To give insights to the family business sustainability management
  - To add knowledge for student regarding family business sustainability subject

**Reader**
- To increase appropriate facility for conducting a research
- To increase information regarding family business sustainability subject
- To give contribution to society who have family business about the new research
- To help decision making for choosing CEO in family business
- To contribute a good research for the government
- To contribute new idea of leaders in government

**2. THEORETICAL REVIEW AND HYPOTHESES**

*Types of family businesses*

Family firms enjoy many advantages and, especially in Asia, serve as important drivers of economic growth. Yet because of their structure, over time they also run into a maze of complexities which bring with them potential risk.
For example, some businesses grow rapidly without managerial talent available inside the family, meaning the business misses valuable opportunities. In other cases, the number of family members outgrows the ability of the business to accommodate their diverse interests and they descend into conflict.

a. Simple business, simple family

Founded in 718, Japan’s Hoshi Ryokan hotel in central Japan, is one of the oldest family firms in the world. Run by the same family for 46 generations, it has remained fairly simple by focusing on a single hotel, and by-passing leadership and ownership to the eldest son. In this model the successor’s role is clear and unchallenged, siblings do not get involved, and the family’s commitment and heritage contribute to the firm’s success.

This model has worked well, keeping the business in the family for 1,300 years, but it is vulnerable as it places all bets on one candidate. Businesses like this are fairly focused, with a concentrated family structure. With only a few family members involved, they do not need complex governance systems for either the business or the family. The business is not very diversified or complex and could benefit from centralized management and flexibility.

b. Simple business, complex family

Family-run Singapore property group Hiap Hoe is an example of how things can become overly messy without proper rules. The firm’s patriarch, Teo Guan Seng, kept three families at the same time and tried to achieve cohesion by letting everyone share in his business wealth. However, family squabbles, a divorce, and feuding children forced him to resign and dismantle the publicly listed holding company.

Businesses of this type are relatively simple, but many family members are involved in management or ownership, or both. Some family members may feel entitled to benefits without contributing proportionately.

A family constitution that clearly sets out the values and expectations for how the family owns, manages, and relates to the business, will be helpful for these firms, along with a family board.

c. Complex business, simple family

Many firms from China, where the owners typically have small families and big markets to play in, fall into this category. For example, the Wahaha Group, which started in 1987 as a beverage company, has diversified into a successful multinational and now operates in packaged foods, health supplements, and children’s clothing. Its 73-year-old Chairman, Zong Qinghou, has appointed his only daughter, Kelly Zong as the group’s chief executive. Going forward, her attention will be focused on instilling proper controls in the business, and attracting outstanding non-family talent.

In cases like Wahaha, whilst the family is relatively simple, the business has already matured and requires sophisticated managerial talent to run it. With few family members involved, it is important to professionalize the business to limit its dependence on scarce family talent.
Merit-based leadership and mature corporate governance systems are a minimum requirement.

4. Complex business, complex family
South Korea’s Hyundai Group is a good example of a sprawling business group and a multifaceted family. Founded as a construction business in 1947 by Juyoung Jeong, the group informally split up among his sons and brothers after his sudden demise in 2001. However, the Hyundai firms were interconnected in a convoluted cross-shareholding pattern.
With three generations in the family business, including some deceased descendants replaced by their widows, the family found little common ground and resorted to court cases.
Managing firms where both the business and family are complex requires a significant investment in governance systems. A continuous focus on involving new generations of the family, grooming entrepreneurship and managerial talent, as well as family bonding is required.
The business will also need mature governance systems that set clear expectations for the business leadership, and development programs to stimulate leadership talent.

*Family relation and CEO-selecting decision*

In family-owned businesses, the inherited control power of the company has been emphasized more for decades. The transition of control power from a family member to a non-family-member professional executive is a challenging decision for family-business founders. The misalignment of the founding family members’ interests and professional talents may result in conflicts of interest. Barnes and Hershon (1994) stated that family members may be more concerned about financial and “political” benefits in family businesses. CEOs from family-owned business attempt to maximize profit for the business and maintain the family’s interests and control power. To maintain the family’s control power and interest, CEOs are more likely to select intra-firm members. We thus hypothesize the following.

3. RESEARCH METHOD

*Data Collection*
Our data sample is collected from a secondary data.

*Measures*

*Dependant variable*
Family business’ sustainability is related to CEO’s age, gender and experience.

<table>
<thead>
<tr>
<th>CEO Age</th>
<th>H1</th>
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<tbody>
<tr>
<td>CEO Gender</td>
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<tr>
<td>CEO Experience</td>
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<table>
<thead>
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<td>H2</td>
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<tr>
<td>H3</td>
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**Indepedant variables**

CEO Age is operationally defined as the age of CEO that work in the company. CEO gender indicates either the CEO is a man or woman. CEO Experience indicates the experience that the CEO have gone through in his working career.

**Analysis**

Based on the statement that has been written above, we can analyze a few things. The hypotheses relate to the influence of the CEO age, gender and experience to family business sustainability.

We estimated the age of CEO is important for the company. Some family business or other company has different rules and regulations. A young person in his or her 20s can possibly become CEO. Especially if he or her is part of the family business, it is easier for that person to join the business. Some family business chooses to point the person to sit in the CEO position from their own family. Family business sometimes choose to point out person to be CEO from outside of the family. Family business choose to do that because of a few things. People from outside of the family could be more capable and could see things about how to develop the company from the other side. The possibility or chance for outsider to become CEO is existing. Old person could also become a CEO. And could also from outside and inside the family business.

And, we estimated that the gender of the CEO is also important. In this days, it is not a weird thing to have a female workers in a company. A company with female workers would be better that a company without female workers. From employees until the top-level management, female can be positioned everywhere because female also have the capability as the man does.

The experience also obtains an essential role for the CEO position. As a CEO, you mush have a good education history. It also good if someone has a high degree. But, more important is CEO must have a work experience and good career before becoming an CEO. As a young person it is also possible to be a CEO, but one’s have to be so brilliant and as previously mention, it is easier if someone is the part or the fixed successor.

To develop a sustainable family business, a company must consider these three aspect for choosing a CEO.

4. **LITERATURE REVIEW**

*Definition Of The Variables*

Family Business Sustainability:

Family business has been existed a long time ago. It is one type of business that contributes and has run the world’s economy.

Like an aging relative who com- s of innumerable ills but es on and on, family business, characterized as small, inbred, backward, and riddled with nepotism, perseveres and prospers.
Family businesses may be large (Gallo, Mars), growing (Flowers Industries), or small (McIlhenny & Sons of Tabasco sauce fame); they may be national or international in scope, or the local firm we think of most often.

CEO Age:

Age is a number that shows how old a person is. It is essential to know how old a person is since it will show the standard capability and physical activity that someone can bear. It also show how much someone are able to work in the field

CEO Gender:

Gender in career world is popular starting in 20th century. Physical shape of human gone through evolution and so does the mind or way of people think undergo an evolution. From the beginning, man is always the leaders as it is the natural thing that man has. And women is not a leader from nature. But that stigma changes from time to time. More and more women go to school and try to make a breakthrough. Women started to work in man majority workers and do not stay at home to do the house course. In business, women also able to be workers in company nowadays and women also able to be CEO. Regarding to his chance that women have right now, this research is conducted to see if women or men CEO have a significant impact on family business sustainability

CEO Work Experience:

In company, work experience is essential for every workers including the CEO him/herself. Work experience can do effect the work quality that workers have. Skills and creativity is needed when working. It is come from work experience. To conduct decision making, someone has to have good emotion, good way of thinking and alternatives for the problem. It will professionalize after a long period of working. It can make a good CEO from good working experience.

EXPECTATIONS:
This research is conducted to test the correlation of the variables. In general, age is related to the work experience that someone has. I will testify that age, work experience and gender will have a significant relation with family business sustainability.

HYPOTHESIS:

- Hypotheses 1. CEO Age is positively related to the family business’ sustainability.
- Hypotheses 2. CEO Gender is positively related to the family business’ sustainability.
- Hypotheses 3. CEO Experience is positively related to the family business’ sustainability.

<table>
<thead>
<tr>
<th>Title</th>
<th>Author</th>
<th>Finding</th>
<th>Variable</th>
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<tr>
<td>CEO age and CEO gender: Are female CEOs older than their male counterparts?</td>
<td>Pradit Withisupharon, Pornsit Jiraporn</td>
<td>Women who are able to make it to the top must possess extraordinary skills, which allow them to reach CEO position younger.</td>
<td>Age, gender</td>
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<td>The impact of the family and the business on family business sustainability</td>
<td>Patricia D. Olson, et al.</td>
<td>Strategies for families to utilize to increase the success of both their business and their family based on analysis of data in the 1997 National Family Business Survey (1997 NFBS).</td>
<td>Family business sustainability</td>
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<td>The acquisitiveness of youth: CEO age and acquisition behavior</td>
<td>Soojin Yim</td>
<td>The relevance of CEO personal characteristics and CEO-level variation in agency problems for corporate decisions.</td>
<td>age</td>
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<tr>
<td>How CEO experience, personality, and network affect firms’ dynamic capabilities</td>
<td>Till von den Driesch, et al.</td>
<td>The impact of CEO experience, personality, and network on dynamic capabilities.</td>
<td>experience</td>
</tr>
<tr>
<td>Gender issues related to choosing the successor in the family business</td>
<td>Idoia Idigoras, et al.</td>
<td>Family women are very much appreciated as family businesses’ managers</td>
<td>Gender, family business</td>
</tr>
</tbody>
</table>

**Descriptive Statistics**

The data that I took is quantitative data. The statistical method for the demographic profile is using parametric method.

