

Digital Transformation and MSME Competitiveness: Strategies for Navigating E-Commerce Competition in the Platform Economy

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ABSTRACT

The development of the platform economy and the rapid growth of e-commerce have significantly transformed the business competition landscape, particularly for Micro, Small, and Medium Enterprises (MSMEs). This condition requires MSMEs to develop digital-based strategies to maintain competitiveness and business sustainability. This study aims to analyze digital-based MSME strategies in facing e-commerce competition in the era of the platform economy. The research employed a qualitative approach using a library research method. Data were collected from reputable journal articles, academic books, government reports, and publications from international organizations relevant to the research topic. Data analysis was conducted through content analysis involving identification, selection, categorization, interpretation, and synthesis of previous research findings. The results indicate that five key strategies contribute to enhancing MSME competitiveness: digital marketing optimization, digital branding enhancement, customer data utilization, digital payment system integration, and product innovation combined with improved customer service quality. The findings reveal that MSME success in responding to e-commerce competition is determined not merely by technology adoption but by the ability to integrate various digital capabilities into sustainable business strategies. This study contributes conceptually by strengthening the relationship between the platform economy, digital transformation, and MSME competitiveness within an integrated analytical framework.

INTRODUCTION

Digital transformation has fundamentally reshaped the global economic landscape, including the sector of Micro, Small, and Medium Enterprises (MSMEs). The rapid advancement of information technology, the internet, and digital platforms has created new business models that enable economic transactions to occur more quickly, efficiently, and without geographical constraints. This phenomenon has given rise to what is known as the

platform economy, an economic system that connects multiple stakeholders through digital platforms to facilitate trade, services, and information exchange in an integrated manner (Kenney & Zysman, 2016). In Indonesia, the growth of the platform economy has accelerated alongside increasing internet penetration and widespread adoption of digital devices. Data from the Indonesian Internet Service Providers Association (APJII, 2024) indicate that national internet penetration has surpassed 79% of the population, providing a crucial foundation for the expansion of the digital economy.

The growth of the platform economy has stimulated the rapid development of the e-commerce sector, which has become one of the primary pillars of digital business activities. According to a report by Google, Temasek, and Bain & Company (2024), Indonesia's digital economy is estimated to exceed USD 90 billion and continues to demonstrate consistent annual growth. This development presents significant opportunities for MSMEs to expand their market reach, increase sales, and improve operational efficiency through the utilization of digital technologies. On the other hand, the expansion of e-commerce has intensified competition, as businesses now compete not only with local firms but also with national and global companies operating on the same digital platforms.

MSMEs play a strategic role in Indonesia's economy. The Ministry of Cooperatives and SMEs of the Republic of Indonesia (2024) reported that MSMEs contribute more than 60% of the national Gross Domestic Product (GDP) and account for approximately 97% of total employment. Such substantial contributions position MSMEs as the backbone of the national economy and a vital instrument for poverty reduction and equitable economic development. Nevertheless, numerous studies indicate that most MSMEs continue to face challenges in optimally adopting digital technologies, particularly in digital marketing, customer data management, technology-based financial management, and the effective utilization of e-commerce platforms (Arianto, 2024; Wahyuni et al., 2023).

Competition within the e-commerce ecosystem is determined not only by product quality and pricing but also by a firm's ability to leverage digital technologies as a source of competitive advantage. Digital platforms provide various features, including customer analytics, electronic payment systems, product search optimization, and integrated logistics services, all of which can enhance business competitiveness. According to Verhoef et al. (2021), digital transformation has become a critical factor in ensuring business sustainability in the digital economy because it enables organizations to respond to market changes more adaptively and innovatively. Consequently, MSMEs are required to develop digital-based business strategies capable of addressing increasingly complex competitive challenges.

Amid intensifying digital competition, consumer behavior has also undergone significant changes. Modern consumers increasingly rely on digital platforms to search for product information, compare prices, read customer reviews, and conduct online transactions. This phenomenon indicates that purchasing decisions are becoming increasingly influenced by the quality of the digital experience provided by businesses (Kotler et al., 2022). As a result, MSMEs that continue to depend primarily on conventional marketing strategies risk losing market share due to their inability to meet the expectations

of increasingly digital-oriented consumers. This situation necessitates the integration of digital technologies into all aspects of business operations.

