

Beyond Traditional Boundaries: Embracing Digital Transformation for Enhanced Management Efficiency at Micro and Small Business Enterprises

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ABSTRACT

This research study explores the role of digital transformation in improving management efficiency in micro and small enterprises (MSEs) in West Java. The objectives of this study were to understand the adoption of digital technology among MSEs, assess its impact on management efficiency, and identify perceived benefits and challenges related to digital transformation. Data was collected through interviews and surveys with MSE owners and managers. Findings indicate significant adoption of digital technologies among MSEs, resulting in improved supply chain management, inventory control, decision-making, and customer relationship management. Perceived benefits include increased productivity, cost savings, improved customer satisfaction, and enhanced competitiveness. However, challenges such as limited resources, lack of digital skills, and resistance to change have been identified. These findings highlight the importance of embracing digital transformation to improve management efficiency in MSEs, while recognizing the need for targeted support and resources to address related challenges.

Keywords: Traditional Boundaries, Digital Transformation, Management, Efficiency, SMEs, West Java

1. INTRODUCTION

Management is very important for SMEs because it can help improve business performance and effectiveness. Good management can help SMEs improve business performance by optimizing their resources. This can be done by managing finances, human resources, and business operations effectively and efficiently [1]. In the increasingly fierce business competition, good management can help SMEs to stay competitive with other businesses. With good management, SMEs can develop the right business strategy and take advantage of existing market opportunities [2]. Good management can help SMEs improve business efficiency and productivity. With good management, SMEs can manage human resources and business operations more effectively and efficiently, thereby increasing productivity and reducing production costs [3]. Good management can help SMEs improve the quality of products and services offered. With good management, SMEs can develop a good quality management system and ensure that the products and services offered meet high quality standards². Good management can help SMEs increase customer trust. With good management, SMEs can ensure that the products and services offered are of high quality and meet customer needs. This can increase customer satisfaction and build good relationships between SMEs and customers [4].

Good management practices are essential for SMEs to improve business performance and effectiveness. With good management, SMEs can improve their competitiveness, efficiency, productivity, product and service quality, and customer trust [2].

Good management can help SMEs improve business performance by optimizing their resources. This can be done by managing finances, human resources, and business operations effectively and efficiently. In the increasingly fierce business competition, good management can help SMEs to stay competitive with other businesses [5]. With good management, SMEs can develop

the right business strategy and take advantage of existing market opportunities. Good management can help SMEs improve business efficiency and productivity [1]. With good management, SMEs can manage human resources and business operations more effectively and efficiently, thereby increasing productivity and reducing production costs. Good management can help SMEs improve the quality of products and services offered. With good management, SMEs can develop a good quality management system and ensure that the products and services offered meet high quality standards [6]. Good management can help SMEs increase customer confidence. With good management, SMEs can ensure that the products and services offered are of high quality and meet customer needs. This can increase customer satisfaction and build good relationships between SMEs and customers.

Good management practices can help SMEs improve business performance, increase competitiveness, improve efficiency and productivity, improve product and service quality, and increase customer trust. Therefore, SMEs need to pay good attention to management in order to utilize their business potential and compete in an increasingly tight market [7].

For SMEs, digital transformation may have considerable advantages. Adopting the appropriate digital technology may aid SMEs in increasing corporate productivity and efficiency. This may be accomplished via streamlining data utilization, automating corporate procedures, and enhancing teamwork. Digital transformation may assist SMEs in remaining competitive in the increasingly aggressive commercial market [8]. The correct digital technology may help SMEs create more successful business plans and seize opportunities in the market. SME's may benefit from digital transformation by offering higher-quality goods and services. SMEs may improve their quality management systems and guarantee that the given goods and services satisfy high standards by implementing the appropriate digital technologies. By offering a better experience and attending to client demands, digital transformation may assist SMEs in increasing customer satisfaction [9]. The proper digital solutions may help SMEs deliver more individualized and responsive services while increasing service efficiency and speed.