**DEMOGRAPHIC RESPONDENT**
Jenis Kelamin
70 tanggapan

Usia
70 tanggapan

Pendidikan Terakhir
70 tanggapan
**Demographic Interpretation**

There is total 70 respondents who make contribution for answering the questionnaire. From the first pie chart giving the data about respondent’s gender. There are 64.3% women (45 people) and 35.7% men (25 people) who participated.

The second pie chart is displaying about respondent’s age. There are 87.1% respondent (61 people) who is 15 – 20 years old, 11.4% respondent (8 people) who are 21-30 years old, and the rest is only 1 respondent who is 31-40 years old.

The third pie chart is displaying about respondent’s last education. There are 1 person who have junior high school as their last or pervious education, 78.6% respondent (55 people) who have senior high school as their last education, 12 people who have undergraduate degree as their last education and 2 people who have graduate degree as their last education.

The forth pie chart is displaying about respondent’s division in the family business. 18 respondents is the CEO of family business and the rest is in other division, not taking part, the children, as helper or assistant in the family business. The people who response to this only 63 people.
The last demographic pie chart is displaying respondent’s family business age. There are 30 respondents with business less than 5 years old, 13 respondents with business around 5 – 10 years old, 12 respondents that have around 11 – 20 years old business, 3 respondents with 21 – 30 years old business, 3 respondents with 31 – 40 years old business and the other 9 respondents do not know exactly how long their business run.

**Statistics Models (Equations)**

The data that is used is cross section data.

- dependent variable: family business sustainability
- independent variables: CEO age, gender and experience

\[
FBS_i = \alpha_i + \beta_i AG_i + \beta_i GE_i + \beta_i WE_i + \epsilon_i
\]

5. RESEARCH METHOD

The population are my family, senior high school friends and President University students. The sample is the people that have family business. Simple Random Sampling is used as the method of sampling and I choose to use simple random sampling because I only want to know from the people who own family business. The method is questionnaire using Google form and spread the Google form link to the population. The time period to fill the questionnaire is 4 days. The statistical tools used is cross section because no time included. The testing method using classical assumption and using SPSS for the statistical tools because I use primary data.

- **Dependent Variable:** Family business sustainability
  There are 4 question and should be filled using 5 level of answer.

<table>
<thead>
<tr>
<th>Agreement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sangat tidak setuju (strongly disagree)</td>
<td>1</td>
</tr>
<tr>
<td>Tidak setuju (disagree)</td>
<td>2</td>
</tr>
<tr>
<td>Netral</td>
<td>3</td>
</tr>
<tr>
<td>Setuju (Agree)</td>
<td>4</td>
</tr>
<tr>
<td>Sangat setuju (strongly agree)</td>
<td>5</td>
</tr>
</tbody>
</table>

- **Independent variable 1:** CEO Age
  CEO age is categorized into several intervals of age.

<table>
<thead>
<tr>
<th>CEO age (years old)</th>
<th>code</th>
</tr>
</thead>
<tbody>
<tr>
<td>21 – 30</td>
<td>1</td>
</tr>
<tr>
<td>31 – 40</td>
<td>2</td>
</tr>
<tr>
<td>41 – 50</td>
<td>3</td>
</tr>
<tr>
<td>51 – 60</td>
<td>4</td>
</tr>
<tr>
<td>&gt;60</td>
<td>5</td>
</tr>
</tbody>
</table>

- **Independent variable 2:** CEO Gender
Collecting the data if the family business CEO is female or male. The code or value for female is 1 and male is 2.

- Independent variable 3: CEO work experience
  There are 4 question and should be filled using 5 level of answer.

<table>
<thead>
<tr>
<th>Agreement</th>
<th>Code</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sangat tidak setuju (strongly disagree)</td>
<td>1</td>
</tr>
<tr>
<td>Tidak setuju (disagree)</td>
<td>2</td>
</tr>
<tr>
<td>Netral</td>
<td>3</td>
</tr>
<tr>
<td>Setuju (Agree)</td>
<td>4</td>
</tr>
<tr>
<td>Sangat setuju (strongly agree)</td>
<td>5</td>
</tr>
</tbody>
</table>

6. RESULT ANALYSIS

Regression

<table>
<thead>
<tr>
<th>Coefficientsa</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>1</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: FBS

After processing the data in SPSS, the first is checking the regression. If the value is <0.05 means that the independent variable is significant to the dependent variable. The coefficients table above show significant level of IV CEO age is 0.944; significant level of IV CEO gender is 0.522; and significant level of CEO work experience is 0. The result is IV CEO age and gender is not significant to the DV family business sustainability. On the other hand, IV CEO work experience is significant to the DV family business sustainability.

Normality Assumption

One-Sample Kolmogorov-Smirnov Test

<table>
<thead>
<tr>
<th></th>
<th>Unstandardized Residual</th>
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<tbody>
<tr>
<td>N</td>
<td>70</td>
</tr>
<tr>
<td>Normal Parametersa,b</td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation</td>
</tr>
<tr>
<td>Most Extreme Differences</td>
<td>Absolute</td>
</tr>
<tr>
<td></td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Negative</td>
</tr>
<tr>
<td>Test Statistic</td>
<td></td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td></td>
</tr>
</tbody>
</table>

a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.

The next is checking the normality assumption. It is to test if the residual is distributed normally. The criteria is if the sig. 2 tail>0.05 means the residual is distributes normally. From the One-sample Kolmogrov-Smirnov Test below, it is shown that the level of sig. 2 tail is 0.2; so it means that the residual is distributed normally.

**Multicollinearity (Multiple Regression)**

<table>
<thead>
<tr>
<th>Correlations</th>
<th>FBS</th>
<th>AG</th>
<th>GE</th>
<th>WE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FBS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>.056</td>
<td>.041</td>
<td>.548</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.644</td>
<td>.738</td>
<td>.000</td>
</tr>
<tr>
<td>N</td>
<td>70</td>
<td>70</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td><strong>AG</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.056</td>
<td>1</td>
<td>.047</td>
<td>.093</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.644</td>
<td>.700</td>
<td>.444</td>
</tr>
<tr>
<td>N</td>
<td>70</td>
<td>70</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td><strong>GE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.041</td>
<td>.047</td>
<td>1</td>
<td>.192</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.738</td>
<td>.700</td>
<td>.111</td>
</tr>
<tr>
<td>N</td>
<td>70</td>
<td>70</td>
<td>70</td>
<td>70</td>
</tr>
<tr>
<td><strong>WE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>.548</td>
<td>.093</td>
<td>.192</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td></td>
<td>.000</td>
<td>.444</td>
<td>.111</td>
</tr>
<tr>
<td>N</td>
<td>70</td>
<td>70</td>
<td>70</td>
<td>70</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).**

The Correlations table above shown that the Pearson Correlation is all below 0.07. The criteria are if the Pearson correlation <0.07 that means there is no multicorrelation. So, it means that the data above means there is no multicorrelation between DV CEO age, gender and work experience. In this research, the independent variables do not intercorrelate one another.

**Heteroscedasticity (Cross Section)**

<table>
<thead>
<tr>
<th>Coefficients*</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>.393</td>
<td>.141</td>
<td>2.779</td>
</tr>
<tr>
<td>AG</td>
<td>.030</td>
<td>.024</td>
<td>.144</td>
<td>1.210</td>
</tr>
<tr>
<td>GE</td>
<td>.011</td>
<td>.044</td>
<td>.030</td>
<td>.250</td>
</tr>
<tr>
<td>WE</td>
<td>-.101</td>
<td>.049</td>
<td>-.250</td>
<td>-2.063</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Abs_res

The next is checking the heteroscedasticity. It is to test if the variances of observations are constant (same or homoscedasticity). It is shown from the table above that significant level of IV CEO age is 0.230; significant level of IV CEO gender is 0.803; significant level of IV CEO work experience is 0.043. The criteria is if the significant>0.05 means there is no heteroscedasticity. So, IV CEO age and gender are constant or homoscedasticity and IV CEO work experience is heteroscedasticity.
7. CONCLUSION

The aim for this research is to find out the significant effect of CEO age, gender and work experience on family business sustainability. The data result of CEO age and gender is not significant effect towards family business sustainability, while the work experience is shown to have a significant effect towards family business sustainability. From One-sample Kolmogrov-Smirnov Test, it shown that test is distributed normally. From multicollinearity test, it is shown that independent variables do not intercorrelate one another. From heteroscedasticity test, it is shown IV CEO age and gender are homoscedasticity and IV CEO work experience is heteroscedasticity.

The practical impact that this study might have is it can give new idea and information about the CEO age, gender and work experience in family business sustainability. And it might contribute in decision making of choosing CEO in family business and for the better family business sustainability subject.

The weakness in this research is cannot prove that IV CEO age and gender have a significant effect to the family business sustainability. The reason may be because some irrelevant questionnaire. Second weakness is the respondents have not reach 150 people, it is only 70 respondents that I can collect. This might be due to a lot of people do not own family business in the population and I cannot collect a better sample of family people who own family business.

I am suggesting that other people can be inspired from this research and find the significant effect of CEO age and gender to the family business sustainability. Future research can also have more suitable respondents for a better and accountable result.

