



DOI: <https://doi.org/10.38035/dijdbm.v7i1>
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Digital-Based Business Model Transformation of MSMEs: A Qualitative Study of Business Actors in East Lombok

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Abstract: Digital transformation has become a strategic necessity for Micro, Small, and Medium Enterprises (MSMEs) in responding to increasingly dynamic market conditions and competitive business environments. The rapid development of digital technologies, such as social media, online marketplaces, and digital payment systems, has driven fundamental changes in how MSMEs design and operate their business models. This study aims to analyze the process of digital-based business model transformation and to explore the experiences, strategies, and challenges faced by MSME actors in East Lombok Regency. This research employs a qualitative approach using a case study method, with data collected through in-depth interviews with MSME owners who have adopted digital technologies in their business activities. The findings indicate that digital transformation affects several key components of the business model, including value proposition, distribution channels, customer relationships, and cost and revenue structures. Digitalization enables MSMEs to expand market reach and improve operational efficiency; however, it also presents challenges related to digital literacy, infrastructure limitations, and human resource adaptability. This study contributes to the literature on digital business management and provides practical implications for policymakers and stakeholders in designing contextual digital empowerment strategies for MSMEs at the regional level.

Keyword: Digital Transformation, Business Model, MSMEs, Digital Business, East Lombok.

INTRODUCTION

The rapid advancement of digital technology has fundamentally reshaped the global business landscape, altering not only how firms operate but also how value is created, delivered, and captured across industries. Digitalization has evolved beyond the mere adoption of information technology as a support system and has instead become a transformative force that restructures organizational processes, business models, and competitive strategies (Vial, 2019). For Micro, Small, and Medium Enterprises (MSMEs), this transformation represents both an unprecedented opportunity and a significant challenge, as digital technologies disrupt traditional modes of production, distribution, and customer engagement.

In contemporary business environments, digital transformation is increasingly understood as a holistic process involving organizational change, strategic realignment, and cultural adaptation, rather than simply technological implementation (Teece, 2018). MSMEs are therefore required to continuously adapt their business models in order to remain relevant and competitive in markets characterized by rapid innovation, shortened product life cycles, and heightened customer expectations. Failure to adapt to digital disruption may result in declining competitiveness or even business exit, particularly for small firms with limited resources (Kraus et al., 2021).

In the Indonesian context, MSMEs play a vital and strategic role in national economic development. They contribute significantly to employment generation, poverty reduction, and regional economic resilience. According to government reports, MSMEs account for the majority of business units in Indonesia and absorb a substantial proportion of the labor force. Despite this central role, many Indonesian MSMEs continue to face persistent structural challenges, including limited access to formal financing, inadequate technological capabilities, weak managerial capacity, and restricted market access (Tambunan, 2019). These constraints have historically limited their ability to scale up and compete beyond local markets.

Digital-based business model transformation has emerged as a strategic pathway for addressing these structural limitations. By leveraging digital platforms such as social media, e-commerce marketplaces, and digital payment systems, MSMEs can reduce transaction costs, overcome geographical barriers, and directly engage with customers in ways that were previously unattainable (Osterwalder & Pigneur, 2010). Digital technologies enable MSMEs to redesign their value propositions, optimize distribution channels, and build more personalized customer relationships, thereby enhancing both efficiency and market responsiveness.

However, the process of digital transformation is not uniform across regions or sectors. East Lombok Regency represents a peripheral region with substantial MSME potential, particularly in trade, culinary businesses, handicrafts, and service-oriented enterprises rooted in local culture and community-based economic activities. Most MSMEs in this region are family-owned and rely heavily on traditional business practices, informal management structures, and local market networks. While these characteristics provide resilience and cultural embeddedness, they also pose challenges in adopting standardized digital business practices.

In recent years, particularly following the COVID-19 pandemic, there has been a notable acceleration in digital adoption among MSMEs in East Lombok. Movement restrictions, declining offline sales, and disruptions in supply chains forced many business actors to explore alternative digital channels for marketing, sales, and customer communication. Similar patterns have been observed globally, where crises act as catalysts for digital transformation by exposing the vulnerabilities of conventional business models (Priyono et al., 2020). Nevertheless, the extent and depth of digital transformation among MSMEs remain uneven and often superficial.

Importantly, digital transformation among MSMEs should not be reduced to the mere use of digital tools. Scholars emphasize that meaningful transformation involves changes in mindset, organizational learning, strategic orientation, and business culture (Warner & Wäger, 2019). Many MSMEs struggle to internalize digital logic within their business strategies, resulting in partial or fragmented adoption of digital technologies without significant changes to their underlying business models. This condition often limits the long-term impact of digitalization on business performance.

