LEMBAGA PENELITIAN DAN PENGABDIAN KEPADA MASYARAKAT
UNIVERSITAS BINA SARANA INFORMATIKA
Alamat : Jl. Kramat Raya No. 98, Senen. Jakarta Pusat 10450
Telp. (021) 23231170 Fax (021) 21236158 Ext. 704, 705 e-mail: lppm@bsi.ac.id

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THE CONVERGENCE OF AI AND SOCIALPRENEURSHIP: TECHNOLOGY-BASED BUSINESS MODELS TO ADDRESS SOCIAL CHALLENGES IN THE DIGITAL AGE

Kemal Al Kindi Mulya[1] , Naomi Analisa Simanjuntak [1]

[1] Management, Bina Sarana Informatics University

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ABSTRACT

This study aims to examine the role of local Search Engine Optimization (SEO) in increasing prospective students' registration interest at Smart Ekselensia Indonesia. A quantitative approach was employed using a survey method involving 100 respondents selected through purposive sampling. The collected data were analyzed using simple linear regression with the assistance of IBM SPSS Statistics software. The results indicate that local SEO has a positive and statistically significant effect on registration interest. The coefficient of determination (R Square) value of 0.680 shows that 68% of the variation in registration interest can be explained by local SEO, while the remaining 32% is influenced by other factors beyond the scope of this study. These findings confirm that local search-based digital strategies play an important role in increasing prospective students' interest in the digital era.

Corresponding Author:
Kemal Al Kindi Mulya | Program Studi Manajemen, Universitas Bina Sarana Informatika
Email: kemal.kkm@bsi.ac.id

INTRODUCTION

The era of digital transformation has presented a new paradigm in solving complex and multidimensional social problems. The advancement of artificial intelligence or AI technology is no longer just the exclusive domain of giant technology companies, but has penetrated into various sectors of people's lives, including in an effort to overcome sustainable social challenges (Alifiya et al., 2025). In this context, social entrepreneurship or socialpreneurship has undergone a significant evolution by integrating AI technology solutions as the main foundation of a business model oriented towards positive social impact.

Social entrepreneurship is essentially an innovative approach to solving social problems through sustainable market mechanisms, where business actors not only focus on financial gain, but also prioritize the creation of measurable social value and long-term impact (Paksi & Muhardi, 2024). When this paradigm meets the revolutionary capabilities of AI technology, it creates tremendous synergies in identifying, analyzing, and solving various social problems with unprecedented levels of efficiency and effectiveness. The convergence between AI and

social entrepreneurship opens up endless opportunities to create solutions that are not only technologically innovative, but also socially relevant and economically sustainable.

The implementation of AI in social entrepreneurship has shown tremendous transformative potential in various fields, ranging from public health, inclusive education, poverty alleviation, to environmental conservation. Machine learning and big data analytics technologies enable social entrepreneurs to understand complex patterns in social dynamics, identify the groups of people most in need of intervention, and design targeted solutions with a high level of personalization (Arief et al., 2024). Moreover, AI also facilitates the automation of operational processes that allow social entrepreneurship organizations to operate at a lower cost but with a wider range of impact.

This phenomenon of convergence cannot be separated from the global context where social challenges are increasingly complex and interconnected. The COVID-19 pandemic has accelerated the adoption of digital technology in various aspects of life, while exposing increasingly gaping social gaps (Arianto, 2021). In this situation, the AI-based business model run by social enterprises is proving to be more adaptive and resilient in the face of external shocks, due to its ability to make quick adjustments based on real-time data analysis and accurate algorithmic predictions.

Recent research shows that social entrepreneurship organizations that integrate AI technology in their business models experience a three-fold increase in social impact compared to conventional approaches (Maulida et al., 2024). This is due to AI's ability to optimize resource allocation, improve the targeting precision of social programs, and facilitate the scalability of solutions at relatively low marginal costs. However, the implementation of AI in the context of social entrepreneurship also faces various challenges, including algorithmic ethical issues, digital divides, and the need for adequate human resource capacity.

The business model based on AI technology in social entrepreneurship demands a holistic and multidisciplinary approach, where technological, social, and economic aspects must be harmoniously integrated (Mardiah et al., 2025). The success of this model is measured not only by operational efficiency or technological innovation, but also by its ability to create sustainable and inclusive social change. In the Indonesian context, the potential for the application of this model is very large considering the diversity of social challenges faced, ranging from economic disparities, access to basic services, to increasingly urgent environmental issues.