Several previous studies have demonstrated that digital technology adoption positively affects MSME performance. Dwivedi et al. (2023) found that the use of social media, e-commerce platforms, and data-driven technologies can improve market reach, operational efficiency, and business innovation capabilities. Similarly, Nuseir et al. (2024) reported that digital transformation is significantly associated with enhanced competitiveness and sustainability among small businesses in developing countries. These findings suggest that digitalization is no longer an option but a strategic necessity for MSMEs seeking to maintain their existence in increasingly competitive markets.

Despite its benefits, the digital transformation process among MSMEs is accompanied by numerous challenges. Limited human resources, low levels of digital literacy, insufficient investment capital for technology adoption, and inadequate understanding of digital marketing strategies remain major barriers to MSME digitalization (OECD, 2024). Furthermore, changes in digital platform algorithms and the growing dominance of large corporations within the e-commerce ecosystem often create competitiveness gaps between MSMEs and larger enterprises. These conditions indicate that successful digitalization depends not only on technology adoption but also on MSMEs' ability to design strategies that align with the characteristics of the digital marketplace.

From the perspective of competitive advantage theory, digital strategy can be understood as an organization's effort to create added value through the utilization of technological resources that are difficult for competitors to imitate (Porter, 1985; Bharadwaj et al., 2013). Such strategies include developing a digital brand identity, optimizing social media utilization, leveraging online marketplaces, implementing customer relationship management (CRM) systems, and integrating digital payment technologies. Through these approaches, MSMEs can focus not only on increasing short-term sales but also on building long-term customer relationships and strengthening their competitive position in digital markets.

Research on MSME digitalization has grown substantially in recent years. However, most previous studies have focused on the effects of technology adoption on business performance or on factors influencing the acceptance of digital technologies. Studies specifically examining digital-based MSME strategies for addressing e-commerce competition within the context of the platform economy remain relatively limited, particularly from an integrative perspective that connects technological capabilities, digital marketing, competitiveness, and business sustainability. This research gap highlights the need for a more comprehensive examination of effective digital strategies for MSMEs.

Moreover, the rapid evolution of the platform economy means that business strategies that were effective in the past may no longer be relevant today. The emergence of artificial intelligence (AI), data analytics, social commerce, live shopping, and the integration of multiple digital platforms has significantly transformed competitive business dynamics (Huang & Rust, 2024). Therefore, a deeper understanding is needed regarding the strategies

that MSMEs can adopt to adapt to the changing digital business environment while enhancing their competitiveness amid the growing dominance of e-commerce platforms.

Based on the foregoing discussion, this study aims to analyze digital-based strategies employed by MSMEs in responding to e-commerce competition in the era of the platform economy. This study is expected to contribute theoretically to the growing body of literature on MSME digital transformation while also providing practical recommendations for business actors, policymakers, and other stakeholders in formulating strategies to strengthen MSME competitiveness in an increasingly competitive digital economy.

LITERATURE REVIEW

Platform Economy and MSME Business Transformation

The advancement of digital technology has given rise to the **platform economy**, an economic system that connects various economic actors through digital platforms to facilitate transactions, information exchange, and business collaboration more efficiently (Kenney & Zysman, 2016). Within the platform economy, companies function not only as producers of goods and services but also as providers of digital infrastructure that links buyers and sellers within a unified ecosystem. The emergence of platforms such as Shopee, Tokopedia, TikTok Shop, Lazada, and numerous other digital marketplaces has transformed business interactions and created new opportunities for Micro, Small, and Medium Enterprises (MSMEs) to access broader markets without geographical limitations.

The transition toward a platform economy has encouraged MSMEs to shift from conventional business models to digitally driven operations. According to the OECD (2024), digitalization enables MSMEs to improve operational efficiency, expand market access, and strengthen customer relationships through the effective utilization of information technology. At the same time, the platform economy intensifies competition, as businesses must compete directly with thousands or even millions of sellers offering similar products on the same platforms. Therefore, the ability of MSMEs to adopt and implement digital strategies has become a crucial factor in ensuring business sustainability and creating competitive advantages.

Digital Strategy as a Source of Competitive Advantage

From the perspective of the **Resource-Based View (RBV)**, competitive advantage can be achieved through the utilization of valuable, rare, inimitable, and non-substitutable resources (Barney, 1991). In the digital era, these resources extend beyond physical assets to include technological capabilities, data management, digital innovation, and human resource competencies in utilizing information technology. Bharadwaj et al. (2013) argue that digital strategy represents the integration of business strategy and digital technology to create sustainable value.

