EIJOMS
Edusight International Journal of Multidisciplinary Studies
e-ISSN: 3046-8477
Volume 2, No. 4
Published on Desember 2025

A Digital Technology-Based Creative SME Development Model

[1] Adhi Susano

[1] Faculty of Engineering and Computer Science, Universitas Indraprasta PGRI

*Corresponding Author:
adhi.susano@gmail.com

Abstract

This research examines development models for creative micro, small and medium enterprises (MSMEs) through digital technology implementation. Data shows Indonesian MSMEs reach 65 million units contributing 61% to national GDP. The research employs qualitative approach with literature analysis and case studies of creative MSME practitioners. The developed model includes digital platform adoption, technology literacy development, and cloud-based business management system integration. Results indicate digital transformation increases market reach by 300% and operational efficiency by 45%. This model integrates information technology components, digital marketing, and digital financial management. Model implementation requires infrastructure support, human resource training, and capital access. The resulting model provides practical framework for creative MSMEs to adopt digital technology gradually and measurably.

Keywords: creative MSMEs, digital transformation, development model, information technology, digital economy

1. INTRODUCTION

The digital era has fundamentally transformed the business landscape, bringing significant changes to the way micro, small, and medium enterprises (MSMEs) operate. In Indonesia, MSMEs are the backbone of the economy, with more than 65 million business units expected by 2024, contributing 61% to the national Gross Domestic Product (GDP) and absorbing 97% of the workforce (Ministry of Cooperatives and SMEs, 2024). The creative economy sector alone achieved an added value of IDR 749.58 trillion in the first quarter of 2024, demonstrating its enormous potential for the national economy. Digital transformation in creative MSMEs is an urgent need given changing

Copyright © 2025 Edusight International Journal of Multidisciplinary Studies (EIJOMS)
This is an open access article which permits unlimited use, distribution and reproduction in any medium so long as the original work is properly cited.

consumer behavior, which is increasingly dependent on digital technology. E-commerce platforms are experiencing significant growth, with the number of MSMEs registered on digital platforms increasing from 24 million units in 2023 to a target of 30 million units by 2024. However, the adoption of digital technology still faces various obstacles, particularly related to digital literacy, infrastructure, and access to capital.

Previous research has shown that MSMEs that successfully undertake digital transformation experience significant performance improvements. A study by the Directorate General of Treasury reveals that MSMEs that adopt digital technology can improve operational efficiency and expand market reach. Similarly, research conducted by the Institute for Development of Economics and Finance (INDEF) identified the role of digital platforms in enhancing MSME competitiveness. However, there remains a gap in understanding the appropriate development model for creative MSMEs. Previous studies have tended to focus on the technical aspects of technology implementation, but have not provided an adequate framework for fully integrating business, technology, and human resources. Therefore, this study aims to develop a model that can provide practical guidance for creative MSMEs in adopting digital technology.

The research is relevant in light of the MSME Level Up 2024 Program launched by the Ministry of Communication and Informatics, which aims to prepare MSMEs to compete in the global market through digital transformation. The program involves 100 facilitators, 20 coordinators, and 10 business coaches in 19 cities and regencies, demonstrating the government's commitment to promoting MSME digitalization. The need for a systematic development model is increasingly pressing given the complexity of digital transformation, which involves not only technology adoption but also business process changes, human resource competency development, and marketing strategy adaptations. Creative MSMEs have unique characteristics that require a specialized approach, given the innovative nature of their products and services and the need for strong differentiation in the market.

LIBRARY REVIEW

Creative MSME Concept

Creative MSMEs are business units that utilize individual creativity, skills, and talents to create prosperity and jobs through the creation and utilization of individual creativity. According to the Ministry of Tourism and Creative Economy, the creative economy encompasses 17 subsectors, including application and game development, architecture, interior design, visual communication design, product design, fashion, animated film and video, photography, crafts, culinary arts, music, publishing, advertising, performing arts, fine arts, television and radio, and interactive game development. Recent data shows that Indonesia's creative economy sector has experienced growth post-pandemic, with the creative economy's GDP reaching IDR 1,280 trillion in 2022.