Moreover, MSMEs in regional contexts such as East Lombok face additional barriers, including low levels of digital literacy, limited internet infrastructure, and resistance to change rooted in cultural norms and risk-averse attitudes. These challenges contribute to non-linear and sometimes contradictory transformation processes, where digital adoption coexists with deeply entrenched traditional practices. Understanding these dynamics requires analytical approaches

that go beyond quantitative performance indicators and instead capture the lived experiences and interpretations of MSME actors.

Previous research on MSME digital transformation has predominantly employed quantitative methodologies, focusing on variables such as technology adoption rates, productivity gains, and financial performance outcomes (Kraus et al., 2021). While such studies provide valuable generalizations, they often overlook the subjective dimensions of transformation, including how MSME owners perceive digital technologies, negotiate change, and reinterpret their business identities in digital contexts. Qualitative insights into these experiences remain limited, particularly in rural and semi-urban regions of Indonesia.

This study seeks to address this gap by examining the digital-based business model transformation of MSMEs in East Lombok Regency through a qualitative approach. By focusing on the perspectives and experiences of MSME actors, this research aims to uncover how digital transformation reshapes business model components—such as value propositions, customer relationships, distribution channels, and revenue structures—within specific local and cultural contexts. The study also explores the challenges and adaptive strategies employed by MSMEs in navigating digital transformation.

The findings of this research are expected to contribute theoretically to the growing body of literature on digital business management and business model innovation in MSMEs. Practically, the study offers insights for policymakers, development agencies, and business support institutions in designing more contextual and inclusive digital empowerment programs that align with the realities of MSMEs in regional economies such as East Lombok.

The problem formulation contains article questions that must be explained in the discussion and answered in the conclusion.

METHOD

This study adopted a qualitative research design to examine the digital-based business model transformation of Micro, Small, and Medium Enterprises (MSMEs) in East Lombok Regency. A qualitative approach was considered appropriate because digital transformation is a contextual and socially constructed process that requires in-depth understanding of actors' experiences, interpretations, and strategic actions rather than mere measurement of outcomes (Vial, 2019; Creswell & Poth, 2018).

The research subjects consisted of MSME owners operating in the trade, culinary, handicraft, and service sectors in East Lombok Regency. Participants were selected using purposive sampling with the following criteria: (1) MSMEs that have operated for at least two years; (2) MSMEs that actively use digital platforms such as social media, online marketplaces, or digital payment systems; and (3) owners or managers who are directly involved in business decision-making. A total of twelve MSME actors were involved, which was sufficient to reach data saturation in qualitative inquiry (Guest et al., 2012).

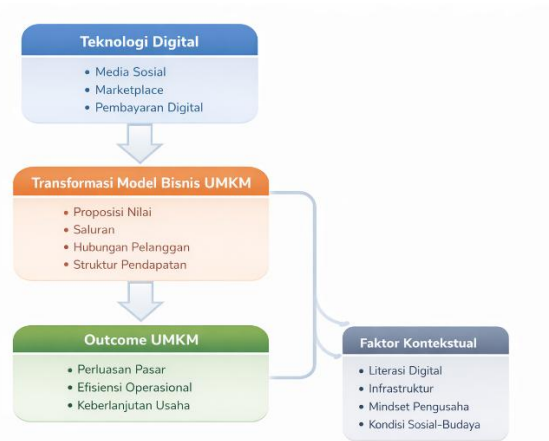


Figure 1. Conceptual Framework of Digital-Based Business Model Transformation among MSMEs in East Lombok

The research was conducted in East Lombok Regency, West Nusa Tenggara, Indonesia, over a three-month period from March to May 2025. Data were collected through semi-structured in-depth interviews, supported by limited observation and document analysis of digital business activities (e.g., online store pages, social media content, and transaction records). Interviews focused on changes in business models, digital strategies, perceived benefits, and challenges of digital transformation.

Data analysis was conducted using thematic analysis with an inductive approach. Interview transcripts and supporting data were coded and categorized into key themes related to business model components, including value proposition, customer relationships, channels, and revenue mechanisms (Osterwalder & Pigneur, 2010). The analysis followed an iterative process of data reduction, categorization, and interpretation to identify patterns of digital transformation among MSMEs.