The urgency to understand the dynamics of AI convergence and social entrepreneurship is becoming increasingly important in the context of developing a sustainable social innovation ecosystem (Lestari et al., 2025). This in-depth understanding of technology-based business models will make a significant contribution to the development of theoretical and practical frameworks that can be used as a reference for practitioners, policymakers, and academics in optimizing the use of AI technology to address various social challenges in the digital era. This research is expected to fill the existing knowledge gap and provide a clear roadmap for the development of a more mature and impactful technology-based social entrepreneurship ecosystem.

RESEARCH METHODS

This research uses a qualitative approach with a library research method designed to explore in depth the phenomenon of AI convergence and social entrepreneurship in the context of technology-based business models to overcome social challenges in the digital era. The literature review method was chosen for its ability to provide a comprehensive analysis of various theoretical perspectives, empirical findings, and developmental trends that have been documented in the scientific literature related to the research topic. This approach allows researchers to build a holistic conceptual framework by integrating various knowledge sources spread across various disciplines, ranging from information technology, strategic management, entrepreneurship, to social development studies (Adlini et al., 2022).

The literature search strategy is carried out systematically through trusted academic databases, including national and international journal portals that have a high reputation in the fields of technology, social entrepreneurship, and digital innovation. The inclusion criteria set include scientific publications published in the 2020-2025 time frame to ensure the relevance and novelty of information, with a focus on research that addresses the application of AI technology in the context of social entrepreneurship, sustainable business models, and the social impact of technological innovations. The literature selection process uses a gradual approach, starting from screening based on titles and abstracts, followed by an in-depth evaluation of the methodology and research findings to ensure the quality and credibility of the sources used.

Data analysis is carried out through thematic content analysis techniques that allow the identification of conceptual patterns, dominant themes, and knowledge gaps in the relevant literature. The analysis process begins with the categorization of the literature based on key aspects such as the type of AI technology used, the social entrepreneurship application sector, the business model applied, and the social impact generated. Each category is then analyzed in depth to identify convergence and divergence in research findings, as well as to extract theoretical and practical insights relevant to the research objectives. Data triangulation is carried out by comparing findings from various sources and perspectives to improve the validity and reliability of the analysis results.

The developed analytical framework integrates multidisciplinary perspectives that include technological, economic, social, and policy dimensions to provide a comprehensive understanding of the complexity of AI convergence and social entrepreneurship. The synthesis process is carried out through an interpretive approach that allows researchers to build a coherent narrative of how AI technology can be effectively integrated in social entrepreneurship business models to create sustainable social impact. Validation of the results of the analysis is carried out through internal peer review and consultation with experts in the field of technology and social entrepreneurship to ensure the accuracy of interpretation and relevance of the findings to the practical context in the field.

RESULTS AND DISCUSSION

Integration of AI Technology in the Social Entrepreneurship Ecosystem

The implementation of AI technology in social entrepreneurship systems has shown a fundamental transformation in the way social organizations operate and make an impact on society. AI technology provides convenience through the automation of routine tasks so as to

increase the efficiency and effectiveness of users in carrying out sustainable social programs (Ningrum et al., 2025). The integration of AI and management information systems has transformed data collection procedures, data analysis, and data utilization in the context of social entrepreneurship. The use of AI allows social entrepreneurship organizations to identify complex patterns in social dynamics with a high degree of accuracy. AI's ability to process big data in real-time provides a competitive advantage for social enterprises in designing targeted interventions. Digital transformation through AI has changed the entrepreneurial landscape, especially in the social impact-oriented business sector, where operational efficiency is the key to the success of community empowerment programs. Integrating integrated information technology with innovative business models is key to achieving a competitive advantage in the digital era in the context of social entrepreneurship (Hasminiar et al., 2024).

