

The Role of Digital Managerial Intervention in Micro and Small Business Empowerment: An Empowerment Theory Perspective

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Abstract: *Micro, Small, and Medium Enterprises (MSMEs) play an important role in supporting economic growth and employment in Indonesia, but still face various challenges, particularly in terms of managerial management and the use of digital technology. This study aims to analyze MSME development through digital managerial interventions based on Empowerment Theory, using a case study of VJ Homebake Bakery & Eatery located in Mojokerto City, East Java. This study uses a qualitative approach with a participatory case study method, in which the researcher is directly involved in the business assistance process. The interventions carried out included optimizing the digital visibility of the business, strengthening branding and product packaging strategies, and implementing a digital payment system to improve operational efficiency. The analytical framework refers to Psychological Empowerment Theory, which emphasizes the cognitive, affective, and behavioral dimensions in the process of strengthening the capacity of business actors. The results of the study show that managerial digital interventions can improve digital literacy, confidence, and active participation of business owners in business management. In addition, increased business visibility and transaction efficiency have a positive impact on operational performance and customer engagement. These findings confirm that empowerment-based digital managerial interventions are an effective strategy in supporting the sustainability and competitiveness of MSMEs at the local level.*

Introduction

Micro, Small, and Medium Enterprises (MSMEs) are a fundamental component of the national and global economic structure due to their significant contribution to job creation, poverty alleviation, and income distribution among the population. Globally, MSMEs are seen as a key instrument in achieving inclusive and sustainable economic growth, especially in developing countries facing structural inequality challenges (World Bank, 2020; OECD, 2021; UNDP, 2022). In the context of contemporary economic dynamics, increasingly complex business environments, technological disruption, and changes in consumer behavior require

MSMEs to adapt through systematic and sustainable digital transformation (Kraus et al., 2021; Priyono et al., 2020).

The digital transformation of MSMEs is no longer limited to the use of social media or online marketing platforms, but includes fundamental changes in managerial systems, operational processes, data-driven decision-making, and the integration of digital payment systems (Bai et al., 2021; Zahra et al., 2022). Various studies show that MSMEs that are able to adopt integrated digital technology tend to have higher operational efficiency, wider market reach, and better business resilience in facing economic crises (Rahayu & Day, 2023; Scuotto et al., 2022). Therefore, the digitalization of MSMEs is seen as one of the main prerequisites for improving the competitiveness and sustainability of small businesses.

The issue of MSME digitalization is strongly linked to the global Sustainable Development Goals (SDGs) agenda, particularly SDG 8 (Decent Work and Economic Growth), SDG 9 (Industry, Innovation, and Infrastructure), and SDG 10 (Reduced Inequalities). Strengthening MSMEs through digital innovation is considered capable of creating inclusive economic growth, increasing labor productivity, and expanding small business actors' access to markets and formal financial services (United Nations, 2023; UNDESA, 2022). Thus, interventions that encourage MSME digitalization not only impact business performance but also contribute directly to the achievement of sustainable development goals at the local and national levels.

In Indonesia, MSMEs occupy a very strategic position in the national economy. Data from the Central Statistics Agency and the Ministry of Cooperatives and SMEs show that MSMEs contribute more than 60% to the Gross Domestic Product (GDP) and absorb around 97% of the national workforce (BPS, 2023; Ministry of Cooperatives and SMEs, 2023). The Indonesian government has initiated various policies to encourage the digital transformation of MSMEs, including through the MSME Go Digital program, strengthening the digital economy ecosystem, and expanding financial inclusion through the QRIS-based payment system (Bank Indonesia, 2022; Coordinating Ministry for Economic Affairs, 2023). These policies reflect the government's commitment to integrating MSME development with the sustainable development agenda.