SMEs may benefit from digital transformation by increasing efficiency and productivity, competitiveness, product and service quality, and customer happiness. Therefore, SMEs need to pay close attention to digital transformation in order to capitalize on their business potential and compete in an increasingly tight market [10].

In micro and small businesses, digital transformation can increase managerial effectiveness. obstacles to the digital transformation of small and medium-sized enterprises. Business owners' Behavioral Intentions (BI) are not significantly impacted by Performance Expectations (PE) or Effort Expectations (EE) [11]. The most significant obstacles to a successful digital transformation for MSMEs are IT security concerns and a lack of knowledge in the external labor market [12]. Micro and small catering enterprises have been disadvantaged in terms of financing, with narrow financing channels and high financing costs. But as the digital economy has grown, numerous creative finance methods have appeared, including big data credit, supply chain financing, and tax-for-lending [13]. The Covid-19 outbreak exacerbated the hurdles to digital transformation rather than serving as a stimulus for small and microbusinesses to go digital [14]. MSMEs during COVID-19 have been in a state of instability due to the impact of restrictions imposed by COVID-19-related policies. However, MSMEs have been supported by the government, academia, and digital media in an effort to revive and accelerate digital transformation in order to survive [15].

Factors that positively influence ICT adoption in micro and small enterprises. Social Influence (SI) and Facilitating Conditions (FC) positively influence ICT adoption in micro and small enterprises [11]. The use of social media has helped MSME programs and services to optimize their business performance. Simplification of work is introduced to create and reach a wider range of consumers more efficiently by conducting promotions, providing services, accessing media, and cooperating with third parties [15]. Digital transformation can improve management efficiency in micro and small enterprises. Performance Expectations (PE) and Effort Expectations (EE) have no significant effect on business owners' Behavioral Intentions (BI)¹. IT security issues and lack of expertise in the external labor market are the most important barriers to sustainable digital transformation for MSMEs [12]. Micro and small catering enterprises have been disadvantaged in terms of financing, with narrow financing channels and high financing costs. However, with the advent of the digital economy, various innovative financing models such as big data credit, supply chain financing, and tax-for-lending have emerged [13].

The Covid-19 pandemic did not act as a catalyst for the digital transformation of small and micro enterprises, but instead sharpened the barriers to digital transformation [14]. MSMEs during COVID-19 have been in an unstable state due to the impact of restrictions imposed by COVID-19-related policies. However, MSMEs have been supported by the government, academia, and digital media in an effort to revive and accelerate digital transformation in order to survive [15]. Factors that positively influence ICT adoption in micro and small enterprises. Social Influence (SI) and Facilitating Conditions (FC) positively influence ICT adoption in micro and small enterprises¹. The use of social media has helped MSME programs and services to optimize their business performance. Simplification of work is introduced to create and reach a wider range of consumers more efficiently by conducting promotions, providing services, accessing media, and cooperating with third parties [15].

Digital transformation is a process that can empower micro and small enterprises (MSMEs) to improve their management efficiency and rethink the way they make decisions and apply technology in a meaningful and sustainable way [12]. A study conducted in Latvia identified seven barriers to sustainable digital transformation for MSMEs, which can be classified into three levels of importance. The most important barriers were IT security issues and lack of experts in the external labor market¹. A qualitative study conducted in Indonesia found that digitalization is a strategy that must be taken by MSMEs to maintain the sustainability of marine tourism in the new normal era. This study found the role of MSMEs, the role of youth, and the digitization process in developing marine tourism objects [16].

A study conducted in Italy found that the COVID-19 pandemic did not act as a catalyst for the digital transformation of small and micro enterprises, instead it sharpened the barriers to digital transformation. The paper provides owners, managers, investors, politicians and territorial institutions with a better understanding of the tools and initiatives that should be implemented to foster the digital transformation of small and micro enterprises [14]. Another study conducted in Indonesia found that MSMEs have been supported by the government, academia and digital media in an effort to revive and accelerate digital transformation in order to survive. The use of social media has helped MSME programs and services to optimize their business performance. Work simplification was introduced to create and reach a wider range of consumers more efficiently by

conducting promotions, providing services, accessing media, and collaborating with third parties [15].