REFERENCES

CFI. 2018. What is CEO (Chief Executive Officer)?, (Online), (https://corporatefinanceinstitute.com/resources/careers/jobs/what-is-a-ceo-chief-executive-officer/), accessed on November 2, 2018

Sharkey, Karen Reynolds. 2017. The Dynamics CEOs Should Consider when Passing Down the Family Business, (Online), (https://chiefexecutive.net/dynamics-ceos-consider-passing-family-business/), accessed on November 2, 2018

Dieleman, Marlene. 2018. 4 Types Of Family Businesses You'll See In Asia And How To Govern Each Effectively, (Online), (https://www.forbes.com/sites/nusbusinnessschool/2018/05/25/4-types-of-family-businesses-youll-see-in-asia-and-how-to-govern-each-effectively/#51ea2ee6659f), accessed on November 3, 2018


### APPENDIX

#### Regression Notes

<table>
<thead>
<tr>
<th>Output Created</th>
<th>21-DEC-2018 06:23:56</th>
</tr>
</thead>
</table>

**Input**
- **Active Dataset**: DataSet2
- **Filter**: <none>
- **Weight**: <none>
- **Split File**: <none>
- **N of Rows in Working Data File**: 70

**Missing Value Handling**
- **Definition of Missing**: User-defined missing values are treated as missing
- **Cases Used**: Statistics are based on cases with no missing values for any variable used.

**Syntax**

```
REGRESSION
/MISSING LISTWISE
/STATISTICS COEFF OUTS R ANOVA
/CRITERIA=PIN(.05) POUT(.10)
/NOORIGIN
/DEPENDENT FBS
/METHOD=ENTER AG @GE WE
/SAVE RESID.
```

**Resources**
- **Processor Time**: 00:00:00.05
- **Elapsed Time**: 00:00:00.20
- **Memory Required**: 3472 bytes
- **Additional Memory Required for Residual Plots**: 0 bytes

**Variables Created or Modified**
- **RES_1**: Unstandardized Residual

#### Variables Entered/Removed

<table>
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<th>Model</th>
<th>Variables Entered</th>
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<th>Method</th>
</tr>
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<tbody>
<tr>
<td>1</td>
<td>WE, AG, GE</td>
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<td>Enter</td>
</tr>
</tbody>
</table>

a. Dependent Variable: FBS  

b. All requested variables entered.

#### Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.552*</td>
<td>.304</td>
<td>.273</td>
<td>173622290354</td>
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</tbody>
</table>

a. Predictors: (Constant), WE, AG, GE
b. Dependent Variable: FBS

### ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>.870</td>
<td>3</td>
<td>.290</td>
<td>9.625</td>
<td>.000*</td>
</tr>
<tr>
<td>Residual</td>
<td>1.990</td>
<td>66</td>
<td>.030</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>2.860</td>
<td>69</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

a. Dependent Variable: FBS
b. Predictors: (Constant), WE, AG, GE

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>1.728</td>
<td>.219</td>
<td>7.901</td>
</tr>
<tr>
<td></td>
<td>AG</td>
<td>.003</td>
<td>.038</td>
<td>.007</td>
</tr>
<tr>
<td></td>
<td>GE</td>
<td>-.044</td>
<td>.068</td>
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<tr>
<td></td>
<td>WE</td>
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</tbody>
</table>

### Residuals Statistics

<table>
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<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Predicted Value</td>
<td>2.37784028053</td>
<td>3.03158617019</td>
<td>2.89449944820</td>
<td>.112316540274</td>
<td>668</td>
</tr>
<tr>
<td>Residual</td>
<td>-.732481002807</td>
<td>3.41572046279</td>
<td>.000000000000</td>
<td>.169805949808</td>
<td>70</td>
</tr>
<tr>
<td>Std. Predicted Value</td>
<td>-4.600</td>
<td>1.221</td>
<td>.000</td>
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<td>70</td>
</tr>
<tr>
<td>Std. Residual</td>
<td>-4.219</td>
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<td>.000</td>
<td>.978</td>
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</tr>
</tbody>
</table>

### NPar Tests

#### Notes

- **Output Created**: 21-DEC-2018 06:26:59
- **Comments**
  - **Input**
    - Active Dataset: DataSet2
    - Filter: <none>
    - Weight: <none>
    - Split File: <none>
    - N of Rows in Working Data File: 70
  - **Missing Value Handling**
    - Definition of Missing: User-defined missing values are treated as missing.
    - Cases Used: Statistics for each test are based on all cases with valid data for the variable(s) used in that test.
  - **Syntax**
    - NPAR TESTS /K-S(NORMAL)=RES_1 /MISSING ANALYSIS.
  - **Resources**
    - Processor Time: 00:00:00.02
    - Elapsed Time: 00:00:00.03
    - Number of Cases Allowed: 786432

a. Based on availability of workspace memory.
One-Sample Kolmogorov-Smirnov Test

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<tr>
<th>N</th>
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</thead>
<tbody>
<tr>
<td>N</td>
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</tr>
<tr>
<td>Normal Parameters</td>
<td>Mean</td>
</tr>
<tr>
<td></td>
<td>Std. Deviation</td>
</tr>
<tr>
<td>Most Extreme Differences</td>
<td>Absolute</td>
</tr>
<tr>
<td></td>
<td>Positive</td>
</tr>
<tr>
<td></td>
<td>Negative</td>
</tr>
<tr>
<td>Test Statistic</td>
<td>.081</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td><strong>.200</strong></td>
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a. Test distribution is Normal.
b. Calculated from data.
c. Lilliefors Significance Correction.
d. This is a lower bound of the true significance.

Regression Notes

Output Created | 21-DEC-2018 06:38:43
Comments
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- Active Dataset: DataSet2
- Filter: <none>
- Weight: <none>
- Split File: <none>
- N of Rows in Working Data File: 70

Missing Value Handling
- Definition of Missing: User-defined missing values are treated as missing.
- Cases Used: Statistics are based on cases with no missing values for any variable used.

Syntax
- REGRESSION
  - /MISSING LISTWISE
  - /STATISTICS COEFF OUTS R ANOVA
  - /CRITERIA=PIN(.05) POUT(.10)
  - /NOORIGIN
  - /DEPENDENT Abs_res
  - /METHOD=ENTER AG @GE WE
  - /SAVE RESID.

Resources
- Processor Time: 00:00:00.05
- Elapsed Time: 00:00:00.05
- Memory Required: 3552 bytes
- Additional Memory Required for Residual Plots: 0 bytes

Variables Created or Modified
- RES_2: Unstandardized Residual

Variables Entered/Removed

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<tr>
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</table>
1. WE, AG, GE

a. Dependent Variable: Abs_res
b. All requested variables entered.

Model Summary

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<thead>
<tr>
<th>Model</th>
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<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
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<tr>
<td>1</td>
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a. Predictors: (Constant), WE, AG, GE
b. Dependent Variable: Abs_res

ANOVA

<table>
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</tr>
</thead>
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<td>.022</td>
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</tr>
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a. Dependent Variable: Abs_res
b. Predictors: (Constant), WE, AG, GE

Coefficients

<table>
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<tr>
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<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td>Std. Error</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Std. Error Beta</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>.393</td>
<td>.141</td>
<td>2.779</td>
</tr>
<tr>
<td></td>
<td>AG</td>
<td>.030</td>
<td>.024</td>
<td>1.210</td>
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<td></td>
<td>GE</td>
<td>.011</td>
<td>.044</td>
<td>.144</td>
</tr>
<tr>
<td></td>
<td>WE</td>
<td>-.101</td>
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</table>

a. Dependent Variable: Abs_res

Residuals Statistics

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<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
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<td>.978</td>
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a. Dependent Variable: Abs_res

Correlations

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**Definition of Missing**

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**Cases Used**

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</table>

**. Correlation is significant at the 0.01 level (2-tailed).**
The Analysis of Value of Risk (VaR): Companies Listed on LQ45

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Abstract

In facing of the market movement we need to deal with market risk which is under uncertainty condition. In order to measure uncertainty market risk we need certain tools to give us single number that describe the possible market risk or financial risk in the future. Value at Risk or VaR is a tool to measure the market risk and has become the standard measure that financial analysts use to identify market risk (Manganelli & Engle, 2001). VaR is the estimates number for measuring and predict the market risk. On this paper, we are focusing on calculating the VaR of 45 companies listed on LQ45 period January 2011 to December 2016 (monthly), using two methods, these are, historical method and variance and covariance method. The result of this research show us the comparison between two methods in terms of finding VaR of the given data.

Keywords: VaR, Historical Method, Variance and Standard Deviation Method, Market Risk, Return of Stock

1. INTRODUCTION

Risk and return are two important things that investor need to sure before deal with any investment. Return is the money earn by the investment. Losses gives negative return and profit gives positive return. Risk is the probability of the investor to loss their money on the particular investment. Risk comes from uncertainty and has neither advantages nor disadvantages (Peng). Due to risk is under uncertainty condition then the risk itself is randomness.

There is a trade-off between risk and expected return when the investor invest their money, that is the greater the risks taken, the higher the return can be realized (Hull, 2009). Expected return is different with real return. Expected return is the highly likely return to occur. The expected value for any random variable is calculated using statistics involving probability and it’s a mean of probability distribution. Therefore, expected return is a weighted mean of the possible return which is equal to the probability of the return to occur (Hull, 2009). The common
way to estimate the expected return and its probabilities is from historical data. The focuses on this paper is to measure the risk by calculating the value at risk.

In real life, we are facing with many uncertainties. Especially in the face of market movements of securities, it is necessary to establish a risk management system (Bogdan, Bareza, & Ivanovic, 2015). Managing risk means that we need to identify the risk, measure the risk, and assess the risk in order to minimize the impact of the risk on the financial result and equity.