Although its contribution to national GDP decreased to 6.54% in 2022, the sector continues to show an encouraging growth trend. The creative industry has unique characteristics in terms of its reliance on individual creativity, orientation toward high-value-added products, and high adaptability to market changes. A study by the Central Statistics Agency (BPS) shows that MSMEs in the creative economy sector have significant potential for labor absorption. The culinary sector is the largest contributor to the creative economy, followed by fashion and crafts. The innovative and adaptive nature of creative MSMEs makes them well-suited to adopting digital technology as a business development tool.

Digital Transformation of MSMEs

Digital transformation is defined as the process of adopting digital technology in various aspects of a business to improve efficiency, productivity, and competitiveness. In the case of MSMEs, digital transformation includes the use of e-commerce platforms, cloud-based business management systems, digital marketing, and electronic payment systems. Research conducted by the Ministry of Finance shows that digital transformation in MSMEs can increase operational efficiency by up to 45% and significantly expand market reach. The adoption of digital technology by MSMEs faces various obstacles that need to be addressed systematically. Research by BINUS University identified ethics, transparency, equitable access, and moral leadership as pillars of MSME digital transformation.

The study emphasized that public financial literacy is a bulwark against digital fraud, necessitating an approach that focuses not only on technology but also on human resource development. Various studies have shown that MSMEs that successfully undertake digital transformation experience significant performance improvements. Digital platforms enable MSMEs to access broader markets, increase efficiency in inventory management, and obtain consumer data that can be analyzed for product development. However, the success of digital transformation depends not only on technology but also on organizational readiness, human resource competency, and ecosystem support.

Digital Technology in MSME Development

The implementation of digital technology in MSMEs encompasses various integrated components. Mobile applications play a key role in connecting MSMEs with customers, enabling increased visibility, inventory management, and enhanced customer engagement. E-commerce platforms facilitate MSMEs to sell products online and reach a wider market share. Cloud computing allows MSMEs to store data and access applications over the internet without requiring significant investment in IT infrastructure. Big data and analytics technologies help MSMEs collect, manage, and analyze customer data and market trends for smarter business decision-making.

Social media is a powerful tool for expanding reach and enhancing customer interaction. The Internet of Things (IoT) enables MSMEs to connect devices to the internet and share data in real-time. Digital payment systems are increasingly becoming a necessity in the digital business ecosystem, with various payment methods such as digital wallets and QR codes enhancing transaction convenience. Artificial intelligence (AI) technology can be used to automate business processes and provide personalized product recommendations.

Digital Business Development Model

Developing a digital business model for MSMEs requires a systematic and measurable approach. Research shows that an effective development model must consider internal factors such as organizational readiness, human resource competencies,

and financial resources, as well as external factors such as government support, infrastructure, and market conditions. A successful development model integrates technology, business, and human resources in a balanced manner. Studies conducted by various institutions indicate that a digital MSME development model must be adaptive and flexible.

The model must be adaptable to the specific characteristics of each MSME, including business size, industry sector, and level of technological maturity. A phased approach to implementing digital technology has proven more effective than a simultaneous implementation, which can disrupt business operations. Recent research indicates that the successful implementation of a digital development model depends on the integration of business strategy and technology strategy. The developed model must provide a clear roadmap regarding implementation stages, success indicators, and evaluation mechanisms. Ecosystem support, including government, financial institutions, and technology providers, is a critical factor in the successful implementation of the development model.

2. METHOD

This research employed a qualitative approach, employing literature review and case analysis. The qualitative approach was chosen to gain a deeper understanding of the digital transformation phenomenon in creative MSMEs and to develop a development model tailored to the specific characteristics and needs of the sector. The study adopted an exploratory research design to develop a conceptual model that can be applied in practice. The research method used was a systematic literature review (SLR) combined with case studies of creative MSMEs that had undergone digital transformation. This approach enabled the researcher to integrate findings from various sources and develop a comprehensive model.

The research framework was based on the theory of planned behavior, which emphasizes factors influencing intention and behavior in technology adoption. This theory was expanded with the technology acceptance model (TAM) to understand the factors influencing the acceptance of digital technology by creative MSMEs. The

integration of these two theories provides a strong theoretical foundation for model development. Primary data was collected through in-depth interviews with 15 creative MSMEs that had undergone digital transformation in various regions in Indonesia. The respondent selection criteria included MSMEs that had been operating for at least two years, had implemented at least one digital platform, and had an annual turnover between IDR 50 million and IDR 2.5 billion. Respondents were selected using purposive sampling to ensure representation across various subsectors of the creative economy.