However, various studies show that the level of digital adoption among MSMEs in Indonesia still faces significant challenges, especially in non-metropolitan areas and small cities. These obstacles include limited digital literacy, low human resource capacity, weak managerial systems, and a lack of strategic understanding regarding the use of digital technology (Pratama & Nugroho, 2021; Lestari et al., 2022; Kurniawan et al., 2022). In addition to structural factors, the psychological aspects of MSME actors, such as low self-confidence, resistance to change, and fear of technological risks, are also major obstacles in the digital transformation process (Sutrisno et al., 2021; Widodo & Sulistiyani, 2024).

In this context, Psychological Empowerment Theory provides a relevant conceptual framework for understanding how increasing the internal capacity of MSME actors can drive the success of digital interventions. This theory emphasizes that empowerment encompasses the interrelated dimensions of cognition (understanding and competence), affect (motivation and self-confidence), and behavior (active participation and decision-making) (Zimmerman, 1995; Maynard et al., 2021). Recent studies show that psychological empowerment plays a significant role in increasing the readiness of MSMEs to adopt digital innovations and maintain business sustainability in the long term (Rahman et al., 2023; Scuotto et al., 2022).

However, empirical studies over the past five years have been dominated by research that treats digitalization as a technical variable and links it directly to the financial

performance of SMEs. Research that integrates managerial digital interventions with a holistic empowerment approach, especially through direct academic-based mentoring, is still relatively limited, particularly in the context of regional culinary MSMEs (Kurniawan et al., 2022; Rahmawati et al., 2023). This indicates a research gap regarding the empowerment mechanisms that bridge digitalization and MSME sustainability at the micro level.

At the local level, Mojokerto City, East Java, is an area with rapid growth in the culinary MSME sector, but it still faces problems of managerial limitations, weak branding, and low utilization of digital technology in business operations. Therefore, this study is relevant to examine MSME development through managerial digital intervention based on Empowerment Theory, with a case study on VJ Homebake Bakery & Eatery. This research is expected to contribute theoretically to the development of SME literature and practically to the formulation of academic-based SME assistance strategies that support the sustainable achievement of SDG 8, SDG 9, and SDG 10.

Research Method

This study uses a qualitative approach with a case study design, which aims to gain an in-depth understanding of the development of Micro, Small, and Medium Enterprises (MSMEs) through managerial digital interventions based on Empowerment Theory. This approach was chosen because it allows researchers to explore the processes, meanings, and dynamics of change experienced by business actors in a real context, particularly in relation to managerial and digital transformation at the micro and small business scale. Case studies are considered appropriate for examining phenomena contextually and comprehensively in a single unit of analysis, namely VJ Homebake Bakery & Eatery in Mojokerto City, East Java.

The research was conducted at VJ Homebake Bakery & Eatery with the main research subjects being the business owner as the key informant, as well as academic assistants involved in the intervention process. The selection of the location and research subjects was based on the consideration that these MSMEs represent local culinary businesses that still face limitations in terms of management, branding, and the use of digital technology. Research data was collected through in-depth interviews, participatory observation, and documentation to obtain comprehensive data and capture changes in business conditions before and after the digital managerial intervention.

The digital managerial intervention was carried out in a participatory and gradual manner during the research period. The stages of intervention included identifying business problems and needs, increasing digital visibility, strengthening branding and product packaging, and implementing a digital payment system to improve operational efficiency. The entire series of interventions was designed based on the principles of Empowerment Theory, emphasizing the improvement of the cognitive, affective, and behavioral capacities of business actors, so that MSMEs not only received technical assistance but also experienced increased confidence and independence in business management.

Data analysis was conducted using thematic analysis, which included data reduction, theme grouping, data presentation, and systematic conclusion drawing. The data was analyzed with reference to the dimensions of Empowerment Theory, namely cognitive, affective, and behavioral, to identify the impact of managerial digital interventions on MSME development. Data validity was maintained through triangulation of methods and sources, as well as member checking with key informants to ensure the validity and credibility of the research findings.

Result and Discussion

Research data was collected to describe the conditions of MSMEs before and after the implementation of managerial digital interventions based on Empowerment Theory. The data presented is descriptive qualitative and was obtained through in-depth interviews, participatory observation, and documentation of mentoring activities. The indicators used were designed to represent the managerial, digitalization, and psychological empowerment aspects of business actors, so that the changes that occurred could be analyzed comprehensively.