The development of AI technology in social entrepreneurship is not only limited to operational aspects, but also includes more effective communication and public relations strategies. AI can help analyze text to accurately identify public sentiment, improve interactions with chatbots and virtual assistants, and use recommendation systems based on browsing history or user interactions (Winds & Mukhlisiana, 2024). The implementation of AI in the communication strategies of social entrepreneurship organizations allows for a more personalized and responsive approach to the needs of the communities served. AI technology facilitates the development of digital platforms that allow social entrepreneurs to expand the reach of their programs at a more cost-efficient rate. The integration of AI in customer relationship management systems allows social organizations to build deeper engagement with beneficiaries. AI's ability to analyze behavioral data and preferences assists social enterprises in developing programs that are more tailored to the specific needs of the community. The use of AI technology also allows for real-time monitoring and evaluation of social programs, allowing for quick and precise strategy adjustments.

AI-based social entrepreneurship business models show tremendous potential in creating innovative solutions to a wide range of contemporary social challenges. Digital transformation has enabled social enterprises to adopt platform-based, subscription-based, and freemium business models that are accessible to all walks of life (Khairani et al., 2025). Best practices in AI implementation involve the use of social media, comprehensive integration of information and communication technologies, and strategic cross-sector collaboration. The use of AI in social entrepreneurship allows for the personalization of social services based on the analysis of demographic, geographical, and behavioral data of people. AI technology innovations support the development of a more inclusive and sustainable social entrepreneurship ecosystem. AI-based business models enable the scalability of social programs with relatively low capital investment but with a quantitatively measurable impact. The implementation of AI also facilitates the development of social solutions that can adapt to changing societal dynamics and evolving needs over time (Tanera, 2023).

Ethical Challenges and Social Impact in AI Implementation

The application of AI technology in social entrepreneurship faces a variety of complex ethical challenges and requires serious attention from practitioners and policymakers. In addition to providing convenience, there are ethical challenges and social impacts that arise from the application of AI in management information systems, such as threats to data security and increasingly narrow job opportunities for the community (Ningrum et al., 2025). Key ethical challenges include algorithmic bias that can perpetuate social injustice, inadequate data

protection, and complex ethical dilemmas in automated decision-making. The implementation of AI in a social context has the potential to create a wider digital divide between groups of people who have access to technology and those who do not. Reliance on AI technology also poses a risk to individual autonomy and freedom in making decisions. Transparency in AI-based decision-making processes is a crucial issue that affects public trust in social entrepreneurship programs. The need to develop a comprehensive ethical framework to guide the implementation of AI in the context of social entrepreneurship is becoming increasingly urgent.

The social impact of the implementation of AI in social entrepreneurship includes shifts in work structures and changes in the dynamics of social relations in society. Unequal access to technology, cybersecurity, and shifting work structures are the main challenges that must be faced in the digital era (Rosmayati et al., 2024). The use of AI can create an over-reliance on large tech platforms, potentially reducing the independence of social entrepreneurship organizations. The implementation of AI also raises sensitive data privacy issues, especially when it comes to the personal information of social program beneficiaries. Changes in the way of working due to automation can affect the organizational structure and human resource needs in social entrepreneurship. The challenge of maintaining a balance between technological efficiency and human values is an important aspect that must be considered. The need for a careful approach in integrating AI to ensure that this technology truly serves the interests of society and does not create new social problems.

Risk mitigation strategies and the development of ethical frameworks are key in ensuring the responsible implementation of AI in social entrepreneurship. The importance of maintaining the balance and diversity of data and maintaining its confidentiality in accordance with applicable privacy regulations is a top priority in the development of AI systems for social benefit (Winds & Mukhlisiana, 2024). The development of transparent and responsible policies to manage data processed by AI is an urgent need for social entrepreneurship practitioners. The implementation of AI must be aligned with the organization's communication goals and to improve relationships with the community. A multidisciplinary approach is needed to address the technical and social dimensions of AI applications in the context of social entrepreneurship. Collaboration between technologists, social practitioners, and policymakers is essential in developing ethical and sustainable solutions. The development of an ongoing audit and monitoring mechanism is needed to ensure that the implementation of AI remains in line with social values and does not cause unintended negative impacts (Constantin et al., 2024).