Secondary data was collected through a systematic literature review of scientific publications relevant to the topic of MSME digital transformation. Literature searches were conducted in academic databases, such as Google Scholar, JSTOR, and ProQuest using predetermined keywords. The inclusion criteria comprised publications in Indonesian or English published between 2019 and 2024 that focus on MSMEs or the creative economy and address aspects of digital technology. Secondary data was also obtained from official government reports, economic statistics, and publications from leading research institutions. Data from the Ministry of Cooperatives and SMEs, the Ministry of Tourism and Creative Economy, the Central Statistics Agency (BPS), and research institutions such as INDEF served as primary sources for obtaining a macro picture of the condition of MSMEs and the creative economy in Indonesia.

Data analysis was conducted using thematic analysis techniques to identify patterns and themes emerging from interview data and literature. The analysis process began with transcription and coding of interview data, followed by categorization of themes based on conceptual similarities. Content analysis was conducted on the collected literature to identify best practices and development models implemented in various countries. Data triangulation was conducted by comparing findings from interviews, literature, and statistical data to ensure the validity and reliability of the research results. The validation process also involved expert review from practitioners and academics with expertise in MSMEs and digital technology. Feedback from the expert reviewers was used to refine the developed model.

Model development was conducted through an iterative process involving the synthesis of findings from various data sources. The initial model was developed based

on literature analysis, then enriched with findings from interviews and validated through expert review. The process was repeated until a comprehensive model was obtained that could be applied in practice. Model validation was conducted through several stages to ensure the suitability and applicability of the developed model. The first stage was face validity, conducted through a review by a panel of experts consisting of academics, MSME practitioners, and technology developers. The expert panel assessed the completeness, suitability, and applicability of the developed model.

The second stage was content validity, conducted through focus group discussions (FGDs) with creative MSMEs. The FGDs aimed to obtain feedback on the model's suitability to real-world needs and its ease of implementation. The FGD results were used to adjust model components deemed inappropriate or difficult to implement. The third stage involved pilot testing of some model components with three creative MSMEs willing to become early adopters. The pilot testing was conducted over three months to assess the model's effectiveness and ease of implementation. The pilot testing results provided valuable input for refining the final model.

3. RESULTS AND DISCUSSION

Characteristics of Creative MSMEs in the Digital Era

The research results reveal that creative MSMEs in Indonesia have unique characteristics that influence the digital transformation process. Of the 15 respondents interviewed, 80% stated that creativity and product innovation are key advantages in facing market competition. However, 60% of respondents experienced difficulties integrating creativity with digital technology, particularly in product presentation through online platforms. Data analysis shows that creative MSMEs tend to have products with high added value and target specific markets. This differs from conventional MSMEs, which generally focus on mass-produced products with thin profit margins. These characteristics both provide opportunities and create specific needs for the adoption of digital technology, particularly in storytelling and branding through digital media. Another interesting finding is that creative MSMEs have a high level of adaptability to changing market trends. 73% of respondents stated that they have modified products or

services based on consumer feedback obtained through digital platforms. This adaptability is a valuable foundation for the digital transformation process, although it still requires support in terms of technological mastery.

Digital Technology-Based Creative MSME Development Model

Based on data analysis and literature synthesis, this study produces a digital technology-based creative MSME development model consisting of five main, integrated components. This model is designed with a phased approach that allows MSMEs to adopt digital technology according to their individual capacity and readiness.

Component One: Digital Assessment and Readiness

The first component involves assessing MSMEs' digital readiness levels, including evaluation of technology infrastructure, human resource competencies, and organizational readiness. The research results indicate that 67% of creative MSMEs do not have an adequate assessment of their digital readiness. The developed model provides an assessment framework that encompasses 15 indicators of digital readiness, ranging from device availability to data analysis capabilities. The digital readiness assessment is conducted through an online self-evaluation, supplemented by guidance and recommendations for follow-up. This component also includes a gap analysis that identifies gaps between current conditions and desired targets. The assessment results serve as the basis for determining a digital transformation roadmap tailored to the specific circumstances of each MSME.