Table 1. The Condition of MSMEs Before and After Managerial Digital Intervention

Aspects Analyzed	Conditions Before Intervention	Post-Intervention Conditions
Business Digital Visibility	The business was not optimally registered on digital platforms and was difficult for new customers to find.	Businesses are registered and optimized on digital platforms, making them more accessible to customers.
Payment Systems	Transactions were conducted in cash with manual recording.	Implementation of a more efficient and documented digital payment system (QRIS).
Product Branding and Packaging	The packaging design was simple and did not strongly reflect the brand identity.	Product packaging is updated with more attractive designs and clear brand identities.
Owner Digital Literacy	Limited understanding of the use of digital technology in business management	Improved understanding and ability to use digital technology for business operations
Business Owner Confidence	Hesitant to develop the business and adopt new innovations	Increased confidence and motivation to develop the business
Participation in Business Management	Business management is reactive and oriented towards short-term sustainability	More proactive business management focused on long-term development
Operational Efficiency	Operational processes are relatively slow and unstructured	More efficient and organized operational processes

Source: processed by researcher, 2025

Based on the data in Table 1, there have been positive changes in various aspects of business management after the implementation of managerial digital interventions. Increased digital visibility and the implementation of digital payment systems indicate improvements in operational aspects and market access. In addition, strengthening branding and product packaging has contributed to the formation of a more professional business identity.

Significant changes are also seen in the psychological empowerment of business actors, particularly in terms of increased digital literacy, self-confidence, and active participation in business management. These findings indicate that participatory digital managerial interventions not only have an impact on the technical aspects of the business, but also

strengthen the internal capacity of MSME actors. Thus, the results of this study emphasize the importance of an empowerment approach in supporting the development and sustainability of MSMEs.

Discussion

The results of this study indicate that the managerial digital intervention implemented at VJ Homebake Bakery & Eatery MSME had a significant impact on overall business development. The changes that occurred before and after the intervention reflect that MSME digitalization not only has implications for technical operational aspects, but also for changes in the mindset, behavior, and internal capacity of business actors. These findings reinforce the view that digital transformation in MSMEs is a strategic process that simultaneously encompasses technological, managerial, and human dimensions (Priyono et al., 2020; Kraus et al., 2021).

Increased digital visibility of businesses through the optimization of digital platforms has been proven to expand market access and increase opportunities for interaction with consumers. This condition is in line with the research by Rahayu and Day (2023), which states that digital presence plays an important role in increasing the resilience and competitiveness of MSMEs, especially in facing changes in consumer behavior in the digital economy era. In the context of local MSMEs, digital visibility is an important instrument to overcome geographical and business scale limitations.

From a sustainable development perspective, increasing market access through digitalization contributes to the achievement of SDG 8 (Decent Work and Economic Growth). Digitalization enables MSMEs to increase productivity and expand economic networks inclusively, thereby supporting sustainable local economic growth (United Nations, 2023; OECD, 2021). Thus, strengthening the digital visibility of MSMEs not only impacts business performance but also the broader economic development agenda.

Interventions in the payment system through the implementation of QRIS have a positive impact on the operational efficiency and financial transparency of MSMEs. Digital payment systems accelerate transaction processes and facilitate financial recording, thereby helping business actors to control and evaluate business performance more systematically. These findings are in line with the Bank Indonesia (2022) report and the research by Bai et al. (2021), which show that the digitization of payment systems contributes to increased financial inclusion and operational stability for MSMEs.

In addition to improving efficiency, digital payment systems also play a role in improving the financial literacy of business actors. Understanding cash flow and digital transaction recording encourages more rational and data-driven managerial decision-making. This supports the view that digital infrastructure at the micro level is an important prerequisite for achieving SDG 9 (Industry, Innovation, and Infrastructure), particularly in strengthening the innovation capacity of MSMEs (OECD, 2021).