For MSMEs, digital strategies can be implemented through various approaches, including the use of social media for promotion, marketplace optimization, the adoption of digital payment systems, technology-based customer relationship management (CRM), and

the utilization of data analytics to better understand consumer behavior. Verhoef et al. (2021) found that integrated digital transformation enhances organizational flexibility, accelerates decision-making processes, and strengthens business competitiveness in dynamic business environments. Consequently, digital strategy has become an essential instrument for MSMEs seeking to compete effectively in the platform economy.

E-Commerce Competition and MSME Adaptation

The rapid growth of e-commerce has significantly transformed consumer behavior and market competition mechanisms. Consumers increasingly rely on digital platforms to search for product information, compare prices, read customer reviews, and conduct online transactions. According to Kotler et al. (2022), changes in digital consumer behavior require businesses not only to offer high-quality products but also to provide customer experiences that are fast, convenient, and personalized.

Numerous studies indicate that the success of MSMEs in facing e-commerce competition is strongly influenced by the level of digital technology adoption. Nuseir et al. (2024) found that MSMEs integrating digital marketing, business information systems, and modern communication technologies achieve higher growth rates than those relying primarily on conventional strategies. Likewise, Dwivedi et al. (2023) emphasized that digital technologies enable small businesses to increase market visibility, expand customer networks, and build consumer loyalty more effectively.

Based on the literature reviewed, it can be concluded that digital-based MSME strategies in the platform economy extend beyond the mere adoption of technology. They also involve the ability to integrate technology with marketing strategies, customer relationship management, product innovation, and business model development. The combination of these strategies plays a critical role in enhancing MSME competitiveness amid increasingly complex and dynamic e-commerce competition.

METHOD

This study employs a qualitative approach using the library research method. This approach was selected because the research focuses on analyzing digital-based MSME strategies for addressing e-commerce competition in the era of the platform economy through the synthesis and interpretation of previous studies, official reports, and relevant academic documents. Library research enables researchers to gain a comprehensive understanding of MSME digitalization, the dynamics of the platform economy, and strategic approaches that can enhance business competitiveness in an evolving digital environment.

The study utilizes secondary data obtained from reputable national and international journal articles, academic books, conference proceedings, government reports, international organizational publications, and research institution reports related to MSMEs, digital transformation, e-commerce, and the platform economy. Sources were selected based on their relevance, credibility, and recency, with priority given to publications released between 2020 and 2025 to ensure alignment with current developments in the digital economy.

Data collection was conducted through literature searches in scientific databases such as Scopus, ScienceDirect, SpringerLink, Taylor & Francis, Emerald Insight, and Google Scholar. Additional sources included official publications from the OECD, the World Bank, the Ministry of Cooperatives and SMEs of the Republic of Indonesia, APJII, and digital economy reports published by Google, Temasek, and Bain & Company. The keywords used in the search process included digital strategy, digital transformation, MSMEs, SMEs, e-commerce competition, platform economy, digital marketing, and business competitiveness.

The collected data were analyzed using the content analysis technique. The analytical process involved several stages: identifying relevant literature, selecting and evaluating sources based on their relevance to the research topic, categorizing findings into major themes, interpreting the results, and developing a conceptual synthesis of digital-based MSME strategies for addressing e-commerce competition. Through this process, findings from previous studies were compared, critically evaluated, and integrated to generate a more comprehensive understanding of effective digital strategies for MSMEs.

To ensure validity and credibility, source triangulation was applied by comparing information obtained from different types of literature and institutions. Furthermore, transparency was maintained throughout the selection and analysis process by prioritizing academically reputable sources that had undergone peer review. Through this approach, the study aims to provide an objective and scientifically reliable understanding of digital-based MSME strategies in the platform economy era.

In summary, the research process began with identifying issues related to MSME competition within the e-commerce ecosystem, followed by the collection of relevant literature, source selection and evaluation, content analysis of key findings, conceptual synthesis development, and the formulation of conclusions regarding digital strategies that can enhance MSME competitiveness and business sustainability in the platform economy. As a result, this study offers a systematic, transparent, and evidence-based examination of contemporary digital strategies for MSMEs.

RESULTS

Digital-Based MSME Strategies for Facing E-Commerce Competition in the Platform Economy Era

The analysis of the literature reveals that the development of the platform economy has fundamentally transformed the nature of business competition. While business competitiveness was previously determined largely by business location, physical capital, and conventional distribution networks, competitiveness in the platform economy era is increasingly influenced by firms' ability to leverage digital technologies. E-commerce platforms such as Shopee, Tokopedia, TikTok Shop, Lazada, and many others have created an open and highly competitive marketplace, requiring Micro, Small, and Medium Enterprises (MSMEs) to adapt to these changes in order to survive and grow.