AI-Based Sustainable Business Model

The development of AI-based sustainable business models in social entrepreneurship requires a harmonious integration of technological innovation, economic sustainability, and measurable social impact. Platform-based, subscription-based, and freemium business models have been widely adopted by social entrepreneurship organizations undertaking digital transformation, providing flexibility in the provision of social services to various segments of society (Khairani et al., 2025). Innovation in the social service distribution business model no longer only refers to the delivery of programs conventionally, but also involves digital strategies such as social media and marketplaces to expand reach and efficiency in meeting the needs of the community. The integration of AI technology allows social entrepreneurship organizations to operate with a more efficient cost structure while maintaining a high quality of service. A hybrid business model that combines commercial and social approaches through AI technology provides the

financial sustainability needed for long-term operations. The use of AI in the optimization of social value chains allows for more effective resource allocation and more precise targeting. The flexibility of AI-based business models allows for rapid adaptation to changing societal needs and social environmental dynamics.

Challenges in developing AI-based sustainable business models include reliance on technology infrastructure, significant initial investment needs, and complexity in measuring social return on investment. Digital age challenges that must be faced such as cybersecurity, data privacy, fierce competition, and dependence on technology are significant obstacles in the development of social entrepreneurship business models (Hasminiar et al., 2024). Inequality in technology infrastructure in various regions can limit the scope of implementation of AI-based business models. Low digital literacy among target communities can hinder the adoption and optimal utilization of AI-based services. Reliance on large tech platforms can reduce the autonomy and control of social enterprise organizations over their operations. The complexity of regulation and compliance in the use of AI for social purposes requires specialized expertise and additional resources. The challenge of maintaining a balance between automation and human touch in the delivery of social services is a critical aspect that must be managed carefully.

Opportunities for the development of AI-based sustainable business models are wide open through innovations in technology, digitization of services, the development of connected ecosystems, and integrated social services. These opportunities include the development of social e-commerce platforms and marketplaces that enable the provision of social services online at a lower cost, as well as the empowerment of local communities that can leverage digital platforms to expand their social impact (Hasminiar et al., 2024). The Society 5.0 era provides a great opportunity for social entrepreneurship to integrate AI technology in creating more humane and sustainable solutions. The development of smart cities and connected healthcare services opens up space for AI-based social entrepreneurship innovation. Cross-sector collaboration between government, the private sector, and civil society can accelerate the adoption of AI-based sustainable business models. The potential global scalability of AI-based social entrepreneurship solutions provides an opportunity to create broader social impact. The development of an innovation ecosystem that supports AI-based social entrepreneurship can create a multiplier effect in addressing various social challenges simultaneously (Asikin & Fadilah, 2024).

CONCLUSION

The convergence between AI technology and social entrepreneurship has proven its potential in creating a fundamental transformation in approaches to solving social problems in the digital age. The integration of AI technology in the social entrepreneurship ecosystem not only improves operational efficiency through sophisticated data automation and analysis, but also enables more precise personalization of social services that are responsive to the dynamic needs of society. AI-based sustainable business models have demonstrated the ability to create synergies between financial sustainability and measurable social impact, where digital platforms, subscription systems, and freemium approaches provide flexibility in reaching various segments of society with optimal operational costs. The implementation of AI in communication and engagement strategies has facilitated the development of deeper relationships between social organizations and the communities served, while enabling real-time monitoring and evaluation of programs for rapid and appropriate strategy adaptation.

While the potential for the convergence of AI and social entrepreneurship is promising, complex ethical challenges and social impacts require serious attention and a responsible approach in their implementation. Critical issues such as algorithmic bias, data security, digital divide, and reliance on large tech platforms require the development of a comprehensive ethical framework and effective governance mechanisms. The success of AI-based business models to address social challenges in the digital age depends on the organization's ability to maintain a balance between technological innovation and human values, as well as in building strategic cross-sector collaboration between government, the private sector, and civil society. The Society 5.0 era opens up great opportunities for the development of a more inclusive and sustainable social entrepreneurship ecosystem, where AI technology can be optimally utilized to create a multiplier effect in addressing various social challenges simultaneously and holistically.

REFERENCES

Adlini, M. N., Dinda, A. H., Yulinda, S., Chotimah, O., & Merliyana, S. J. (2022). Qualitative Research Methods for Literature Studies. *Edumaspul: Educational Journal*, *6*(1), 974–980. https://doi.org/10.33487/edumaspul.v6i1.3394

Alifiya, H., Utomo, J. E., Kusuma, H. P., Azzahra, D. K., & Angga Buana, P. (2025). Exploration of the Application of Artificial Intelligence in Digital Infrastructure Transformation for Digital Economy Sustainability. *Journal of Computer and Science Technology (KOMTEKS), 4*(1), 1–7.