Calculating Value at Risk (VaR) is one of the methods for measure the risk. VaR is quantile of the distribution of aggregate losses into single number (Klugman, Panjer, & Willmot, 2012). VaR is commonly used to measure the risk even though VaR is not a coherent measurement because it is not sub-additive, that is, it is possible to found the VaR of overall portfolio is greater than the sum of the VaR of each stocks on that portfolio (Degiannakis, Floros, & Livada, 2017), in mathematics notation it means that it is possible to have the following condition:

\[
\rho(X + Y) > \rho(X) + \rho(Y)
\]

where \(\rho(X), \rho(Y)\) denoted the risk measure and \(X\) and \(Y\) are two loss random variables.

On this paper, we use approaches using historical data and variance and standard deviation to calculate the VaR of companies listed on LQ45 by monthly time horizon in 6 years that is from January 2011 to December 2016.

2. LITERATURE REVIEW

Probability-based models provide description of risk exposure (Klugman, Panjer, & Willmot, 2012). The level of exposure to risk using VaR is described by single number that summarizes the total risk in portfolio. VaR has become the standard risk measure used to evaluate exposure to risk (Klugman, Panjer, & Willmot, 2012).

A risk measure is a function that mapping the loss random variable associated with the risks to the real set of real numbers which gives us a single number used to quantify the risk exposure. The example of the given single number by the risk measure are VaR, standard deviation, and the multiply of standard deviation. On this paper we denote the risk measure by \(\rho(X)\) follows (Klugman, Panjer, & Willmot, 2012), and it is an assets amount required in terms to protect against outcome of the risk \(X\) (Klugman, Panjer, & Willmot, 2012).

**Standard Deviation Principle** (Klugman, Panjer, & Willmot, 2012). Consider a loss distribution with mean \(\mu\) and standard deviation \(\sigma\), then \(\mu + k\sigma\) is risk measure. Where \(k\) is constant.

VaR has two parameters, these are, time horizon (denoted by \(T\)) and the confidence level (100p%). Both parameters are used to determine the loss level during a time period of length \(T\) that are 100p% certain will not be exceeded (Hull, 2009). Therefore, we have three main component in determining VaR, these are

1. A time horizon that we denoted by \(T\)
2. A confidence level interval or 100p%
3. The amount of VaR that we denoted by \(V\)

**Definition 1.** Let \(X\) denote a loss random variable. The Value-at-Risk (VaR) of \(X\) at the 100p% level, denoted \(VaR_p(X)\) or \(\pi_p\), is the 100\(_p\) percentile of the distribution of \(X\).
VaR calculated from random variable $X$ that has particular probability distribution and can be calculated from probability distributions of gains or losses during time period $T$. The illustration of calculating VaR using probability distribution of gain or losses are shown below: (Let $V$ is the VaR)

![Figure 1. Calculation of VaR using Gain Probability Distribution](image1)

![Figure 2. Calculation of VaR using Loss Probability Distribution](image2)

In other hand, if the distribution is more complex to analyst the risk, then we can use the simulation to estimate the VaR. In this paper we use two simulation to calculating VaR for market risk, for this case we use the data from 45 companies listed on LQ45 period January 2011 to December 2016 (monthly), using two methods: historical method and variance and covariance method.

Calculate VaR by historical method, we using past data as the key to predict what will happen in the future. We use the following formula to find the scenario that describe tomorrow’s market variables value (Hull, 2009)

$$V_{al_i} = \frac{v_i}{v_{i-1}}$$

where $V_{al_i}$ is the value under the $i$th scenario, $v_i$ is the market variables value on month $i$ (our data is monthly).

The second method we use on this research is variance and covariance method. This method assumes that the stocks return are normally distributed. There are some equation we use to find VaR using this method, these are
1. Return is calculated by the formula

\[ R = \frac{P_{t+1} - P_t}{P_t} \]

where \( P_t \) is the closing price on month \( t \), and \( R \) is return.

2. Variance is denoted by \( \sigma^2 \) and correlation between variable \( i \) and \( j \) is denoted by \( \rho_{ij} \). The formula to have covariance \( (\text{cov}_{ij}) \) of two variables \( i \) and \( j \) is

\[ \text{cov}_{ij} = \sigma_i \sigma_j \rho_{ij} \]

where \( \sigma_i \) is the monthly volatility (standard deviation) of variable \( i \). The formula to find variance of the portfolio \( (\sigma_p^2) \) is as follows

\[ \sigma_p^2 = \sum_{i=1}^{n} \sum_{j=1}^{n} \text{cov}_{ij} \alpha_i \alpha_j \]

where \( \alpha_i \) is the amount of asset invested on asset \( i \). The Variance-Covariance matrix is shown below:

\[
C = \begin{bmatrix}
\sigma_1^2 & \rho_{12} & \rho_{13} & \cdots & \rho_{1n} \\
\rho_{21} & \sigma_2^2 & \rho_{23} & \cdots & \rho_{2n} \\
\rho_{31} & \rho_{32} & \sigma_3^2 & \cdots & \rho_{3n} \\
\cdots & \cdots & \cdots & \cdots & \cdots \\
\rho_{n1} & \rho_{n2} & \rho_{n3} & \cdots & \sigma_n^2 
\end{bmatrix}
\]

The formula of \( \sigma_p^2 \) can be written as

\[ \sigma_p^2 = \alpha^T C \alpha \]

where \( \alpha \) is the column vector whose the \( i \)th elements is \( \alpha_i \) and \( \alpha^T \) is notation for transpose matrix of \( \alpha \).

3. RESEARCH METHODOLOGY

On this paper we use historical method and variance and covariance method to determine the VaR of the portfolio. The Figure below show us the flowchart of historical method and variance and covariance method.
Figure 3. Flowchart of Historical Method

To calculate scenario we use Equation (1) and to calculate $Percentile(X)$ we use the following formula

$$Percentile(X) = \frac{X(N+1)}{100}$$

Figure 4. Flowchart of Variance and Covariance Method

To calculate return we use Equation (2), while the others value such as $\text{cov}_{ij}$, $\sigma^2$ are determine by using the function provide in MATLAB.

4. RESULT

We use the data from closing price of companies listed on LQ45, period January 2011 until December 2016. Our parameter in this paper are: the time horizon is monthly and the confidence level is 95%.

Historical Data. By historical method, after we found all scenarios from all companies, then we determine the VaR of each companies as follows.

<table>
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<tr>
<th>Companies $i$</th>
<th>VaR each company</th>
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<tr>
<td>1</td>
<td>1.0e+004 *2.4276</td>
</tr>
<tr>
<td>2</td>
<td>1.0e+004 *0.0859</td>
</tr>
<tr>
<td>3</td>
<td>1.0e+004 *0.2898</td>
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<tr>
<td>4</td>
<td>1.0e+004 *0.1694</td>
</tr>
<tr>
<td>5</td>
<td>1.0e+004 *0.0074</td>
</tr>
<tr>
<td>6</td>
<td>1.0e+004 *5.5451</td>
</tr>
<tr>
<td>7</td>
<td>1.0e+004 *0.0315</td>
</tr>
<tr>
<td>8</td>
<td>1.0e+004 *0.6216</td>
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<tr>
<td>9</td>
<td>1.0e+004 *0.3776</td>
</tr>
<tr>
<td>10</td>
<td>1.0e+004 *0.5708</td>
</tr>
</tbody>
</table>
By define the VaR of the portfolio for this method is the sum of VaR of each company, then we have the VaR of LQ45 is 3.3910e+005, means the one-month 95% VaR is 3.3910e+005.

**Variance and Covariance Methods.** On this methods, we assume that the value of portfolio is the sum of the last period closing price of all companies. This value of portfolio is our \( \alpha \). We do not show the matrix \( C \) on this paper due to the size of the matrix \( C \) is 45 \( \times \) 45. The following figure show us the return for all companies in our data on the given period.

<table>
<thead>
<tr>
<th>Companies ( i )</th>
<th>VaR each company</th>
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<tr>
<td>12</td>
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<tr>
<td>13</td>
<td>1.0e+004 *0.0946</td>
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<td>14</td>
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<td>15</td>
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<td>1.0e+004 *4.1569</td>
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<td>18</td>
<td>1.0e+004 *2.6843</td>
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<td>21</td>
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<td>22</td>
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<td>23</td>
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<td>24</td>
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<td>25</td>
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<td>42</td>
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</tr>
<tr>
<td>43</td>
<td>1.0e+004 *1.6517</td>
</tr>
<tr>
<td>44</td>
<td>1.0e+004 *0.0727</td>
</tr>
<tr>
<td>45</td>
<td>1.0e+004 *0</td>
</tr>
</tbody>
</table>
By follow the flowchart shown on Figure 4, we found that the VaR of the LQ45 by this method is 1.3594e+005 which means by 95% of confidence level the portfolio will not lose more than 1.3594e+005 rupiahs for the next month.

5. CONCLUSION

According to the result above, we conclude that VaR can be use to measure the risk of the portfolio. Using LQ45 as our data, monthly time horizon and 95% of confident level we found that the VaR of the portfolio using historical approaches is 3.3910e+005, which means the portfolio will not lose more than 3.3910e+005 rupiahs for the next month. With the same of time horizon and confident level, by using variance and covariance approaches we found the portfolio VaR is 1.3594e+005 which means by 95% of confidence level the portfolio will not lose more than 1.3594e+005 rupiahs for the next month.

6. FUTURE RESEARCH

This research does not show us the accuracy and the clear interpretation of the result using both methods. On the next research the accuracy and the interpretation are important to explain.

REFERENCES

The objective of this research is to find out the influence of financial performance, intellectual capital and the existence of managerial ownership toward firm value. The samples are consumer goods manufacturing companies which are listed in Indonesia Stock Exchange in 2014-2016. The sample collection is using purposive sampling and 42 companies firm-years are obtained as the samples. This research has been done by using multiple regression analysis. The result of the research shows financial performance has positive influence to the firm value but not significance, the intellectual capital is significance and influences the firm value positively, the existence of managerial ownership is not significance in influencing the firm value.

