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Analysis of Education Tourism Experience Level Through Tourism Activity Variation in Taman Pintar Yogyakarta

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Abstract
Education tourism is one of tourism people are very interested in Yogyakarta as student and culture city. Education tourism is routine agenda for educational institution in effort to support implementative learning process. Various educational tourism activities are art and cultural study, historical study, language study, conference study, pilgrimage activity and research. Successful education tourism activity is determined by learning experience felt by tourist. The research was intended to identify the effect of tourist demand and product availability on tourist experience through tourist activity variation offered by Taman Pintar Yogyakarta.

Result of data analysis indicated that tourist demand did not affect significantly tourism activity variation with correlation coefficient of -0.66. However, it is more influenced by product availability in Taman Pintar with correlation coefficient of 0.411. Then result of path analysis indicated that supply has dominant indirect effect on tourism experience level through tourism activity varieties with correlation coefficient $\beta_{XZ} < \beta_{XZ} \cdot \beta_{YZ} = 0.117 < 0.161$.

Keywords: educational tourism, demand, experience, tourism activity, path analysis

Background and Statement of The Problem
Education tourism is one of tourism people very interested in Yogyakarta, as student and culture city. Data collected from DIY Statistic in 2014 indicated that tourism amount increase 17.90% compare 2013 (3,346,180). Statistical data in 2013 indicated that tourism amount for the last five years grew significantly, almost twice as indicated in Figure 1.
Education tourism activity was determined by some factors such as tourist motivation and destination attractiveness. Tourist motivation to do touristic travelling is influenced by pushing factor of original local and attractiveness of destination area. The promoting factor is job prospect offered and more expensive educational cost in domestic (Lam et al., 2011). Pevzner and Nikolaeva (2013) state some factor supporting tourist do study abroad such as learning about other country, learning foreign language, opportunity to achieve international career. Ritchie (2003) describe education tourism motivation in some traveling motivation category; physical, cultural, social, spiritual, and phantasy. Educational tourism motivation promotes increase of international student in university.

Main goal of education tourism is to get learning experience in art, culture, history, technology and so on. This research was intended to identify the extent of education tourism experienced by tourist through tourist attraction offered by Taman Pintar Yogyakarta. Taman Pintar Yogyakarta functions as learning center of science and main educational destination in Yogyakarta. Existence of Taman Pintar is not only known in national level but also in international level. Taman Pintar presents science in creative condition. Taman Pintar is one stop destination for tourist.

Research questions
This study attempts to answer the following questions:
1. What is the extent of effect of tourism demand on tourism activity variation?
2. What is the extent of product availability on tourism activity variation?
3. What is the extent of direct effect of tourist demand on tourism experience level and indirect effect through tourism activity variation?
4. What the extent of direct effect of product availability on tourism experience level and indirect effect through tourism activity variation?

Research Hypothesis
1. Tourist demand have significant effect on tourism activity variation
2. Product availability has significant effect on tourist activity variation
3. Tourism demand have direct and indirect effect on tourism experience level through tourism activity variation
4. Product availability affect directly and indirectly on tourism experience level through tourism activity variation
Literature Review

Tourism is temporary movement activity of individuals to destination beyond their domicile and working place and does activity in the destination and preparing facility to keep their needs (Mathieson and Wall in Pitana and Gayatri, 2005). Study tourism has different characteristic with other tourism activity. Education tourism activity are various, from introducing school, custom, language, to seminar activity and research (Yuan, 2003 in Wang and Li, 2008). Main objective of education tourism is education and research, so selected destination is popular school or university and historical sites (Wang and Li, 2008). Most education tourism is student using their holiday for stroll and obtaining knowledge.

Education tourism activities consist of conference, research, national and international student exchange, school visit, language school and study tourism organized formally and non-formally with natural and artificial tourism destination (Ritchie, 2003). Tourist doing tourism travelling by visiting education tourism destination and do tourism activity related to education and learning is stated of doing education tourism activity.

Education tourism product is production give active learning experience, as main objective obtained in educative tourism. According to Cohen (2008), there are two aspects of education from educative tourism program that is experience and interactive including three elements of curriculum, text and teacher. Tourism product is mix of different goods and services offered as an experience for tourism (Gilbert, 1990 in Cooper and Hall, 2008). Tourism is experience based product, so it is necessary comprehension on consumption and production elements in understanding tourism phenomena. Tourism experience value was determined by consumer and producer as result of tourism product consumption (Cooper and Hall, 2008).

Education tourism product has three dimensions by adopting Kotler (in Swarbrooke, 2002) including main product, real product and additional product. First, main product is product offer educative experience and learning as main benefit and tourist want to buy, namely, tourism attraction. Second, real product is main product packaged in a tourism package and offered to meet tourism needs, including feature, trademark, quality and packaging. Third, additional product required in tourism activity including all additional tangible and intangible service.