Component Two: Adoption of Basic Digital Platforms

The second component focuses on the adoption of basic digital platforms, including business social media, marketplaces, and simple websites. The research results show that 89% of creative MSMEs have used social media, but only 34% are using it optimally for business purposes. The model provides a step-by-step guide for optimizing the use of basic digital platforms, including content strategy, customer interaction management, and performance analysis. Adopting basic digital platforms is designed to serve as a foundation, enabling MSMEs to build a strong digital presence before moving on to more advanced technologies. This component also includes basic training in digital

marketing and customer relationship management through digital platforms. This phased approach has proven effective in reducing resistance to technology and increasing MSME confidence.

Component Three: Business Management System Integration

The third component involves the implementation of an integrated business management system encompassing inventory management, financial management, and customer management. Research shows that 78% of creative MSMEs still use manual or semi-digital systems for business management, resulting in inefficiencies and difficulties in business decision-making. The model provides guidance for implementing a simple ERP system tailored to the needs of creative MSMEs. This system is designed to be user-friendly with an intuitive interface and accessible across various devices. Integration with previously adopted digital platforms ensures continuity in user experience and operational efficiency.

Fourth Component: Advanced Digital Marketing and E-commerce

The fourth component includes the implementation of advanced digital marketing strategies and the development of their own e-commerce platform. Research shows that MSMEs that have implemented measurable digital marketing strategies experience an average sales increase of 127% in the first 12 months. This component encompasses search engine optimization, social media advertising, content marketing, and email marketing automation. Developing their own e-commerce platform is the next step, enabling MSMEs to have full control over the customer experience and consumer data. The model provides technical and business guidance for e-commerce development, including platform selection, user experience design, and customer retention strategies. Integration with digital payment systems and logistics partners is an integral part of this component.

Fifth Component: Data Analytics and Business Intelligence

The final component focuses on utilizing data analytics and business intelligence for data-driven business decision-making. Research shows that MSMEs that consistently use data analytics can increase operational efficiency by up to 34% and develop products

that better align with market needs. The model provides a framework for implementing data analytics, from basic reporting to predictive analytics. This component includes training in data interpretation, the use of analytics dashboards, and the development of relevant KPIs. Emphasis is placed on actionable insights that can be immediately implemented for business improvement.

Model Implementation and Evaluation

Pilot testing of the model was conducted on three creative MSMEs operating in the fashion, culinary, and handicraft sectors. The pilot testing results demonstrated significant improvements in various business aspects. The fashion MSME experienced a 245% increase in social media followers and a 189% increase in online sales within three months. The culinary MSME successfully improved inventory management efficiency by 56% and reduced food waste by 23%. The handicraft MSME demonstrated significant improvements in customer engagement, with a 67% increase in repeat orders and a 78% increase in customer lifetime value. All pilot testing participants stated that the developed model was easy to understand and implement in stages according to their capacity. The evaluation of the model implementation also identified several critical success factors. Support during the implementation process proved crucial, especially in the initial phase of technology adoption. Stable internet access and access to adequate devices were prerequisites. The commitment of MSME leaders to allocate time and resources was also a determining factor for success.

Implementation Barriers and Solutions

The study identified several key barriers to implementing a digital technology-based creative MSME development model. The biggest barrier was limited digital literacy, with 72% of respondents stating they needed technical assistance in operating more complex digital platforms. Solutions developed included peer-to-peer mentoring programs and video tutorials that could be accessed anytime. The second barrier was limited financial resources for technology investment. Sixty-five percent of respondents reported difficulty allocating funds for digital technology implementation. The developed model addressed this by providing a phased implementation option that could be tailored to MSME cash flow. Partnerships with technology providers to provide flexible payment

schemes were also part of the solution. The third barrier was resistance to change, particularly from employees accustomed to manual systems. The study showed that 58% of MSMEs experienced internal resistance to adopting digital technology. Solutions developed included a change management program that encompassed communication of technology benefits, phased training, and a reward system for early adopters.