RESULTS AND DISCUSSION

Digital-Based Business Model Transformation of MSMEs in East Lombok

The findings of this study demonstrate that the adoption of digital technologies has led to substantive transformations in the business models of MSMEs in East Lombok. These transformations go beyond the mere use of digital tools and reflect deeper changes in how MSMEs create value, deliver value to customers, and capture economic returns. In line with the business model perspective, digitalization has altered the fundamental logic of business operations, particularly in terms of value proposition, customer interaction, and revenue generation mechanisms (Teece, 2018; Vial, 2019).

Prior to digital adoption, MSMEs in East Lombok generally relied on conventional value propositions rooted in product availability, local trust, and face-to-face transactions. Value creation was largely limited to functional benefits, with minimal differentiation and strong dependence on geographically proximate markets.

However, the integration of digital platforms—especially social media and online marketplaces—enabled MSMEs to redefine their value propositions by emphasizing convenience, accessibility, visual attractiveness, and responsiveness to customer needs. Products began to be presented not only as commodities, but also as representations of local identity and personalized consumer experiences. This finding supports earlier studies which argue that digital transformation allows small firms to enhance perceived customer value by embedding communication, service, and relational elements into their offerings (Bharadwaj et al., 2013; Verhoef et al., 2021).

Digital adoption also significantly transformed the channels through which MSMEs reach and interact with customers. Traditionally, sales channels were dominated by physical stores, local markets, and direct selling practices, which constrained market reach and business scalability. The use of digital channels expanded access to broader and more diverse consumer segments, enabling MSMEs to overcome spatial limitations and reduce dependency on intermediaries. This shift illustrates a transition from single-channel, offline distribution to hybrid and multi-channel business models, a pattern that has been widely identified as a key characteristic of digital business transformation among MSMEs (Kraus et al., 2021).

Changes were also evident in the nature of customer relationships. In conventional settings, interactions between MSMEs and customers were largely transactional and episodic, relying heavily on personal familiarity and informal communication. Digital platforms facilitated more continuous, interactive, and transparent relationships through direct messaging, customer feedback, and online reviews. These interactions allowed MSMEs to respond more quickly to customer needs and to build stronger engagement and trust over time. Nevertheless, the findings suggest that the effectiveness of digital customer relationship management varied considerably among MSMEs, largely due to differences in digital literacy and communication capabilities. This indicates that digital transformation does not automatically generate relational benefits, but depends on the strategic and skill-based capacity of business actors (Vial, 2019).

The transformation of business models also affected the revenue structures of MSMEs in East Lombok. Previously, revenue streams were primarily based on cash transactions and daily sales volumes, making income highly volatile and vulnerable to local demand fluctuations. Digital platforms introduced alternative revenue mechanisms, including online ordering systems, digital payments, and promotional pricing strategies. Several MSMEs experienced increased sales stability and operational efficiency as a result of non-cash transactions and pre-order arrangements. However, digitalization also introduced new cost structures, such as platform fees and intensified price competition, which in some cases pressured profit margins. This finding reinforces the argument that digital transformation presents both opportunities and risks, requiring MSMEs to continuously adapt their pricing and cost management strategies to sustain competitiveness (Teece, 2018; Verhoef et al., 2021).

Overall, the results indicate that digital-based business model transformation among MSMEs in East Lombok is a dynamic and context-dependent process. Digital technologies function as enabling mechanisms that facilitate changes across core business model components, but the depth and outcomes of transformation are shaped by internal capabilities and external conditions. These findings contribute to the growing body of literature that conceptualizes digital transformation not as a linear technological shift, but as an ongoing strategic reconfiguration of business models in response to changing market and technological environments.

The Role of Digital Technologies as Enablers of MSMEs' Business Model Transformation

The findings of this study indicate that digital technologies function as key enablers facilitating the transformation of MSMEs' business models in East Lombok. Rather than acting as direct determinants of business success, digital technologies create enabling conditions that allow MSME actors to reconfigure their strategies, operational processes, and interactions with customers. This finding supports the view that digital transformation is fundamentally a strategic and organizational process in which technology serves as a catalyst rather than an isolated solution (Vial, 2019).

Evidence from field interviews suggests that digital technologies enhance the adaptive capacity of MSME actors by providing faster access to market information and customer feedback. MSME owners reported that interactions through digital platforms allowed them to better understand customer preferences and respond more quickly to changes in demand. For example, Amaq Ahmad, a culinary MSME actor in East Lombok, stated that digital platforms

enabled him to adjust product offerings and pricing strategies based on direct customer responses received through online channels. This shift reduced reliance on intuition alone and encouraged more informed decision-making, consistent with the argument that digital technologies expand the strategic cognition of small business owners (Bharadwaj et al., 2013).