Accommodation facility as one of educative tourism product has simple and cheap characteristic, but it is able to grow social and cultural coordination for tourist (Taylor, 2006). Homestay as substitution of hotel is accommodation mostly used by educative tourism, because its environment is very supporting in learning process, in language and culture aspect (Taylor, 2006).

Demand for educative tourism is too broad and various for being satisfied by a destination with tourism product. Demand in tourism industry consists of some different facilities and product having characteristic, shape, benefit and necessity. Facility and product is provided by different companies and is required by tourist in deferent time (Yoeti, 2008). Character of educative tourism demand is combination of various services to meet learning experience need in education tourism activity. Special demand in tourism activity was determined by some factors such as price,
attractiveness, accessibility, pre travelling service, information and image. Tourism
demand is very influenced by motivation of the tourism.

Education tourist is individual doing long travel from original city or country
and at least stay one night, where education and learning is secondary objective but it
is considered as important way to filling spare time (Ritchie, 2003). Ritchie divided
market segment of educative tourism into three groups. First, adult and older tourism
include tourist of over 50 years and have learning motivation. Second, elementary
through intermediate student from 5 to 18 years old. The third is university student of
18-30 years old with different population in age, social, culture, education and
economy aspects. Difference in educative tourism market segment may be seen from
result of research on education program conducted in Israel (Cohen, 2008) and China
(wong and Li, 2008). Ankomah and Larson (2002) divided educative tourism market
share into four categories; domestic, interregional, Europe, and North America. The
division is based on market potential in educative tourism through student exchange
program.

Research method

This is explanatory research intended to identify educative tourism experience
in Taman Pintar Yogyakarta, which is affected by tourism demand and product
availability through offered tourism activity variation. The research used path
analysis to explained direct and indirect effect of the four variables. Research location
is Taman Pintar Yogyakarta as learning centre for science and main destination of
educative tourism in Yogyakarta. Data collection was done by distributing
questionnaire to 150 respondents with accidental sampling technique. Result of
instrument test indicted the instrument is valid and reliable where statistical-\(r\) is above
critical \(r\) (0.159) and Cronbach alpha score over 0.6.

Results and discussions

Taman Pintar Yogyakarta is a science center located in the center of
Yogyakarta near the centers of cultural and economic activity. The location places
Taman Pintar as a Premium neighborhood in the Yogyakarta city. The Taman Pintar
existence known not only nationally but also internationally. Taman Pintar has the
responsibility to serve the community in developing children and young people
interests of science, through imagination, experimentation and games in development
of human resources quality. Taman Pintar Yogyakarta is a science center under
government management that was built and established in 2004

Taman Pintar is developed based on Ki Hajar Dewantara philosophy, ie;
derstanding, imitating, and developing. The philosophy is manifested in circulation
pattern , form of vehicle, material content, and instructional media as well as the
activities and programs at Taman Pintar. The “Understands” philosophy seen at
exhibition or display of props, knowledge and content developed in Taman Pintar,
ranging from the playground to the vehicle and zone inside the building. Taman
Pintar have developed 47 zone, there are; playground, building memorabilia, oval
building, box building, early childhood building, and planetarium. The “Imitating”
philosophy embodied in the form of educational program development and creativity
that can be followed by tourist. The creativity program consist of; batik workshop, painted pottery, painting T-shirts, and so forth. While, the "developing" philosophy aimed to enrich the understanding and knowledge of science. The application of this philosophy is embodied in the form of workshops and scientific creativity competition.

**Respondent characteristic**

Respondent characteristic obtained from survey data are female (64%), 12-24 years old (78%); based on their origin they were from outside DIY but still in Java island (86.7%). Based on educational level, 40.7 percent was senior high school and 33.3 percent was intermediate school. The data on respondent indicted that market segment of Taman Pintar Yogyakarta is dominated by senior highs school and junior high school students. That data is required by the management in making tourism package matching to its market segment.

**Research variable description**

Results of survey indicate that the highest tourist demand is to obtain art, culture and new language learning experience (80%). Demand for conference activity and pilgrimage is relatively small. Data on tourist need may be guidance for Taman Pintar management to design tourism product. From tourist perception on art, culture, historical tourism activities, 80 percent tourist stated that the activities are various. From educative tourism experience, language learning experience is less (44.7%). The need is recommendation for Taman Pintar management to make language laboratory design to meet tourist demand. Meanwhile, in art, cultural, history and new technology, it has reached 70 percent.

**Data test**

Data is distributed normally and can be seen in figure of normal P-P Plot of Regression Standardized Residual. Data was spread around diagonal line and follow diagonal line, so the regression model met normality assumption. In addition, normal distributed data may be seen in scatter plot indicating data scatter evenly not shaping certain pattern as seen in Figure 2.