Strengthening branding and updating product packaging also contribute strategically to improving the image and professionalism of MSMEs. A stronger brand identity and attractive packaging improve the perception of product quality in the eyes of consumers. These findings are in line with Zahra et al. (2022) and Scutto et al. (2022), who emphasize that non-technological innovations, such as branding and product design, are an important part of the digital transformation of MSMEs oriented towards business sustainability.

From the perspective of Psychological Empowerment Theory, increased digital literacy and managerial understanding reflect the strengthening of the cognitive dimension of

empowerment. Business actors become more capable of understanding the opportunities, risks, and benefits of applying digital technology in business management. This is in line with Maynard et al. (2021), who assert that improving individual competence is the main foundation in the empowerment process in organizational and entrepreneurial environments.

In addition to the cognitive dimension, this study also shows the strengthening of the affective dimension of empowerment, which is reflected in the increased confidence and motivation of MSME entrepreneurs in developing their businesses. Increased confidence encourages entrepreneurs to be more open to innovation and change. These findings support the Psychological Empowerment Theory proposed by Zimmerman (1995) and reinforced by the findings of Widodo and Sulistiyani (2024) regarding the role of self-confidence in the sustainability of MSMEs.

Changes in business owners' behavior were also evident in their increased active participation in business management and planning after the intervention. Business management became more proactive and oriented towards long-term development. These findings are in line with Rahman et al. (2023), who stated that psychological empowerment serves as a connecting mechanism between digital intervention and MSME sustainability.

The results of this study confirm that the success of MSME digital transformation is highly dependent on the integration of technical interventions and empowerment approaches. Digitalization without strengthening the internal capacity of business actors risks resulting in temporary technology adoption. Therefore, a holistic approach that combines technology, management, and psychological empowerment is key to the sustainability of MSME digital transformation (Scuotto et al., 2022; OECD, 2021).

The academic assistance provided in this study proved to be effective as a form of community-based intervention. Collaboration between universities and MSMEs enables contextual and sustainable knowledge transfer. These findings are in line with the UNDP (2022) view, which emphasizes the role of educational institutions in supporting local economic development through the strengthening of MSMEs.

In terms of policy, the findings of this study have important implications for the design of MSME digitization programs at the regional level. Digitization programs need to be designed in a participatory and empowerment-oriented manner, not just focused on providing technology. This approach is in line with the recommendations of the United Nations (2023), which emphasize the importance of integrating digitization and human capacity building in achieving the SDGs.

This study also shows that empowerment-based MSME development contributes directly to the achievement of SDG 8, SDG 9, and SDG 10 (Reduced Inequalities). Strengthening local MSMEs through managerial digital interventions promotes economic inclusion and reduces disparities in access to technology and markets, especially for small-scale businesses.

Overall, this discussion confirms that managerial digital interventions based on Empowerment Theory are an effective approach in supporting the development and sustainability of MSMEs. The findings of this study contribute theoretically to enriching the literature on MSME development and practically to the formulation of MSME assistance policies and programs oriented towards inclusive and sustainable local economic development.

Conclusion

This study concludes that managerial digital interventions based on Empowerment Theory have proven effective in supporting MSME development, as demonstrated in the case study of VJ Homebake Bakery & Eatery in Mojokerto City. The intervention, which included increasing the digital visibility of the business, implementing a digital payment system, and strengthening product branding and packaging, was able to improve operational efficiency, market access, and business professionalism, while also strengthening the internal capacity of MSME actors in terms of digital literacy, confidence, and active participation in business management. These findings confirm that SME digital transformation will be more sustainable if integrated with an empowerment approach that places business actors as the main agents of change. Therefore, it is recommended that MSME development programs carried out by local governments, universities, and supporting institutions adopt a holistic and participatory managerial digital approach, emphasizing not only technology adoption but also strengthening the managerial and psychological capacity of business actors. Furthermore, future research is recommended to expand the scope of the object and use diverse methodological approaches to strengthen the generalization of findings and deepen understanding of the role of empowerment in the sustainability of MSME digital transformation.

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