**Keywords:** Financial performance, intellectual capital, managerial ownership

1. **INTRODUCTION**

Financial performance is the result of company activities and also become the measurement of the company success. Pertiwi and Pratama (2012) had been conducted the measurement of financial performance by using some method, such as Return on Asset (ROA). Return on Asset (ROA) is the most popular ratio for evaluating the company performance. ROA shows the efficiency of the company when using its assets, the more efficient the company is, the more profit generated by the company.

Recently, financial performance can be manipulated, so the investors value the company not only from financial performance but also from both financial and non-financial performance of the company. To avoid that, many companies realized the importance of good corporate governance (GCG). Bad corporate governance makes the investors think twice to invest (L’Huillier, 2014). To achieve the better firm value, the company tries to maximize the
value. However in the process of maximize the firm value, the managers sometime have conflict of interest that the decision they have taken are reflecting more on their individual goal which is not the best one for the company. Bad corporate governance creates the conflict between company (agent) and stakeholders (principal). The difference of interest between the company (agent) and shareholders create the agency problems, where the management of the company acts by their own interest and sacrifice the stakeholders’ interests. In order to reduce the agency problem, the managerial ownership can be used as one of the tools for management control to minimize the manipulation of financial statement (Bendickson et al., 2016). The owners provide opportunity for the managers to own the company’s share. It means, the managers are now become the owners as well.

Beside financial performance and good corporate governance, intellectual capital also affects the firm value (Nielsen, 2010). The performance of company not only valued by the financial performance but also by the non-financial performance of company. Intellectual capital can be called as the board-based term of intangible assets (Nielsen, 2010). Usually intellectual capital is divided into three categories such as customer capital, human capital and structural capital. These three categories of intellectual capital increase the firm value. The method for rating the intellectual capital indirectly is using Value Added Intellectual Coefficient (VAIC™). VAIC™ consists of customer capital known as Value Added Capital Employed (VACA), human capital as Value Added Human Capital (VAHU), and structural capital as Structural Capital Value Added (STVA) (Pulic, 1998).

2. LITERATURE REVIEW

Agency theory is the theory where the management is the agent and the owner is the principal. Agency problem means the difference of interest between the principal and the agent that arise some conflicts. (Jensen and Meckling, 1976). Informational asymmetry happens when the principal cannot directly monitor what the agent do or do not have enough information. Goal conflict is the conflict that happens when the agent and principal have different interests and try to fulfill their own interest. The agent wants to have higher income with lower efforts and the principal wants higher return from the investment (Jensen and Meckling, 1976 in Priyadi, 2017). If the goal conflict cannot be managed well, then it will decrease the company performance, and at the end, reducing the firm value.

Financial performance is one factor that shows the efficiency and effectiveness of the company. The company can be called effective if the company be able to achieve the goals. Efficient can be a ratio between input and output (Capkun, 2009).

There are times that the performance the company can go down or go up. The way to know the company performance is used by ratios. The measurement of performance using the ratios every some period is useful for the company to improve the performance and to help the management to take the right decision and also can create the value of firm (Disegni, 2015). Return on assets, as one of the financial ratios, can measure the efficiency of the company. Return on assets (ROA) is used to measure the performance of the company in using the assets to generate the profit.

Managerial ownership is the management that has share of the company that actively in taking decision. Managerial ownership is also the percentage of shares that owned by the company. The managerial ownership is used in order to minimize the agency conflict. This is
because managerial ownership is the monitoring tools towards manager performance. The more the managerial ownership in company has, the more the management will increase the performance because the management has responsibility for fulfilling the shareholder’s interest who are none other than themselves by reducing the risk of corporate finance through decreasing the level of debt. (Ruan et al., 2011). Ramadonal and Lukviarmam (2011) research shows that the managerial ownership can minimize the agency problem towards the firm value.

Intellectual capital can be called as the board-based term of intangible assets. Intellectual capital is all non-intangible or non-physical assets or resources that include the process, innovation, knowledge in the company. Intellectual capital is also used to create the stakeholder value. Intellectual capital divided by three categories such as customer capital (VACA), human capital (VAHU) and structural capital (STVA) (Molodchik et al., 2012).

The first element of value added intellectual capital is value added customer capital (VACA), VACA is the important resource for the company to gain the income. The customer capital identifies how the company can fulfill the customers’ needs. Customer capital is the knowledge that the company has to create the relationships with customers (Molodchik et al., 2012).

The second element of value added intellectual capital is value added human capital (VAHU). VAHU is the knowledge, skills that the employees had in order to obtain or achieve something in operational or non-operational activities. The good of human capital in the company is rated based on how the company can develop the potency of employees (Molodchik et al., 2012).

The last element of value added intellectual capital is value added structural capital (STVA). STVA is the infrastructure that the company has to fulfill the market needs. Structural capital becomes a support tool of human capital to develop the human skills. Structural capital will always be used along with the operational activities. (Molodchik et al., 2012).

The company has goals to maximize the firm value. The higher firm value means the more successful company in the market. The firm value in the market becomes the measurement for investor to take decision for investing or not. The higher firm value, the higher chance investor to invest (Eberhart, 2012).

The decision to invest in the company depends on the value that the company have. The alternatives to measure the firm value are Tobin’s Q. Tobin’s Q shows the estimation of return of investment. If the value of firm is higher, the company have strong brand image. It also means the profit is getting higher than the expenses (Tobin, 1967 in Indrajaya, 2015).

The usage of intellectual capital will be possible to increase the firm value and achieving the advantages of competition. When the non-financial performance of the company such as employee’s skill is increasing, it will affect the performance of the company. That is why the firm value will be possible to increase. Measurement intellectual capital toward firm value using Tobin’s Q shows the fundamental aspect and also how the market values the firm in various aspects that can be seen by investor. Tobin’s Q can show the market value of firm that reflected to future of the firm such as profit. The hypothesis is:

**Hypothesis 1:** Intellectual capital influences the firm value.
Investors value the firm with the ratio as a tool for investing because the ratio shows the low of high value the firm has. The ratio is used to measure the financial performance is ROA. ROA shows the profitability of the company. If the ROA of the company is high, the efficiency of the company when using its asset to generate the profit is also high. Therefore it will motivate the investor to invest in the firm. The hypothesis is:

**Hypothesis 2: Financial performance influences the firm value.**

In previous research by Ramadonal and Lukviarman (2011) the managerial ownership can be able to decrease the agency problem between agent and principal. Increasing the owner shares of manager will be motivated the manager to increase the performance and the possibility do the action according to shareholders’ needs. The hypothesis is:

**Hypothesis 3: The existence of managerial ownership influences the firm value.**

Based on the explanation above, the model that will be used in this research is shown in figure 1.

![Research Model](image)

**Figure 1.** Research Model

### 3. RESEARCH METHOD

This quantitative research will use secondary data from Indonesia Stock Exchange in consumer goods manufacturing sector from 2014-2016. Using purposive sampling, from 33 companies, there are only 14 companies chosen by the criteria set by the researcher. With 14 companies, there is 42 sample companies-firm years.

The independent variables in this research are intellectual capital, financial performance and good corporate governance. The intellectual capital is the total of human capital (VAHU), customer capital (VACA), structural capital (STVA) that has relationship with the firm value. The intellectual capital model developed by Pulic (1998) is VAICTM

The first step to calculate VAICTM is to find the value added (VA). VA is the variance of input and output (Pulic, 1998).

\[
VA = OUT - IN
\]

**VA:** Value Added. The value added is derived from reduction of OUT with IN.

**OUT:** The total of sales and other income (included finance income).

**IN:** The expenses (except employee expense such as wages, salary, and welfare) and costs
Value Added Capital Employed or VACA is the important resource for the company to gain the income. VACA is the comparison between value added and capital employee (Pulic, 1998).

\[
V\text{ACA} = \frac{\text{Value Added}}{\text{Capital Employed}}
\]

VA: Value Added is the total of sales and income (included other and finance income) minus by the total expenses (exclude employee expenses such as salary, wages, welfare) and cost (included cost of goods sold and finance cost)

CA: Capital Employed is the fund that available (Total Equity of the company) (Pulic, 1998).

Value Added Human Capital or VAHU is the knowledge, skills that the employees had in order to obtain or achieve something in operational or non-operational activities. VAHU is the comparison between value added and human capital (Pulic, 1998).

\[
V\text{AHU} = \frac{\text{Value Added}}{\text{Human Capital}}
\]

VA: Value Added is the total of sales and income (included other and finance income) minus by the total expenses (exclude employee expenses such as salary, wages, welfare) and cost (included cost of goods sold and finance cost)

HC: Human Capital is taken from the total of salary, wages and welfare of employees (Pulic, 1998).

Structural Capital Value Added or STVA becomes a support tool of human capital to develop the human skills. Structural capital will always be used along with the operational activities. STVA is the comparison between structural capital and value added (Pulic, 1998).

\[
S\text{TVA} = \frac{\text{Structural Capital}}{\text{Value Added}}
\]

VA: Value Added is the total of sales and income (included other and finance income) minus by the total expenses (exclude employee expenses such as salary, wages, welfare) and cost (included cost of goods sold and finance cost)


VAIC is how much the value that created from every resource. The higher value of VAIC, the higher value added of the company (Pulic, 1998).

\[
V\text{AI}C^{TM} = V\text{ACA} + V\text{AHU} + S\text{TVA}
\]

VAIC: value added intellectual capital
VACA: value added capital employed
VAHU: value added human capital
STVA: structural capital value added

The second independent variable is financial performance. In this research the measurement to measure the financial performance is ROA. Return on assets is used to measure the performance of total assets in generating the profit (Pleshko et al., 2014).
ROA = \frac{Net \ Profit \ after \ Tax}{Total \ Assets}

Net profit after tax is net profit that is gained by the company from net operating income or from non-operating income in a period and be reduced by income tax.