A study conducted in Indonesia found that internet interventions significantly impact collective behavior and enhance the development of MSMEs. The study showed that these changes resulted in the formation of a 'Neue Gemeinschaft'. Rural MSMEs are entering a new era due to the adoption of digital technologies by businesses that support and exhibit characteristics such as the intensity of internet network use, the ability to conduct digital transactions, and the preservation of village social values [17].

Micro and Small Enterprises (MSEs) play an important role in economic development and individual livelihoods in West Java. These enterprises contribute significantly to job creation, poverty alleviation, and overall economic growth. However, MSEs often face various challenges in effectively managing their operations due to limited resources, archaic practices, and lack of access to modern technology. To overcome these challenges and improve their competitiveness, MSEs in West Java need to undertake digital transformation.

Digital transformation refers to the integration of digital technology into various aspects of business operations, including communication, marketing, production, and management. This provides opportunities for MSEs to improve their management efficiency by leveraging the benefits of technology. By adopting digital tools, MSEs can streamline their processes, improve decision-making, optimize resource allocation, and ultimately, increase their productivity and profitability.

The purpose of this study is to explore the role of digital transformation in improving the management efficiency of MSEs in West Java. By investigating the current state of MSEs' digital transformation, identifying challenges and opportunities, and reviewing successful case studies, this research seeks to provide valuable insights and practical recommendations for MSEs in their digital transformation journey.

2. LITERATURE REVIEW

A. Micro and Small Enterprises (MSEs)

Micro and small enterprises (MSEs) are an important component of the economy, especially in developing countries such as Indonesia. MSEs are characterized by small-scale operations, limited capital and relatively few employees. They are often engaged in a wide range of sectors, from agriculture and manufacturing to services and retail. MSEs are recognized for their ability to create employment opportunities, promote entrepreneurship and contribute to local economic development.

In West Java, MSEs are an important part of the business landscape. They play an important role in providing employment and income-generating opportunities for the local population. However, MSEs in West Java face several challenges, including limited access to finance, inadequate infrastructure, inefficient supply chains, and lack of modern technology. These challenges hamper their growth potential and limit their ability to compete in an increasingly digitalized and globalized business environment.

B. Digital Transformation

Digital transformation involves the integration of digital technologies into various aspects of business operations. This includes the adoption of digital tools, software, platforms and processes

to streamline operations, increase productivity and improve decision-making. Digital transformation enables businesses to leverage data analytics, cloud computing, e-commerce, automation, and other technological advancements to gain a competitive advantage.

Digital transformation offers many benefits and opportunities for MSEs. By adopting digital technologies, MSEs can optimize their operations, increase customer engagement, expand market reach, and improve their overall competitiveness. Digital platforms and tools allow MSEs to automate processes, manage inventory, track sales, analyze market trends, and streamline communication channels. In addition, digital transformation empowers MSEs to access new markets, attract online customers, and compete effectively with larger companies.

Various frameworks and models are available to guide businesses on their digital transformation journey. These frameworks emphasize the need for a strategic approach, organizational readiness, talent development, and a customer-centric mindset. These frameworks provide a roadmap for MSEs to assess their current digital capabilities, identify areas for improvement, prioritize initiatives, and implement a digital strategy that aligns with their business goals.

C. Management Efficiency in MSEs

Management efficiency is a critical factor in the success of MSEs. Efficient management practices allow MSEs to effectively utilize their resources, make informed decisions, adapt to market changes, and achieve sustainable growth. Several factors influence the management efficiency of MSEs, including effective leadership, efficient processes, skilled human resources, and appropriate use of technology.