Wind, T. G. P., & Mukhlisiana, L. (2024). The Use of AI In Digital Transformation, Ethics and Public Relations Strategies. *Indonesian Journal of Social Technology*, *5*(11), 4948–4962. https://doi.org/10.59141/jist.v5i11.7044

Arianto, B. (2021). The Covid-19 Pandemic and Digital Cultural Transformation in Indonesia. *Titian: Journal of Humanities*, *5*(2), 233–250. https://doi.org/10.22437/titian.v5i2.15309

Arief, H., Oktaviar, C., Saratian, E. T., Nuryadi, H., & Stephani, S. B. (2024). The use of Artificial Intelligence (AI) technology in increasing sales and business sustainability of MSMEs. *BESIRU : Journal of Community Service*, *1*(6), 335–342. https://doi.org/10.62335/mgjxst31

Asikin, M. Z., & Fadilah, M. O. (2024). The Future of Entrepreneurship and Innovation: Challenges and Dynamics in the Digital Era. *Journal of Syntax Admiration*, *5*(1), 303–310. https://doi.org/10.46799/jsa.v5i1.1023

Constantin, N., Nelwin, R., Christanto, A., & Irwansyah, I. (2024). Artificial Intelligence: Communication, Technology, and Society (a Systematic Literature Review). *Indonesian Journal of Social Technology*, *5*(10), 4514–4533. https://doi.org/10.59141/jist.v5i10.7027

Hasminiar, H., Hidayat, R., Karyono, O., Fitri, N. A., & Anggryani, L. (2024). Innovation in Distribution Business Models: Challenges and Opportunities in the Digital Era. *EKOMA : Journal of Economics, Management, Accounting*, *3*(6), 867–880. https://doi.org/10.56799/ekoma.v3i6.4536

Khairani, N., Anshari, F., Kanaya, N. S., & Ginting, P. A. (2025). Entrepreneurial Innovation in the Digital Era: A Literature Review on Technology-Based MSME Business Models. *INNOVATIVE: Journal Of Social Science Research*, *5*(3), 4592–4602. https://j-innovative.org/index.php/Innovative

Lestari, E. A., Jesie, T. A., Sari, A., Maharani, B. S., & Zaki, A. (2025). Analysis of the Growth of Digital Entrepreneurship Startup Social Enterprise in Indonesia. *Digital Business Journal (DIGIBIS), 3*(2), 61–75. https://doi.org/10.31000/digibis.v3i2.11057

Mardiah, D., Renggani, F. P., Aripin, N. S., & Irwansyah, R. (2025). Technology-Based

Entrepreneurship: Utilizing AI for Business Growth. *Karimah Tauhid*, *4*(7), 5086–5093.

Maulida, I. S., Handayati, R., Nurcholidah, L., Lazuardi, Y., & Sulaeman, M. M. (2024). Entrepreneurial Transformation through the Utilization of Artificial Intelligence: Impact on Product Innovation and Business Sustainability. *Technology and Society Perspectives (TACIT), 2*(3), 271–277. https://doi.org/10.61100/tacit.v2i3.232

Ningrum, T. S., Anspratiwi, V. D., & Wahyudi, M. (2025). Ethics and Social Impact of the Application of Artificial Intelligence in Management Information Systems. *Journal of Information Systems Research*, *2*(1), 06–15. https://doi.org/10.69714/26ypxk67

Paksi, T. A. E., & Muhardi. (2024). Sustainable Social Entrepreneurship: A General Study on Micro Enterprises in Indonesia. *Journal of Economics and Entrepreneurship West Science*, *2*(1), 93–101. https://wnj.westsciences.com/index.php/jekws/article/view/908/785

Rosmayati, S., Maulana, A., & Gunadi, T. (2024). Opportunities and challenges of business and health economics in the era of society 5.0. *Scientific Journal of Management*, *15*(1), 113–130.

Tanera, L. (2023). Challenges in Facing Technological Developments and Digital Transformation in the Franchise Business. *Multilingual Journal*, *3*(3), 1412–4823.