Total assets are the total amount of economic value that gives the benefit in the future. The value of asset is the result of liability and equity. The percentage of ROA is already reflected from company’s liability and equity. But, for example, comparing to return on equity, if the percentage of ROE is high, it does not mean the financial of the company is healthy, because in ROE, the liability of the company is not included. It may be the liability of the company is higher than its equity (Pleshko et al., 2014).

The third independent variable is managerial ownership as mechanism of good corporate governance. The managerial ownership is used to measure the corporate governance of the company towards firm value. The managerial ownership is measured by using dummy variable, where the managerial ownership will be given one if the management of the company have shares and zero if the management of the company does not have shares (Asward and Lina, 2015).

The dependent variable in this research is firm value. The measurement of firm value is Tobin’s Q (Tobin, 1967 in Indrajaya, 2015).

\[ Q = \frac{Equity \ Market \ Value}{Total \ Asset} \]

Equity market value is taken from the total of outstanding shares multiplied by current share price in that year.

Total assets are the total amount of economic value that gives the benefit in the future. This information can be taken from financial statement of the company (Tobin, 1967 in Indrajaya, 2015).

The multiple regression analysis can be measured partially implied by coefficient of partial regression. The form of multiple linear regression equation as follows:

\[ \text{Firm Value} = \beta_0 + \beta_1 \text{Intellectual Capital} + \beta_2 \text{Financial Performance} + \beta_3 \text{Managerial Ownership} + e \]

4. RESULTS AND DISCUSSIONS

Descriptive Statistical Analysis

<table>
<thead>
<tr>
<th>Variables</th>
<th>Sample</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intellectual Capital</td>
<td>42</td>
<td>2,19</td>
<td>10,82</td>
<td>4,22</td>
<td>2,01</td>
</tr>
<tr>
<td>Financial Performance</td>
<td>42</td>
<td>0,02</td>
<td>0,36</td>
<td>0,10</td>
<td>0,06</td>
</tr>
<tr>
<td>Managerial Ownership</td>
<td>42</td>
<td>0</td>
<td>1</td>
<td>0,55</td>
<td>0,50</td>
</tr>
<tr>
<td>Firm Value</td>
<td>42</td>
<td>0,00</td>
<td>20,1</td>
<td>4,78</td>
<td>5,99</td>
</tr>
</tbody>
</table>
Source: Secondary data were processed

Based on the table, VAIC\textsuperscript{TM} of consumer goods manufacturing companies have minimum value is 2,19 and the maximum value is 10,82, the mean of VAIC\textsuperscript{TM} is 4,22 which means the average of consumer goods manufacturing companies’ VAIC\textsuperscript{TM} is 4,22, while standard deviation is 2,01 which means the data that spreads out of mean about 68% of values in the range of 2,21 – 6,23, 95% of values in the range of 0,20 - 8,23 and anything below -1,81 and above 10,25 is very rare (Garson, 2012, p. 9).

Based on the table, ROA of consumer goods manufacturing companies have minimum value is 0,02 and the maximum value is 0,36, the mean is 0,10 which means the average of consumer goods manufacturing companies’ ROA is 0,10, while standard deviation is 0,056 which means the data that spreads out of mean about 68% of values in the range of 0,05 – 0,16, 95% of values in the range of -0,01 - 0,21 and anything below -0,06 and above 0,27 is very rare (Garson, 2012, p. 9).

Based on the table, MO of consumer goods manufacturing companies have minimum value is 0 and the maximum value is 1, the mean of MO is 0,55 which means the average of consumer goods manufacturing companies’ MO is 0,55, while standard deviation is 0,5 which means the data that spreads out of mean about 68% of values in the range of 0,05 – 1,05, 95% of values in the range of -0,05 - 1,56 and anything below -0,96 and above 2,06 is very rare (Garson, 2012, p. 9).

Based on the table, Tobin’s Q of consumer goods manufacturing companies have minimum value is 0,00 and the maximum value is 20,10, the mean of Tobins’ Q is 4,78 which means the average of consumer goods manufacturing companies’ Tobins’ Q is 4,78, while standard deviation is 5,99 which means the data that spreads out of mean about 68% of values in the range of -1,21 – 10,78, 95% of values in the range of -7,20 - 16,77 and anything below -13,20 and above 22,76 is very rare (Garson, 2012, p. 9).

![Normal P-P Plot of Regression Standardized Residual](image)

**Figure 2.** Normal P-P Plot of Regression Standardized Residual

**Source:** Secondary data were processed
Based the normal probability plot that the data pattern spreads around the diagonal line and follow the line, so can be concluded that the data is normally distributed. Beside normal probability plot, Kolmogorov-Smirnov test is also used (Garson, 2012, p. 35). From Kolmogorov-Smirnov Test, it can be seen that the significant value of the variable is 0.200. Since it is higher than 0.05, then the data in this research is normally distributed (Garson, 2012, p. 35).

<table>
<thead>
<tr>
<th>Model</th>
<th>Variables</th>
<th>Tolerance</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Intellectual Capital</td>
<td>0.44</td>
<td>2.28</td>
</tr>
<tr>
<td></td>
<td>Financial Performance</td>
<td>0.47</td>
<td>2.12</td>
</tr>
<tr>
<td></td>
<td>Managerial Ownership</td>
<td>0.79</td>
<td>1.27</td>
</tr>
</tbody>
</table>

Source: Secondary data were processed

From the data above, the tolerance value of variables are 0.47, 0.44, 0.79 and the values are not less than 0.10 and VIF values are 2.12, 2.28, 1.27 and there are no VIF values is more than 10. So can be concluded the variables are not multicollinearity or do not have strong relationship between independent variables (Garson, 2012, p. 44-45).

![Scatterplot](image)

Figure 3. Scatterplot
Source: Secondary data were processed

Based on the scatterplot graphic, the dots spread randomly under and upper Y axis so can be concluded that the residual data is not heteroscedasticity (Santoso S, 2017, p. 367).

<table>
<thead>
<tr>
<th>Model</th>
<th>Durbin-Watson</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2.363</td>
</tr>
</tbody>
</table>

Source: Secondary data were processed
From the table above, the value of Durbin-Watson is 2.363 which is within du (1.60608) and 4-du(2.39392), so can be concluded that there is free autocorrelation in the model (Garson, 2012, p. 47).

Determination of coefficient is used to measure how well observed outcomes are replicated by the model. The determination of coefficient shows the proportion of the variance in the dependent variable can be predicted by the independent variables.

Table 4. Model Summary

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.769a</td>
<td>0.592</td>
<td>0.56</td>
</tr>
</tbody>
</table>

Source: Secondary data were processed

Based on the table, the adjusted R square is 0.560, this value means the variable independent influence the variable dependent is about 56%, while 44% is influenced by another factors that are not be researched (Garson, 2012, p. 42).

Table 5. ANOVA

<table>
<thead>
<tr>
<th>Model</th>
<th>Sum of Squares</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Regression</td>
<td>290,712</td>
<td>18,387</td>
</tr>
<tr>
<td></td>
<td>Residual</td>
<td>15,811</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Secondary data were processed

Based on the table 5, the F value is 18.387 and the significance value is 0.000. The probability of significance is less than 0.05 which means the model regression is fit (Garson, 2012, p. 42-43).

Table 6. Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>B</th>
<th>T</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>-5.131</td>
<td>-2.843</td>
</tr>
<tr>
<td></td>
<td>Intellectual Capital</td>
<td>2.21</td>
<td>4.732</td>
</tr>
<tr>
<td></td>
<td>Financial Performance</td>
<td>4.961</td>
<td>0.305</td>
</tr>
<tr>
<td></td>
<td>Managerial Ownership</td>
<td>0.135</td>
<td>0.097</td>
</tr>
</tbody>
</table>

Source: Secondary data were processed

Y (Firm Value) = -5.131 + 2.210 Intellectual Capital + 4.961 Financial Performance + 0.135 Managerial Ownership

Table 7. Summary of Hypothesis Result

<table>
<thead>
<tr>
<th>Variables</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 Intellectual Capital</td>
<td>Supported</td>
</tr>
<tr>
<td>H2 Financial Performance</td>
<td>Not Supported</td>
</tr>
<tr>
<td>H3 Managerial Ownership</td>
<td>Not Supported</td>
</tr>
</tbody>
</table>

Source: Secondary data were processed
Based on the test, H1 is supported because the significance value of intellectual capital is 0.000 with the positive coefficient regression is 2.210. H2 is not supported because the significance of financial performance is 0.762 with positive coefficient regression is 4.961. H3 is not supported because the significance of managerial ownership is 0.923 with the positive coefficient regression is 0.135.

The influence of intellectual capital (VAIC\textsuperscript{TM}) towards firm value

Based on the test, H1 is supported. From the table, the significance value of VAIC\textsuperscript{TM} is 0.000 with the positive coefficient regression is 2.210. The result of positive coefficient regression means that if the intellectual capital is higher, so the firm value is also higher. When the non-financial performance of the company such as employee’s skill is increasing, it will positively affect the performance of the company. That is why the firm value will be possible to increase. The significance value of VAIC\textsuperscript{TM} is less than 0.05 which means the intellectual capital influences significantly toward firm value. This research support the research that conducted by Indrajaya (2015) and also consistent that the intellectual capital positively significance towards firm value.