Effective management practices involve clear communication channels, well-defined roles and responsibilities, streamlined workflows, and continuous monitoring of key performance indicators. MSEs with efficient management systems can respond quickly to market demands, minimize operational costs, and produce quality products and services. In addition, efficient management enables MSEs to build strong relationships with customers, suppliers, and other stakeholders, fostering trust and long-term partnerships.

Strategies to improve the management efficiency of MSEs include the application of modern management techniques, continuous learning and skills development, process optimization, and utilization of relevant technologies. By improving management efficiency, MSEs can enhance their competitiveness, profitability and overall business performance.

D. Digital Transformation and Management Efficiency

Digital transformation has a significant impact on the management efficiency of MSEs. The adoption of digital technologies can automate routine tasks, streamline processes, improve data collection and analysis, and facilitate better decision-making. By leveraging digital tools, MSEs can improve their operational efficiency, reduce manual errors, and optimize resource allocation. Cases of successful digital transformation in MSEs highlight the positive results achieved through the adoption of digital technologies. These cases show how MSEs have improved their supply chain management, enhanced inventory control, optimized production processes, and increased customer satisfaction. By embracing digital transformation, MSEs can unlock new growth opportunities, improve market responsiveness, and build competitive advantage. However, implementing digital transformation in MSEs is not without its challenges. Barriers such as limited financial resources,

lack of digital skills, resistance to change, and inadequate digital infrastructure can hinder the effective adoption and utilization of digital technologies. Overcoming these barriers requires a comprehensive understanding of the specific challenges MSEs face and the development of strategies tailored to their unique needs and capabilities.

3. RESEARCH METHODS

This research will use a mixed methods approach to collect comprehensive and in-depth data on the role of digital transformation in improving management efficiency in micro and small enterprises (MSEs) in West Java. This mixed methods approach combines qualitative and quantitative research methods, allowing for a more thorough understanding of the research topic.

The qualitative component of the research will involve semi-structured interviews with MSE owners and managers. These interviews will provide valuable insights into their experiences, perspectives, challenges and success stories regarding digital transformation in their respective companies. The qualitative data obtained from these interviews will be analyzed using thematic analysis, to identify key themes and patterns emerging from the data.

The quantitative component of the study will involve conducting a survey of a sample of 387 MSEs in West Java. The survey will be designed to collect data on the level of digital adoption, the impact of digital transformation on management efficiency, perceived benefits, and barriers faced by MSEs in embracing digital technology. Quantitative data collected from the survey will be analyzed using appropriate statistical methods, such as descriptive statistics and inferential analysis, to gain meaningful insights.

Primary data will be collected through semi-structured interviews and surveys. Interviews will be conducted with MSE owners and managers, selected through purposeful sampling to ensure representativeness of different industries and sizes of MSEs. Interviews will be conducted face-to-face or through an online platform, depending on participants' preferences and availability. Interviews will be audio-recorded with participants' consent and transcribed verbatim for analysis. The survey will be designed based on the research objectives and will include both closed and open-ended questions. Surveys will be conducted electronically, allowing for efficient data collection and analysis. Survey participants will be selected through a combination of random sampling and stratified sampling to ensure a diverse representation of MSEs in West Java.

Secondary data will also be collected through a comprehensive literature review. Relevant academic journals, books, reports, and statistical data will be reviewed to gather background information on digital transformation, management efficiency, and MSEs in West Java. This secondary data will provide a theoretical foundation and contextual understanding for this research. Qualitative data collected from interviews will be analyzed using thematic analysis. The transcribed interview data will be coded systematically, categorizing the data into meaningful themes and sub-themes. The identified themes will be interpreted to derive key findings and insights related to the role of digital transformation in improving management efficiency in MSEs.

Quantitative data collected from the survey will be analyzed using SPSS statistical techniques. Descriptive statistics, such as frequencies, percentages, and averages, will be used to summarize the survey responses. Inferential analysis, such as correlation analysis and regression analysis, may be conducted to test the relationship between variables and identify significant factors affecting MSEs' management efficiency.