Digital technologies were also found to facilitate changes in operational and managerial practices. Several MSME actors highlighted that the use of digital payment systems and online transaction records improved financial transparency and efficiency. Marni, a handicraft MSME owner, explained that digital payments simplified transaction processes and helped her monitor daily sales more accurately, compared to manual bookkeeping practices used previously. These findings indicate that digital technologies enable MSMEs to formalize and streamline internal processes, thereby supporting more efficient resource management. Similar observations have been reported in previous studies emphasizing the role of digital tools in improving operational coordination among small firms (Verhoef et al., 2021).

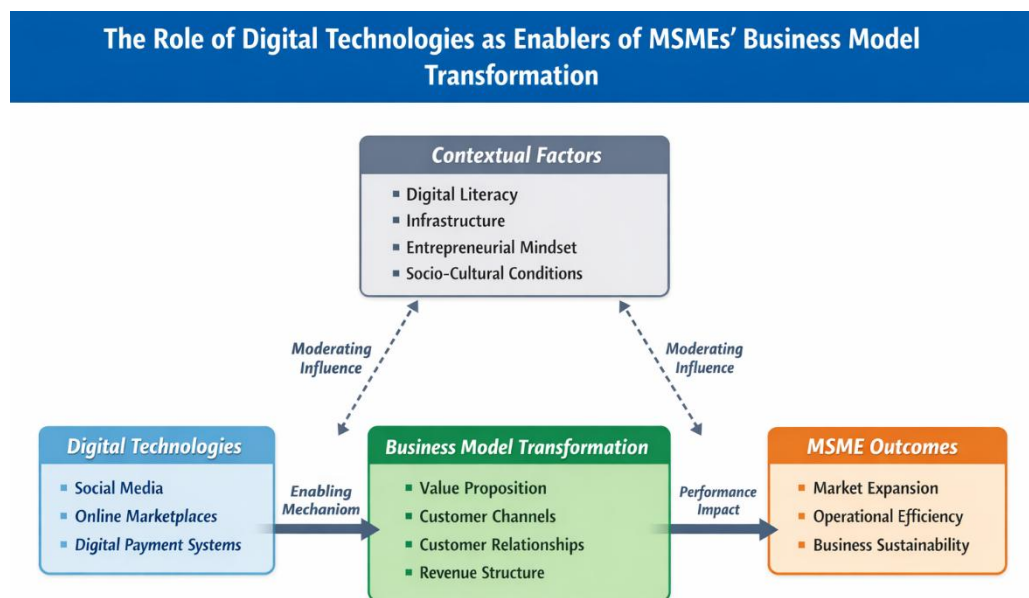


Figure 2. Conceptual Framework of Digital Technology-Enabled Business Model Transformation among MSMEs

To synthesize the discussion, Figure 2 illustrates how digital technologies enable business model transformation among MSMEs. Rather than acting as direct drivers of performance, digital platforms facilitate changes in value creation, delivery, and capture processes, while contextual factors moderate the transformation and its outcomes.

This enabling role is empirically reflected in the expansion of MSMEs' business networks beyond local boundaries. The study found that MSME actors increasingly used digital platforms not only to reach customers, but also to connect with suppliers, resellers, and fellow entrepreneurs. Amaq Ahmad noted that participation in online business communities allowed him to exchange information about suppliers and promotional strategies, which would have been difficult to access through conventional networks. This finding underscores the role of digital technologies as a form of social and economic infrastructure that supports the development of broader business ecosystems for MSMEs (Kraus et al., 2021).

However, the enabling role of digital technologies was not uniform across all MSMEs. The findings reveal that differences in digital literacy, prior experience, and entrepreneurial mindset significantly influenced how effectively technologies were utilized. While some

MSME actors strategically integrated digital platforms into their business models, others perceived digital tools merely as supplementary promotional channels. Marni, for instance, acknowledged that limited digital skills constrained her ability to fully exploit online marketplaces, indicating that technological adoption alone does not guarantee transformative outcomes. This finding reinforces the argument that the effectiveness of digital transformation depends on the alignment between technology, managerial capabilities, and strategic orientation (Teece, 2018; Vial, 2019).