The findings indicate that several key strategies are commonly adopted by MSMEs that successfully maintain their competitiveness amid e-commerce competition. These

strategies include digital marketing optimization, strengthening brand identity through digital branding, utilizing customer data, integrating digital payment systems, improving customer service quality, and fostering product innovation based on market needs. These strategies do not operate independently; rather, they complement one another in building sustainable competitive advantages.

Digital Marketing Optimization as a Market Expansion Instrument

One of the most dominant strategies for addressing e-commerce competition is the optimization of digital marketing. Numerous studies indicate that social media, online marketplaces, and search engines have become effective marketing channels for increasing product visibility and expanding MSMEs' market reach. Through digital platforms, businesses can reach consumers across different regions at relatively lower promotional costs compared to conventional marketing methods.

Digital marketing serves not only as a promotional tool but also as a medium for establishing two-way communication with consumers. Through features such as comments, direct messages, product reviews, and live streaming, MSMEs can understand customer needs more quickly and respond more effectively. The rapid growth of social commerce in recent years demonstrates that social interaction has become a significant factor influencing consumer purchasing decisions. Therefore, the success of digital marketing depends not only on the frequency of promotional activities but also on the ability of businesses to build meaningful customer engagement.

Furthermore, the use of creative content plays a critical role in enhancing the effectiveness of digital marketing. Content such as short videos, customer testimonials, product education materials, and stories about the production process has proven effective in increasing consumer trust. Within the platform economy, consumers tend to prefer products that provide comprehensive information, positive reviews, and consistent digital activity.

Strengthening Digital Branding to Enhance Consumer Trust

The increasingly intense competition on e-commerce platforms often results in MSMEs offering products with relatively similar characteristics. Under such circumstances, brand identity becomes a crucial differentiating factor. The literature suggests that MSMEs with strong digital branding strategies are more likely to attract consumer attention than businesses that compete solely on price.

Digital branding encompasses the management of visual identity, consistency in marketing messages, digital reputation, and customer experiences when interacting with products and services. Trust is a critical determinant of success in digital transactions because consumers cannot physically inspect products before making a purchase. Consequently, store reputation, product ratings, positive reviews, and seller responsiveness have become essential components of digital brand-building strategies.

Recent studies indicate that modern consumers are more likely to choose brands capable of creating emotional connections and delivering positive digital experiences.

Therefore, MSMEs must develop unique and consistent brand identities to compete effectively with other products available on the same platforms.

Utilizing Customer Data for Business Decision-Making

Advances in digital technology enable MSMEs to obtain valuable information about customer behavior more easily than ever before. E-commerce platforms and social media provide data that can be used to understand consumer preferences, market trends, purchasing patterns, and the effectiveness of marketing strategies.

The literature analysis demonstrates that MSMEs that systematically utilize customer data are better equipped to formulate effective business strategies. Such data can be used to identify popular products, determine optimal promotional timing, adjust pricing according to market conditions, and develop new products that align with consumer demands.

Data-driven decision-making also helps MSMEs reduce business uncertainty. Decisions that were previously based solely on intuition can now be supported by objective and measurable information. In the long term, the ability to leverage data becomes a source of competitive advantage that is difficult for competitors to replicate because it reflects an organization's capability to manage knowledge and market intelligence effectively.

Digital Payment Integration and Transaction Efficiency

Another important strategy for enhancing MSME competitiveness is the integration of digital payment systems. The development of financial technology (*fintech*) has introduced payment methods that are faster, safer, and more convenient. Digital wallets, automated bank transfers, QRIS codes, and other electronic payment services have significantly transformed consumer transaction behavior.

For MSMEs, digital payment systems not only improve customer convenience but also accelerate transaction processing and financial record-keeping. Digitally recorded transactions facilitate sales monitoring, cash flow management, and business performance evaluation. In addition, digital payment integration promotes greater transparency and accountability in financial management.

In the platform economy era, transaction convenience has become one of the key factors influencing consumer purchasing decisions. Therefore, MSMEs that offer multiple digital payment options are more likely to achieve higher conversion rates than businesses that continue to rely primarily on traditional payment methods.