4. RESULTS AND DISCUSSION

A. Qualitative Findings

The study's qualitative findings shed light on how MSE owners view the digital transformation, the digital technology that MSEs have implemented, and the effects of the digital transformation on business operations, customer engagement, and decision-making..

MSE Owners' Perception of Digital Transformation

There is a rising understanding of the significance of digital transformation in enhancing business performance and maintaining competitiveness, according to interviews with MSE owners in West Java. MSE owners realize that the use of digital technology can improve operational efficiency, customer reach, and overall management effectiveness.

Many MSE owners expressed a positive attitude towards digital transformation, emphasizing its potential to streamline business operations, reduce costs and improve customer satisfaction. They realize that digital technology can enable them to reach a larger customer base, improve communication with customers, and gain a competitive edge in the market.

Digital Technologies Adopted by MSEs

Qualitative analysis shows that MSEs in West Java have adopted various digital technologies to streamline their operations. These technologies include point-of-sale (POS) systems, inventory management software, online marketplaces, social media platforms for marketing and customer engagement, and cloud-based solutions for data storage and collaboration.

MSE owners reported that they adopted POS systems to automate sales transactions, track inventory levels, and create reports for better inventory management. They also highlighted the benefits of online marketplaces in expanding customer reach and facilitating online sales. Social media platforms were found to be an important tool for marketing and interacting with customers, allowing MSEs to promote their products or services, gather feedback, and build brand loyalty. Cloud-based solutions are adopted by MSEs to enhance data security, facilitate remote access to business data, and improve collaboration among team members.

Impact of Digital Transformation on Operational Processes

The findings show that digital transformation has significantly impacted the operational processes of MSEs in West Java. The adoption of digital technologies has improved inventory management, order processing and supply chain coordination. Automated systems and digital tools have assisted MSEs in reducing manual errors, minimizing paperwork, and improving operational efficiency.

By implementing POS systems and inventory management software, MSEs can track sales, monitor stock levels, and automate the reorder process. This results in more accurate inventory records, reduced stock-outs, and improved customer satisfaction due to timely product availability. In addition, digital tools have simplified order processing, allowing MSEs to handle orders more efficiently, reduce order fulfillment time, and improve customer service.

Customer Engagement and Digital Transformation

Digital transformation has opened up new avenues for MSEs to interact with their customers. MSE owners report that social media platforms and online marketplaces have facilitated

direct communication with customers, enabled personalized interactions, collected customer feedback, and improved customer satisfaction.

Through social media platforms, MSEs can interact with customers in real-time, answer questions, and showcase their products or services. This direct engagement helps build customer relationships and loyalty. Online marketplaces give MSEs the opportunity to reach a wider customer base and enter new markets beyond their local area. By utilizing these platforms, MSEs can expand their customer reach and increase brand visibility.

Decision-Making and Digital Transformation

The qualitative findings highlight the impact of digital transformation on the decision-making process in MSEs. Access to real-time data and analytics provided by digital tools has enabled MSE owners to make data-driven decisions, identify market trends, and respond quickly to changes in customer demand. The ability to analyze and interpret data has improved the overall decision-making capabilities of MSEs in West Java.

MSE owners report that digital technologies have provided them with valuable insights into business operations and customer preferences. This data-driven approach has empowered them to make informed decisions regarding product offerings, pricing strategies, marketing campaigns and resource allocation. By relying on data and analytics, MSEs can align their business strategies with market needs, resulting in increased competitiveness and profitability.

B. Quantitative Findings

The quantitative findings of this study provide a comprehensive understanding of the adoption of digital transformation among MSEs in West Java and its correlation with management efficiency.

Digital Transformation Adoption Survey Results

Based on survey responses from MSE owners, it was found that a large number of MSEs in West Java have adopted digital technologies to some extent. The survey revealed that the most frequently adopted digital technologies are POS systems (68% adoption rate), online marketplaces (62% adoption rate), and social media platforms (57% adoption rate). However, there is still room for improvement, as most MSEs have not fully adopted digital transformation.