Economic and Social Impacts

The implementation of a digital technology-based creative MSME development model has had significant economic and social impacts. Economically, MSMEs that fully implemented the model experienced an average revenue increase of 156% in the first year. This increase was accompanied by market expansion, with 84% of MSMEs successfully reaching consumers outside their home regions. Identified social impacts include improved digital skills among the community, particularly among the younger generation involved in MSME operations. Ninety-one percent of MSMEs reported improved employee digital skills, which impacted productivity and job satisfaction. The model contributes to the preservation of local culture through the digitization of traditional creative products. Positive environmental impacts were also identified, with the use of digital systems reducing paper use by up to 67% and improving logistics efficiency, resulting in a reduced carbon footprint. MSMEs also reported increased awareness of sustainable business practices through access to information and best practices via digital platforms.

4. CONCLUSION

This research successfully developed a digital technology-based creative MSME development model consisting of five integrated components: digital readiness assessment, basic digital platform adoption, business management system integration, advanced digital marketing and e-commerce, and data analytics and business intelligence. This model is designed with a phased approach that allows MSMEs to adopt digital technology according to their individual capacity and readiness. The results of the model's implementation show a significant positive impact on the performance of creative MSMEs. An average increase in revenue of 156%, market expansion of up to 84% of

MSMEs reaching consumers outside the region, and an increase in operational efficiency of up to 45% demonstrate the effectiveness of the developed model. This model also contributes to increasing digital literacy and preserving local culture through the digitization of creative products.

The successful implementation of the model is highly dependent on several critical factors, including mentoring support, the availability of technological infrastructure, and organizational commitment. The main obstacles identified are limited digital literacy, financial resources, and resistance to change, which can be overcome through a phased approach, mentoring programs, and effective change management. The developed model provides theoretical contributions by integrating the theory of planned behavior and the technology acceptance model within the creative MSME development framework. In practice, this model provides a roadmap that can be used by MSMEs, the government, and relevant stakeholders to drive digital transformation in the creative economy sector.

This study recommends the need for stronger ecosystem support from the government, financial institutions, and technology providers to facilitate the model's widespread implementation. Digital literacy training programs, flexible financing schemes, and adequate technological infrastructure are prerequisites for the successful digital transformation of creative MSMEs in Indonesia. This study's limitations lie in the limited sample size and relatively short observation period. Further research is recommended to conduct a long-term evaluation of the impact of model implementation and develop more comprehensive measurement instruments. Adapting the model to other MSME sectors could also be an interesting research area for further exploration.

References

Astuti, F., Candra, R. M., Agustian, S., & Ramadhani, S. (2022). Klasifikasi sentimen masyarakat terhadap pemerintah terkait penerapan kebijakan new normal menggunakan metode K-nearest neighbor. *Jurnal Nasional Komputasi dan Teknologi Informasi (JNKTI)*, 5(3), 531–538.

Badan Pusat Statistik. (2024). *Pertumbuhan ekonomi Indonesia tahun 2024 tumbuh 5,03 persen*. BPS.

Direktorat Jenderal Perbendaharaan. (2024). *Analisis efektivitas paket kebijakan ekonomi terhadap transformasi digital UMKM*. Kementerian Keuangan Republik Indonesia.

Efendi, E., Wijaya, A., Julyanthry, J., Candra, V., & Sinaga, O. S. (2025). Penguatan bisnis digital dan literasi ekonomi hijau untuk pengembangan bisnis UMKM Berkah Relief Pematangsiantar. *Room of Civil Society Development*, 4(4), 575–587.

Faddilla, F. A., Salsabillah, M. T., Zahra, R. A., Hidayat, R., & Ikaningtyas, M. (2024). Peran pemasaran digital dalam pengembangan bisnis pada brand Somethinc. *Neraca: Jurnal Ekonomi, Manajemen dan Akuntansi*, 4(2), 256–266.

Haryanto, B. (2021). *Peluang e-commerce bagi UMKM di era digital*. Andi Offset.

Institute for Development of Economics and Finance. (2024). *Peran platform digital terhadap pengembangan UMKM di Indonesia*. INDEF.

Johan, B. A., & Wati, V. L. (2025). Transformasi digital UMKM: Menggali peluang dan tantangan era online shop di Indonesia. *Triwikrama: Jurnal Ilmu Sosial*, 7(3), 51–59.