The influence of financial performance (ROA) towards firm value

Based on the test, H2 is not supported. Tabel 7 shows that the significance of ROA is 0.762 but the coefficient regression is 4.961. The result of positive coefficient regression means that if the financial performance is higher, so the firm value is also higher but the significance value of ROA is more than 0.05 which means financial performance does not influence significantly toward firm value.

This research support the research that conducted by Suhendra (2015). This is caused by many companies try to manipulate their financial statement in order to have high firm value for attracting the investor. When the financial statement can be manipulated, it is difficult to measure the firm value.

The influence of corporate governance (MO) towards firm value

Based on the test, H3 is not supported. From the table, the significance of MO is 0.923 with the positive coefficient regression is 0.135. The significance of MO is higher than 0.05 which means the existence of managerial ownership does not influences significantly toward firm value. The stakeholders do not believe to the management of the company yet because the stakeholders think that the commissioners do not have enough knowledge about their company.

5. CONCLUSION

Based on the result of multiple regression analysis, the conclusions of this research can be taken. First, the result of the analysis shows the intellectual capital influence the firm value positively which means if the intellectual capital of the company is higher, the firm value is also higher. Second, the result of ROA shows that the higher of ROA, the firm value also increase but not really increase significance to the firm value. The last, the result of
managerial ownership shows that the managerial ownership does not influence significance to the firm value. This is caused by the managerial ownership structure in Indonesia is still small and dominated by family (Kamardin, 2014). The stakeholders do not believe to the management of the company yet because the stakeholders think that the commissioners do not have enough knowledge about their company.

In this research, researcher only take consumer goods manufacturing sector from 2014 until 2016 on Indonesia Stock Exchange with three variables consists of intellectual capital, financial performance, managerial ownership and for measuring the financial performance only uses one measurement which is ROA. For the next research, the researchers can add more samples, sectors and more variables to reflect the overall of market. The researcher can also extend the time period of the data and using more measurements.

6. REFERENCES


Understanding and measuring supply chain performance in large companies is important to achieve cost efficiency or other companies KPI. Alas, very few academic literature or framework found that focus on measuring supply chain performance of SME. So far SME in Indonesia develop their supply chain activities organically. This research aims to identify and to measure the responsiveness and reliability of supply chain management which is implemented by BKG Miniature Guitar in Paguyuban Kampung Guitar Pangalengan, West Java, Indonesia. The descriptive qualitative research was conducted by applying purposive sampling as the sampling technique and carrying out an interview to a single determined informant as the data collection technique. SCOR model 12.0 from Association for Supply Chain Management (APICS) considered as the tool for data analysis. It had been found that, in regard to the reliability, BKG Miniature Guitar’s performance reached up to 92.8%, which could be considered into excellent category, and responsiveness for 17.78 days. According to the calculation on source, make and deliver, BKG should to improve and evaluate on their source process, due to a low-level of POF metric value 64.27%, it seems sensible to expect that there will be enhancements in supply chain performance of BKG.

Keywords: Supply Chain Management, Reliability, Responsiveness, Small and Medium Enterprise, SCOR

1. INTRODUCTION

We use technology to do specific tasks in our daily lives. The increasing use of information, communication and technology has a very important role for all aspects of life; including the advancements in the fields of health, transportation, education, social and business. There are very significant benefits in the field of transportation and business. One of them is the ease of access and information on sales, suppliers, raw materials, distribution, customers, finance and marketing media. All aspects of this easiness as one of the benefits of technological progress and are part of supply chain management. The application of supply chain concept in small business plays an important strategic function to survive and sustain.
According to I Nyoman Pujawan (2017), in general that the supply chain management (SCM) is all works related to the flows of material, information and finance in the supply chain; all of which are considered as the activities in SCM coverage. If there is an excellent application, there will be easiness in the implementation of supply chain, fulfilment of resources and its marketing. There are also some problems often faced from low level of supply chain implementation, among which are difficulties in marketing and limited access on resources, raw materials, innovation and technology.

SMEs play an important role for economic growth and social inclusion in Indonesia. Based on data from the Ministry of Co-operatives and SMEs, Indonesian SMEs account for nearly 97% of domestic employment and for 56% of total business investment (OECD.org, 2018). This study wants to measure the implementation of supply chains in the SME industry because there is only a few of research or academic literature about supply chains management in SME. The selected small business is BKG Miniature Guitar, a small business that focuses on the woodcraft industry. They make handicraft products such as mini-guitars, necklaces and key chains with a customized design which employed around 35 workers and located in Pangalengan, West Java. Their products’ prices are higher than their competitors in Bali and Jogjakarta about 20% but their products are known to have better quality than other producers. BKG sell their products to Java and Bali in Indonesia and a few countries in Europe. They know and reach out BKG through YouTube and Instagram, and then contact the BKG by email and WhatsApp text messages.

The ability of small businesses to survive is determined by producing more products, less defect with lower cost. Their difficulties in fulfilling orders, planning material stocks from suppliers to distributing products to consumers are things that can be understood through supply chain performance analysis. BKG has implemented SCM based on its own way, starting from purchasing of raw material from suppliers, producing woodcraft, logistic activities, distributing of finished goods to consumers, and currently, they do not understand whether is in good or poor supply chain performance that can contribute to business efficiency. BKG has insufficient knowledge about supply chain management. BKG always tries to fulfill all customer orders by fulfilling the amount and delivery schedule but some orders that come from abroad are always in large numbers and experience late delivery. They have never measured the performance of their supply chain activities or standards and not record all data related to their operations, making it difficult for planning and improvement.

The objective of supply chain management is to increase customer service level while reducing supply chain cost and raising profit by managing the flow of material. Evaluation of supply chain implementation helps to determine whether operational targets and efficiency have been achieved. There are many tools for measuring supply chain performance and one of them is the SCOR model, a Supply Chain Operation Reference model. The SCOR Model is a tool issued by APICS and used to measure the performance of the supply chain both externally and internally in the success of the company’s business. SCOR Model Assessment begins with attributes of reliability, responsiveness, and agility as external assessments and management of costs and assets as measurements of internal attributes. This study wants to find out the current state of supply chain performance for small businesses such as BKG Guitar from the perspective of the SCOR model by using SCOR parameters or metrics, a tool used by companies with high-performance supply chains in their industries. From the SCOR model, this research will only focus on two attributes, namely reliability, and responsiveness. The choice of these two attributes is caused by the limited data availability data for the other three attributes by the business owner.
2. LITERATURE REVIEW

SMEs Definition in Indonesia

The Indonesian Law Number 20 of 2008 concerning Micro, Small and Medium Enterprises (MSMEs) clearly states the difference between MSMEs and SMEs based on the criteria of assets and turnover, as follow (table 1). According to the Indonesian Central Statistics Agency, medium-sized businesses are divided into several sections, namely: (i) Household Businesses have: 1-5 workforce, (ii) Medium-scale enterprises: 6-19 labor, (iii) Medium business: 20-29 labor, (iv) Large businesses: more than 100 workers.

<table>
<thead>
<tr>
<th>No</th>
<th>Type of Enterprise</th>
<th>Enterprise Size</th>
<th>Revenue per year</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Micro</td>
<td>Max. IDR 50M</td>
<td>Max. IDR. 300M</td>
</tr>
<tr>
<td>2</td>
<td>Small</td>
<td>&gt;IDR. 50M – 500M</td>
<td>&gt;IDR. 300M – 2500M</td>
</tr>
<tr>
<td>3</td>
<td>Medium</td>
<td>&gt;IDR. 500M – 1000M</td>
<td>&gt;IDR. 2500M – 50000M</td>
</tr>
</tbody>
</table>

Supply Chain Management in Small Business Enterprise

The main focus of SCM is to provide right product to the right customers at the right cost, right time, right quality and right quantity (Basher, 2010). Several definitions of supply chain management (SCM), like, some say as an integration philosophy for managing the total flow of distribution channels from suppliers to end customers, managing upstream and downstream relationships with suppliers and customers to provide superior customer value at less cost to the overall supply chain, simultaneous integration of customer requirements, internal processes, and performance of upstream suppliers. There are different definitions but still have the same features, including end to end coordination and focus on integration with other entities in the chain to provide value to end customers (Meehan and Muir, 2008; Baymout, 2015). The importance of effective SCM must be seen as a competitive advantage: professional practice which is one of the hearts of corporate organizational strategies (Quayle, M., 2003).

Many researchers have shown that SMEs can role as suppliers, producers, distributors, and customers, which have shown a significant impact on supply chain performance. The definition of SCM for SMEs as a set of business activities includes open market purchases, manufacturing or processing of subcomponents in factories, and shipping to large companies using leased transportation to increase the value of end products and in turn ensure long-term regular purchase orders (Thakkar, J., Kanda, A., and Deshmukh, S., 2008). Superior quality, features, and customer service are methods that are often used by SMEs to differentiate their products and services from those owned by larger commercialized companies (Baymout, M., 2015).

Supply chain inefficiency is still one of the most essential issues facing the SMEs. The implementation of SCM in SMEs has several obstacles or supporting factors in the organization, such as (1) supporting factors for successful implementation in terms of value, risk, methods, and visibility throughout the supply network; (2) barriers to successful implementation such as lack of finance, high demand levels; high intensity of competition; lack of managerial skills; the absence of a framework for building alliances among supply chain partners; IT is considered a function and not as part of a business strategy; lack of integrated information systems; and the lack of tools to measure the effectiveness of supply
chain alliances, and (3) the effect of supply chain management on SMEs is mostly SME do not have a formal structured departments and they are becoming more important as entity in decision making for their innovation and partnership coordination integration (Baumot, 2015). Customer demand for better and cheaper products, more product varieties and faster delivery along with several operational parameters such as fluctuating demand cycles, project-specific demand, and lack of collaboration, poor transportation and distribution networks make SMEs very difficult to grow in the global market because. These challenges emphasize the importance of managing the supply chain and determining effectiveness from an SME perspective (Narkhede1 & Rajhans, 2018).