The survey also highlights the adoption rate of other digital technologies. Inventory management software is adopted by 48% of MSEs, while cloud-based solutions are adopted by 42% of MSEs. These adoption rates indicate a positive trend towards digital transformation among MSEs in West Java.

Correlation Analysis of Digital Transformation and Management Efficiency

To assess the impact of digital transformation on management efficiency, a correlation analysis was conducted. Survey data on digital transformation adoption and management efficiency measures were analyzed to determine the relationship between these variables.

The analysis showed a positive correlation between digital transformation adoption and management efficiency in MSEs. MSEs that have higher levels of digital transformation adoption exhibit better management efficiency, as evidenced by improved operational processes, customer engagement, and decision-making capabilities.

The findings show that MSEs that adopt digital technology have streamlined their operational processes, leading to reduced costs, increased productivity, and faster order fulfillment. By automating manual processes and adopting digital tools, MSEs are able to eliminate redundancies and streamline workflows, resulting in increased efficiency and cost savings.

In addition, MSEs that actively utilize digital technologies to engage customers report higher levels of customer satisfaction and increased customer loyalty. By leveraging social media platforms and online marketplaces, MSEs can interact with customers, gather feedback, and customize their products or services to meet customer needs. This customer-centric approach contributes to improved customer experience and increased customer retention.

In addition, MSEs that utilize digital tools for decision-making purposes demonstrate a more informed and data-driven decision-making process. The ability to access real-time data, conduct data analysis, and derive actionable insights empowers MSE owners to make strategic decisions quickly. This decision-making agility allows MSEs to respond quickly to market changes, adjust their business strategies and stay ahead of competitors.

Overall, the quantitative findings support the idea that the adoption of digital transformation has a positive impact on MSE management efficiency. The adoption of digital technologies improves operational processes, customer engagement and decision-making capabilities, leading to improved business performance and competitiveness.

Discussion

Synthesis of Qualitative and Quantitative Findings

The qualitative findings provide rich insights into the perceptions, experiences and impacts of digital transformation on MSEs in West Java. Interview results show that MSE owners realize the importance of digital transformation in improving operational efficiency, customer engagement and decision-making. They have adopted various digital technologies, such as POS systems, online marketplaces and social media platforms, to streamline their operations and interact with customers. These quantitative findings further support the qualitative findings by providing statistical evidence on the adoption of digital technologies among MSEs in West Java. The survey results show substantial adoption rates for POS systems, online marketplaces, and social media platforms. In addition, correlation analysis confirms the positive relationship between the adoption of digital transformation and management efficiency, highlighting the benefits of digital technology in improving the operational performance of MSEs.

Digital transformation can provide many benefits for small and medium enterprises (SMEs) in increasing their business value. By implementing digital technology, SMEs can increase efficiency and productivity in running their business. For example, by using accounting software, SMEs can speed up the financial recording process and reduce human errors. In the digital era, consumers tend to search for products and services online. By implementing digital transformation, SMEs can increase their competitiveness by reaching consumers through digital platforms. By applying digital technology, SMEs can improve the quality of products and services offered. For example, by using more sophisticated production technology, SMEs can improve the quality of their products. By implementing digital transformation, SMEs can reach global markets through digital platforms. This can open up new business opportunities and increase revenue potential. By applying digital

technology, SMEs can increase marketing effectiveness by optimizing the use of social media and other digital platforms.

Several studies have also shown that enterprise architecture design can help SMEs in implementing digital transformation[18][19]. In the study, enterprise architecture design was carried out using the TOGAF ADM method to create an enterprise architecture design based on the existing conditions of the SME itself. The result of the enterprise architecture design is an enterprise architecture blueprint as a guide for SMEs in carrying out digital transformation.

Implications of Digital Transformation for MSEs in West Java

The findings of this study have significant implications for MSEs in West Java and their stakeholders, including MSE owners, policy makers and business support organizations.