![Normal P-P Plots and Scatterplot](source: Primary Data (2016))

**Figure 2.** Normal P-P Plots and Scatterplot
Hypothesis test

This research used path analysis, a technique of analyzing causal correlation occurring in multiple regression when is independent variable affect dependent variable in direct and indirect way (Rutherford, 1993). In this research, two multiple regressions were done divided into two sub structures: substructure I was used to test hypothesis 1 and 2, and sub structure II for testing hypothesis 3 and 4.

Sub structure I

Regression analysis in sub structure I is a regression analysis from variable tourist demand and product availability as independent variable on tourism activity variation as dependent variable. Equation of sub structure I is

\[ Y = \beta_{x_1}X_1 + \beta_{x_2}X_2 + \epsilon_1 \]

while result of sub structure regression is presented in Table 1.

<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>(Constant)</td>
<td>13.961</td>
<td>1.693</td>
<td>8.249</td>
<td>.000</td>
</tr>
<tr>
<td>Tourist Demand (X1)</td>
<td>-.045</td>
<td>.058</td>
<td>-.066</td>
<td>.437</td>
</tr>
<tr>
<td>Product Availability (X2)</td>
<td>.263</td>
<td>.054</td>
<td>.411</td>
<td>4.855</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Tourism Activities Variation (Y)
Source: Primary Data (2016)

Result of data processing with SPSS software indicate regression \[ Y=-0.66X1 +0.411X2+ \] E. result of data analysis reveal that tourist demand did not affect significantly on tourism activity variation with correlation coefficient of 0.066. In this matter, tourism activity variation is influenced by product availability with correlation coefficient of 0.411. Result of the survey indicated that tourist has very high demand on tourism activity that provide art, cultural and language experience. Need for language learning experience was not satisfied (below 50%). To meet the tourist demand, Taman Pintar management should increase language laboratory design and design various tourism activities that can increase capability of speaking in other language for tourist. Tourist demand is influenced by tourism motivation and affects expectation satisfaction and tourist desire. Effort to meet demand is one of ways to increase tourist satisfaction and to create re-visit to make sustainable tourism.

Substructure II

Regression analysis in sub structure II is regression analysis of variables product availability and tourism activity variation as independent variable over educative tourism experience level as dependent variable. Result of multiple linear regression analysis indicated that tourist demand did not contribute significantly to activity variation, so tourism demand variable did not entered into path analysis. Sub structure II equation is

\[ Z = \beta_{x_1}X_1 + \beta_{x_2}Y + \epsilon_1 \]

when results of path regression analysis is presented in Table 2.

Table 2. Path Regression Analysis
Result of data processing with SPSS software indicated that regression equation is $Z = 0.117X_2 + 0.393Y + E$. The sub structure II Model was used to analyze direct and indirect effect of product availability over tourism experience level through tourism activity variation offered in Taman Pintar Yogyakarta. Diagram model may be seen in figure 3.

![Diagram of Path Analysis Model](source: Primary Data (2016))

**Figure 3. Path Analysis Model**

Test of direct and indirect effect used comparison between score $\beta_{X2Z}$, and $\beta_{X3Y}$, $\beta_{YZ}$ namely $\beta_{X2Z} > \beta_{X3Y} \cdot \beta_{YZ}$ = direct dominant and $\beta_{X2Z} < \beta_{X3Y} \cdot \beta_{YZ}$ = indirect dominant. The test was to see the extent of direct and indirect effect of tourist product availability over education tourism experience through tourism activity variation offered by Taman Pintar Yogyakarta. Result of the test is as follow

- $\beta_{X2Z} = 0.117$
- $\beta_{X3Y} \cdot \beta_{YZ} = 0.411 \times 0.393 = 0.161$
- $\beta_{X2Z} < \beta_{X3Y} \cdot \beta_{YZ} = 0.117 < 0.161$; indirect dominant.

Result of direct and indirect effect indicated that product availability has direct effect on tourism experience level and indirect dominant effect through tourism activity variation.

**Conclusion**

The highest education tourism experience level in Taman Pintar Yogyakarta is in art, culture, history and new technology. Unmeet tourist demand is language...
learning experience. Tourist demand did not give positive contribution on tourism experience in direct and indirect manner through tourism activity variation offered by Taman Pintar. Tourism experience level is influenced by product availability through tourism attraction variations offered by Taman Pintar Yogyakarta.

Reference


Cooper, R.D dan Emory, C.W., 2006, Metode Penelitian Bisnis, Jilid 1, edisi kelima, diterjemahkan oleh Ellen Gunawan dan Imam Nurawan, Jakarta: Erlangga.


DIY Tourism Office., 2013, Data Statistik Tahun 2013.

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