Overall, the study demonstrates that digital technologies serve as enablers of MSMEs' business model transformation in East Lombok by enhancing access to information, improving operational efficiency, and expanding business networks. Nevertheless, their transformative impact remains contingent upon the ability of MSME actors to integrate digital tools into their business logic and strategic decision-making processes. These results highlight the importance of viewing digital transformation as a socio-technical process shaped by both technological opportunities and human capabilities.

Contextual Factors Influencing Digital Business Model Transformation of MSMEs

The findings of this study indicate that digital business model transformation among MSMEs in East Lombok is strongly shaped by contextual factors that extend beyond technological availability. While digital platforms provide technical opportunities for transformation, their effective utilization is contingent upon social, cognitive, and infrastructural conditions surrounding MSME actors. This underscores the argument that digital transformation is a context-dependent process, particularly in peripheral and rural economic settings (Vial, 2019; Verhoef et al., 2021).

One of the most critical contextual factors identified is the level of digital literacy among MSME actors. Field evidence suggests that variations in digital skills significantly influence how MSMEs interpret and use digital technologies. MSME owners with higher levels of digital literacy tend to perceive digital platforms as strategic instruments for business development, enabling experimentation with new value propositions, pricing strategies, and customer engagement models. In contrast, MSMEs with limited digital literacy often reduce digital adoption to basic promotional activities, thereby limiting the transformative potential of technology. This finding highlights that digital transformation is not merely a matter of access to technology, but fundamentally a learning and capability-building process (Bharadwaj et al., 2013).

Infrastructure availability also plays a decisive role in shaping digital transformation outcomes. Although basic internet access is increasingly available in East Lombok, inconsistencies in network quality and digital service reliability remain significant constraints. These infrastructural limitations affect the continuity of online business operations and reduce MSMEs' confidence in relying fully on digital channels. As a result, many MSMEs adopt hybrid business models that combine digital and conventional practices, rather than transitioning entirely to digital modes of operation. This condition illustrates how infrastructural contexts mediate the pace and depth of business model transformation, particularly in developing regional economies (Kraus et al., 2021).

Another important contextual dimension concerns the entrepreneurial mindset of MSME actors. The study reveals that mindset differences shape how MSMEs respond to digital opportunities and risks. MSME actors who exhibit a growth-oriented and adaptive mindset tend to view digitalization as an opportunity for long-term business sustainability, even when short-term outcomes are uncertain. Conversely, risk-averse attitudes and strong attachment to traditional business practices often lead to partial or hesitant adoption of digital technologies. This finding suggests that digital transformation is as much a cognitive and cultural shift as it is a technological one, reinforcing the need to consider human agency in digital business research (Teece, 2018).

Socio-cultural conditions further influence the transformation process. In East Lombok, many MSMEs operate within tightly knit community structures and are embedded in local cultural norms that emphasize personal trust and face-to-face interaction. While these social relations provide strong foundations for business legitimacy, they can also slow the adoption of impersonal digital transactions. Nevertheless, the findings indicate that MSMEs that successfully integrate local values into digital practices—such as maintaining personalized communication through online channels—are better positioned to sustain customer trust during digital transition. This demonstrates that digital transformation does not necessarily replace local culture, but can coexist with and even reinforce culturally embedded business practices when managed strategically.

Taken together, these contextual factors reveal that digital business model transformation among MSMEs in East Lombok is neither uniform nor linear. Technology enables transformation, but context determines its trajectory. This insight contributes to the literature by emphasizing that digital transformation frameworks developed in advanced economies cannot be mechanically applied to regional MSME contexts without considering local capabilities, infrastructure, and socio-cultural dynamics. For policymakers and practitioners, these findings highlight the importance of designing digital empowerment initiatives that integrate technological support with capacity building, mindset development, and context-sensitive implementation strategies.

Impacts of Digital Business Model Transformation on MSME Performance and Sustainability



Figure 3. Contextual Factors Influencing Digital Business Model Transformation of MSMEs

The findings of this study indicate that digital-based business model transformation has generated multidimensional impacts on the performance and sustainability of MSMEs in East Lombok. These impacts extend beyond short-term financial outcomes and encompass broader dimensions of market reach, operational efficiency, and long-term business resilience. Importantly, the results suggest that the benefits of digital transformation are not automatic, but emerge through the interaction between transformed business models and contextual conditions surrounding MSME operations (Tece, 2018; Verhoef et al., 2021).