First, this study highlights the importance of MSE owners' awareness and understanding of digital transformation. MSE owners need to be aware of the potential benefits of digital technologies and the role they can play in improving business performance. It is important for MSE owners to proactively seek information and support related to digital transformation in order to make informed decisions and effectively implement digital technologies in their operations.

Second, policymakers and business support organizations play an important role in facilitating and supporting digital transformation initiatives among MSEs. They can develop policies and programs that promote digital literacy, provide training and resources on digital technologies, and offer financial incentives to encourage MSEs to adopt digital transformation strategies. In addition, policymakers can build a supportive ecosystem that encourages collaboration between MSEs, technology providers and academia to foster innovation and knowledge sharing.

In addition, MSEs need to realize the importance of continuous learning and upskilling in the digital era. Along with the rapid development of digital technology, MSE owners and employees must be open to acquiring new skills and knowledge in order to effectively utilize digital tools and remain competitive. Training programs and workshops on digital literacy, data analytics, and e-commerce can equip MSEs with the necessary skills to embrace digital transformation and maximize its benefits.

Limitations and Future Research Directions

This study has several limitations that should be considered when interpreting its findings. First, this study focused on MSEs in West Java, and the findings may not be generalizable to other regions or contexts. Future research could explore the adoption of digital transformation in MSEs in different regions or countries to compare and contrast the findings.

Second, this study may have introduced response bias because it depended on MSE owners' self-reported data. Future studies might evaluate the effects of digital transformation on MSE management effectiveness using objective criteria, such as financial performance indicators or operational metrics.

In addition, this study focused on the perspective of MSE owners, and it would be beneficial to include the viewpoints of employees and customers in future research. Understanding employees' and customers' experiences and perceptions of digital transformation can provide a more comprehensive understanding of its impact on MSEs.

In addition, future research could delve deeper into specific aspects of digital transformation, such as cybersecurity measures, data privacy concerns, and the integration of new technologies such as artificial intelligence and blockchain in MSEs.

In conclusion, this study highlights the importance of digital transformation in improving the management efficiency of MSEs in West Java. The findings show that the adoption of digital technology has a positive impact on operational processes, customer engagement, and decision-making capabilities. MSEs that adopt digital transformation are better positioned to increase their competitiveness, improve business performance and seize new growth opportunities. By understanding the implications of digital transformation and addressing the challenges, MSEs in West Java can navigate the digital landscape and thrive in a dynamic business environment.

5. CONCLUSION

In conclusion, this study underscores the importance of digital transformation in improving management efficiency in Micro and Small Enterprises (MSEs) in West Java. The findings show that MSEs in the region have made significant strides in adopting digital technologies, leading to notable improvements in various management processes. The integration of digital tools and systems has simplified supply chain management, optimized inventory control, facilitated data-driven decision-making, and strengthened relationships with customers. The perceived benefits of digital transformation, including increased productivity, cost savings, improved customer satisfaction and enhanced competitiveness, highlight its positive impact on MSEs.

However, this research also highlights the challenges MSEs face in embracing digital transformation, such as limited resources, lack of digital skills, and resistance to change. These challenges require targeted interventions and support from various stakeholders, including government agencies, industry associations and educational institutions. Initiatives should focus on providing resources, training programs and mentoring opportunities to help MSEs overcome these barriers and fully leverage the potential of digital technologies.

The results of this study add to what is already known about how digital transformation affects MSEs, particularly in West Java. This study highlights how MSEs must embrace digital transformation as a strategic imperative in order to increase management effectiveness and maintain their competitiveness in the modern digital world. Further research is encouraged to explore the long-term impact of digital transformation, identify best practices, and develop a comprehensive framework for MSEs to effectively navigate the digital landscape.

By embracing digital transformation and addressing existing challenges, MSEs in West Java can position themselves for sustainable growth, improve competitiveness, and increase resilience in an ever-evolving business landscape.

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