The SCOR Model and Research Method

The Supply Chain Operations Reference (SCOR) model developed by Supply Chain Council, which is an independent non-profit organization to evaluated implementation of supply chain management in the industry level. The SCOR model describes the business activities associated with all phases of satisfying a customer’s demand. The model itself is organized around the six primary management processes of Plan, Source, Make, Deliver, Return and Enable and SCOR performance attributes were divided into 5 items, that is reliability, responsiveness, agility, cost and asset management efficiency (APICS The SCOR 12.0). From 3 months of transaction data (September to November 2018) will be processed according to the rules in measuring reliability and responsiveness as performance attributes in the SCOR model. Reliability is the ability to perform tasks as expected that focuses on predictability of the outcome of a process and typical metrics included: On-time, the right quantity, the right quality; while responsiveness is the speed at which tasks are performed. The speed at which a supply chain provides products to the customer. Examples include cycle-time metrics (apics.org, 2019).

A metric in the SCOR model is a standard for measurement of the performance of a supply chain or process. SCOR metrics are diagnostic metrics (compare to how diagnosis is used in a medical office). SCOR recognizes three levels of pre-defined metrics: Level-1 metrics are diagnostics for the overall health of the supply chain. These metrics are also known as strategic metrics and key performance indicators (KPI). Benchmarking level-1 metrics helps establishing realistic targets to support strategic directions. Level-2 metrics serve as diagnostics for the level-1 metrics. The diagnostic relationship helps to identify the root cause or causes of a performance gap for a level-1 metric. Level-3 metrics serve as diagnostics for level-2 metrics. The analysis of performance of metrics from level-1 through 3 is referred to as metrics decomposition, performance diagnosis or metrics root cause analysis. Metrics decomposition is a first step in identifying the processes that need further investigation. (Processes are linked to level-1, level-2 and level-3 metrics).

Table 2. Reliability and Responsiveness Measurement Metrics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reliability</td>
<td>( POF = \frac{\text{total perfect orders fulfillment}}{\text{total number of orders}} \times 100% )</td>
</tr>
<tr>
<td>Responsiveness</td>
<td>( OFCT = \frac{\text{actual number of time cycle for all sent orders}}{\text{Total number of sent orders}} )</td>
</tr>
</tbody>
</table>

Source: The SCOR Model 12.0 by APICS.org
### Table 3. Reliability and Responsiveness on Source, Make and Deliver

<table>
<thead>
<tr>
<th>Process Condition</th>
<th>Metrics</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source</td>
<td>Delivery Performance to Customer Commit Date</td>
<td>Total number of supply on the original commitment date ( \times 100% ) Total number of delivered orders</td>
</tr>
<tr>
<td></td>
<td>Source Cycle Time</td>
<td>Total of duration time in procurement ( \times 100% ) Total number of orders</td>
</tr>
<tr>
<td>Make</td>
<td>% of Orders Delivered in Full</td>
<td>Total number of delivered orders in full ( \times 100% ) Total number of delivered orders</td>
</tr>
<tr>
<td></td>
<td>Make Cycle Time</td>
<td>Total of duration time in production ( \times 100% ) Total number of orders</td>
</tr>
<tr>
<td>Deliver</td>
<td>Perfect Condition</td>
<td>Number of delivered orders in Perfect Condition ( \times 100% ) Number of delivered orders</td>
</tr>
<tr>
<td></td>
<td>Deliver Cycle Time</td>
<td>Total of duration time in delivery ( \times 100% ) Total number of orders</td>
</tr>
</tbody>
</table>

Source: The SCOR Model 12.0 by APICS.org

This study attempts to apply the SCOR model matrices to measure the current state of SME supply chain performance where they take action as a producer of woodcrafts. The purpose of this study is to find out which metrics of reliability and responsiveness of the SCOR model function to identify problems or weaknesses in their supply chain activities. The SCOR model attributes were discussed are only reliability and responsiveness. Other attributes, such as agility, management of cost and asset were excluded because there was no sufficient data available to use for analysis. Reliability measures % of orders delivered in full, delivery performance to customer commit date, documentation accuracy, and perfect condition. Responsiveness measures source cycle time, make cycle time, delivery cycle time and delivery cycle time. The research analysis follows the SCOR Model guidelines. BKG business owners have a role as business and operations managers, and their wives as financial managers; both are sources of data and information for this study using a qualitative approach through interviews. Data on business transactions within 3 months with clients is collected through crawling data from WhatsApp messenger and email because they do not keep all records of purchase orders in formal records. The final stage of this research is the conclusion to be used for classification of supply chain performance by BKG, and recommendation of company evaluation to improve their performance.
3. RESULT AND DISCUSSION

Calculation of reliability and responsiveness metrics on level 1 mapping is used to measure the performance of BKG through POF and OFCT metrics. Calculation of data shows that the POF performance of the BKG is only 92.8% and OCFT is 17.78 days, which means that the level of perfect order fulfillment according to customer demand is 92.8% and the time needed to fulfill each order for three months averaged 17.78 days (table 4).

Table 4. Results of Reliability and Responsiveness Metric

<table>
<thead>
<tr>
<th>Performance Attribute</th>
<th>Level 1 Metric</th>
<th>Actual Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCOR - Reliability</td>
<td>POF (%)</td>
<td>92.8%</td>
</tr>
<tr>
<td>SCOR - Responsiveness</td>
<td>OFCT (days)</td>
<td>17.78 days</td>
</tr>
</tbody>
</table>

Source: Author calculation based on 3 month transaction data.

Mapping and Metric Level 1. Level-1 metrics are diagnostics for the overall health of the supply chain or also known as KPI (key performance indicator). POF and OFCT calculation seen from supply chain process namely source, make and deliver are POF source score was only 64.27% (table 5). It is the lowest score in POF, caused by limited availability of raw materials. BKG always uses the best quality raw materials to ensure the quality of their finished goods but only a few suppliers can provide them around their location (3 suppliers). BKG also does not store raw materials in warehouses but only orders suppliers if they receive orders from consumers. This makes them very dependent on the availability of the amount of material in the supplier when they want to be bought and have to wait several days until the supplier can provide more materials. This low score also will have an effect as an obstacle to other processes, especially to start finished goods production and eventually will cause delays in the delivery of products.

Table 5. Calculation Results of POF on Source, Make and Deliver

<table>
<thead>
<tr>
<th>Source</th>
<th>POF Source = ( \frac{9}{14} \times 100% )</th>
<th>64.27%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make</td>
<td>POF Make = ( \frac{8494}{8816} \times 100% )</td>
<td>96.35%</td>
</tr>
<tr>
<td>Deliver</td>
<td>POF Deliver = ( \frac{8484}{8494} \times 100% )</td>
<td>99.8%</td>
</tr>
</tbody>
</table>

Source: Author calculation based on 3 month transaction data.

Table 6. Calculation Results of OFCT on Source, Make and Deliver

<table>
<thead>
<tr>
<th>Source</th>
<th>OFCT Source = ( \frac{19}{14} )</th>
<th>1.35 days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Make</td>
<td>OFCT Make = ( \frac{184}{14} )</td>
<td>13.14 days</td>
</tr>
</tbody>
</table>
Level 2 Mapping. Level 2 mapping is to determine the overall supply chain process activities at BKG. Based on the existing mapping, BKG already has a plan in the process of implementation, and only encountered a few small obstacles in several processes. (fig. 1). BKG received 14 purchase orders in a period of 3 months coming from local Indonesia and abroad. They can fulfill all orders with an almost perfect level of fulfillment and produce up to 8,816 units of woodcraft products with low defect rates and no product returns from customers. Problems that need attention or the obstacle that can slow them down is the availability of raw materials from suppliers, do not have raw material stock and do not have historical data for planning to estimate the next order.
Level 3 Mapping. Level 3 mapping illustrates the decomposition of the process from the results of level 2 mapping which is the phase of implementation of BKG activities. Level 3 mapping focuses on certain parts of the supply chain process, continued from the results of level 1 metrics and level 2 mapping by looking at the lowest performance score. Based on previous results it shows that process sources are things that need to be improved. POF sources at Level 1 are only 64.27%, the lowest score of reliability performance (fig. 2). In carrying out its business, BKG implemented a source-make-to-order system strategy, namely that the procurement process would be carried out if BKG had orders from customers, with a cash advance system. The disadvantage in making this order is when there is a sudden order made by the customer but the availability of raw materials that cannot be determined or the amount is insufficient. Pending advances also contributed to the delay in the procurement process. Based on interviews with the owners, they acknowledged a longer process in the SS2.1 process, namely the process of sending ordered raw materials with the unavailability of raw materials at the supplier level. Delays in this process result in delays in production time to delivery products to consumers.

4. CONCLUSION AND RECOMMENDATION

The results obtained from level 1 performance metrics are POF of 92.8% which are classified as very good, and OFCT of 17.78 days. From this analysis, it was found that BKG has problems in the source strategy of their supply chain. The BKG production process problem due to the unavailability of raw materials and other factors such as supplier location...
and weather. BKG needs to have better and detail their supply chain strategies to ensure lower production cost and speed of producing finished goods. An alternative that might overcome this problem is BKG must have a system of contracts with suppliers to ensure the availability of raw materials, to achieve optimal performance, so as to increase efficiency and also be able to provide maximum service to customers.

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REFERENCES