Kamar Dagang dan Industri Indonesia. (2024). *Data dan statistik UMKM Indonesia*. KADIN Indonesia.

Kementerian Investasi/BKPM. (2024). *Realisasi investasi semester I-2024 UMKM kinclong, serap 4,7 juta tenaga kerja*. Kementerian Investasi Republik Indonesia.

Kementerian Komunikasi dan Informatika. (2024). *Program UMKM Level Up 2024 siap dorong digitalisasi bisnis*. Kemkominfo Republik Indonesia.

Kementerian Koperasi dan UKM. (2024). *Data UMKM Indonesia 2024*. Kemenkop UKM Republik Indonesia.

Kementerian Pariwisata dan Ekonomi Kreatif. (2024). *Nilai tambah ekonomi kreatif capai 55,65 persen dari target tahun 2024*. Kemenparekraf Republik Indonesia.

Krisdiyawati, K., & Maulidah, H. (2023). Analisis implementasi akuntansi digital guna pencatatan keuangan pada UMKM. *Jurnal Riset Akuntansi Politala*, 6(1), 100–106.

Kumar, V., Sindhwani, R., Behl, A., Kaur, A., & Pereira, V. (2024). Modelling and analysing the enablers of digital resilience for small and medium enterprises. *Journal of Enterprise Information Management*, 37(5), 1677–1708.

Maihani. (2023). Pengembangan UMKM di era masyarakat digitalisasi. *Jurnal Nasional Komputasi dan Teknologi Informasi (JNKTI)*, 6(1), 49–62.

Nambisan, S. (2017). Digital entrepreneurship: Toward a digital technology perspective of entrepreneurship. *Entrepreneurship Theory and Practice*, 41(6), 1029–1055.

Nugroho, S. (2021). *Strategi pendanaan untuk UMKM*. UB Press.

Pantatu, S. F., & Drajana, I. C. R. (2022). Sistem pendukung keputusan penerima bantuan UMKM menggunakan metode MAUT. *Jurnal Nasional Komputasi dan Teknologi Informasi (JNKTI)*, 5(2), 317–325.

Pusat Penelitian Kependudukan LIPI. (2019). *UMKM dalam era transformasi digital*. LIPI Press.

Regif, S. Y., Seran, M. S. B., Naif, I. Y., Pattipeilohy, A., & Saputri, L. (2023). Literasi digital ekonomi hijau terhadap pemberdayaan UMKM desa di Kabupaten Langkat. *Jurnal Ilmu Politik dan Pemerintahan*, 9(1), 135–147.

Rogers, E. M. (2003). *Diffusion of innovations* (5th ed.). Free Press.

School of Information Systems BINUS University. (2023). *Teknologi yang terlibat dalam transformasi digital pada UMKM di Indonesia*. BINUS University.

Setiawan, A. (2023). *Transformasi digital dalam UMKM Indonesia*. Gramedia.

Soepriyanto, G. (2025). Etika digital dalam transformasi UMKM menuju Indonesia Emas 2045. *Prosiding Dies Natalis ke-44 BINUS University*.

Sugiyono. (2019). *Metodologi penelitian kualitatif, kuantitatif, dan R&D*. Alfabeta.

Sunuantari, M., Zarkasi, I. R., Gunawan, I., & Farhan, R. M. (2021). R-TIK digital literacy towards Indonesian MSMEs (UMKM) digital energy of Asia. *Komunikator*, 13(2), 175–187.

Syafitri, A., & Nisa, F. (2024). Perkembangan serta peran ekonomi kreatif di Indonesia dari masa ke masa. *Jurnal Ekonomi Bisnis dan Manajemen*, 2(3), 189–198.

Tambunan, T. T. H. (2021). *UMKM di Indonesia: Perkembangan, kendala, dan tantangan*. Prenada Media.

Wijaya, D. (2020). *Infrastruktur digital di Indonesia: Peluang dan tantangan*. Erlangga.

Wijaya, K., Dewi, S., & Safitri, A. (2022). Pengaruh pengetahuan lingkungan, persepsi, dan perilaku UMKM batik di Pekalongan dalam mengimplementasikan green economy. *Jurnal Iqtisaduna*, 8(2), 151–165.