One of the most evident impacts of digital business model transformation is the expansion of market reach. MSMEs that integrated digital channels into their business models were able to access customer segments beyond their immediate geographic areas. Field evidence indicates that online visibility enabled MSMEs to attract consumers from other regions and, in some cases, from outside the province. This market expansion reduced dependency on local demand fluctuations and increased sales opportunities, particularly during periods of economic disruption. These findings align with prior research highlighting the role of digitalization in overcoming spatial constraints faced by small businesses (Kraus et al., 2021).

Digital transformation also contributed to improvements in operational efficiency. The adoption of digital payment systems, online ordering mechanisms, and digital communication tools streamlined transaction processes and reduced operational frictions. MSME actors reported that digital tools facilitated faster transactions, clearer financial records, and more coordinated business activities. However, the findings also reveal that efficiency gains were uneven across MSMEs, largely due to differences in digital competencies and managerial practices. This underscores that operational benefits from digital transformation depend on the extent to which digital tools are effectively embedded into daily business routines (Vial, 2019).

In terms of business sustainability, digital business model transformation enhanced MSMEs' capacity to adapt to changing market conditions. MSMEs with digitally enabled business models demonstrated greater flexibility in adjusting product offerings, pricing strategies, and promotional approaches in response to shifts in consumer behavior. This adaptive capacity was particularly important in navigating periods of uncertainty, such as economic downturns or changes in consumer mobility. Nevertheless, the findings also indicate that increased competition in digital marketplaces and the emergence of new cost structures—such as platform fees and promotional expenses—posed sustainability challenges for some MSMEs. This highlights the paradoxical nature of digital transformation, where opportunities for growth coexist with heightened competitive pressures (Teece, 2018).

Beyond economic performance, digital business model transformation influenced the strategic orientation of MSMEs. Engagement with digital platforms encouraged some MSME actors to adopt a more forward-looking and innovation-oriented perspective, prompting experimentation with new business practices and market strategies. However, this strategic shift was not universal. MSMEs that lacked sufficient digital literacy or faced infrastructural constraints tended to experience limited performance improvements, suggesting that digital transformation can also widen performance disparities among MSMEs. This finding provides an important caution against overly optimistic assumptions regarding the universal benefits of digitalization.

Overall, the results demonstrate that digital business model transformation plays a significant role in enhancing MSME performance and sustainability in East Lombok, but its impacts are contingent upon contextual and capability-related factors. Digital transformation strengthens market access, operational efficiency, and adaptive capacity, yet it simultaneously introduces new challenges related to competition and cost structures. These insights contribute to a more nuanced understanding of digital transformation outcomes and reinforce the importance of aligning digital strategies with MSMEs' internal capabilities and local contexts.

CONCLUSION

This study concludes that digital technology adoption has driven meaningful transformations in the business models of MSMEs in East Lombok, particularly in how value is created, delivered, and captured. Digitalization has enabled MSMEs to redefine their value propositions, expand customer channels, strengthen customer relationships, and diversify revenue structures. However, these transformations are not merely technological shifts, but reflect deeper changes in business logic and strategic orientation. The findings reinforce the

view that digital business model transformation among MSMEs is a multidimensional process that requires alignment between technology, strategy, and organizational capabilities.

From a theoretical perspective, this study contributes to the digital business management literature by extending business model transformation frameworks into a regional MSME context. The findings demonstrate that digital technologies function as enablers rather than determinants of transformation, supporting socio-technical perspectives of digital transformation. By highlighting the role of contextual and human factors, this study challenges linear and technology-centric assumptions commonly found in digital transformation models developed in advanced economies. Thus, the research provides a more context-sensitive understanding of how digital business models evolve within small-scale and resource-constrained enterprises.

Practically, the findings offer important implications for MSME development strategies. Digital empowerment initiatives should not focus solely on increasing access to digital platforms, but also prioritize capacity building in digital literacy, strategic thinking, and managerial skills. Training programs that integrate technological skills with business model innovation can enhance the effectiveness of digital adoption among MSMEs. Moreover, infrastructure development and platform governance need to be strengthened to reduce operational risks and ensure more equitable digital participation for regional MSMEs.

Finally, this study highlights that digital business model transformation has significant implications for MSME performance and sustainability. While digitalization can expand markets, improve efficiency, and enhance adaptive capacity, it also introduces new competitive pressures and cost structures. Therefore, policymakers and practitioners should adopt balanced approaches that support MSMEs in managing both the opportunities and challenges of digital transformation. Future research may build on these findings by employing longitudinal designs or comparative regional studies to further examine the dynamic relationship between digital transformation, context, and MSME sustainability.

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