Product Innovation and Adaptation to Market Changes

The literature also highlights product innovation as a critical factor in sustaining MSME competitiveness. The openness of e-commerce markets means that successful products can be quickly imitated by competitors. Consequently, continuous innovation is essential for ensuring long-term business sustainability.

Innovation does not necessarily involve creating entirely new products. It may include improvements in design, quality enhancement, feature additions, packaging upgrades, or adjustments to align with emerging market trends. Digital technologies enable MSMEs to

access real-time market information, allowing innovation processes to be conducted more quickly and accurately.

The ability to adapt to changing consumer trends is one of the defining characteristics of successful MSMEs in the platform economy. Businesses that respond proactively to evolving market demands are generally better positioned to maintain customer loyalty and enhance long-term competitiveness.

Strengthening Customer Service as a Customer Retention Strategy

E-commerce competition is not solely focused on acquiring new customers but also on retaining existing ones. Therefore, customer service quality has become a crucial determinant of MSME success in digital business environments.

Fast, responsive, and solution-oriented customer service enhances customer satisfaction and trust. Numerous studies indicate that positive customer experiences contribute significantly to customer loyalty and repeat purchase intentions. Within digital platforms, customer loyalty has strategic value because it often generates positive reviews that influence prospective buyers.

The use of technologies such as chat automation, social media-based customer support, and Customer Relationship Management (CRM) systems can help MSMEs improve service quality more efficiently. As a result, customer service is no longer viewed merely as a supporting function but as an integral component of MSMEs' competitive strategies.

Synthesis of MSME Strategies in the Platform Economy Era

Based on the literature review, digital-based MSME strategies for addressing e-commerce competition in the platform economy era can be summarized in Table 1.

Table 1. Digital-Based MSME Strategies for Facing E-Commerce Competition

Strategy	Forms of Implementation	Main Impact
Digital Marketing	Social media, marketplaces, SEO, live streaming	Market expansion and increased product visibility
Digital Branding	Brand identity development, digital reputation management	Enhanced consumer trust
Data Utilization	Customer behavior and market trend analysis	More accurate decision-making
Digital Payments	QRIS, e-wallets, mobile banking	Transaction efficiency and payment convenience
Product Innovation	Development of product design, quality, and variations	Increased product competitiveness
Customer Service	CRM systems, responsive support, review management	Customer loyalty and retention

The findings of this study indicate that MSME success in facing e-commerce competition is not determined by the adoption of a single technology. Rather, it depends on

the ability to integrate multiple digital strategies simultaneously. The greater the level of integration among digital strategies, the higher the likelihood that MSMEs will enhance their competitiveness, expand market reach, and sustain business growth amid the evolving dynamics of the platform economy. Therefore, digital transformation should be understood as a comprehensive and continuous business strategy rather than merely the adoption of technology in operational activities.

DISCUSSION

The findings of this study indicate that digital strategy has become a key factor determining the ability of Micro, Small, and Medium Enterprises (MSMEs) to compete in the e-commerce environment within the platform economy era. These findings suggest that digital transformation is no longer merely a strategic option but an unavoidable necessity for MSMEs. Changes in market structures driven by the growth of digital platforms have shifted the sources of competitive advantage from physical assets toward digital assets, information, and technological adaptability. This condition aligns with the view of Bharadwaj et al. (2013), who argue that modern business strategies are increasingly integrated with digital technologies, making the distinction between organizational strategy and technology strategy increasingly blurred. In the context of MSMEs, business success is no longer determined solely by product quality but also by the ability to effectively manage the digital ecosystem.

One of the most significant findings of this study is the role of digital marketing as a primary instrument for expanding market access. Prior to the emergence of the platform economy, limited capital and distribution networks often represented major obstacles for MSMEs seeking to reach broader consumer markets. However, the emergence of digital platforms has reduced many of these barriers by providing relatively open marketing spaces for all business actors. This finding supports the study by Verhoef et al. (2021), which emphasizes that digitalization enables organizations to enhance their ability to reach customers more extensively and efficiently. In practice, social media, online marketplaces, and live commerce features have become essential tools that allow MSMEs to communicate directly with consumers while increasing product visibility in digital markets.

Nevertheless, this study also demonstrates that merely being present on digital platforms is insufficient to create a sustainable competitive advantage. The highly open nature of digital competition allows thousands of products with similar characteristics to coexist on the same platform. Consequently, differentiation becomes a critical factor. From the perspective of Porter's (1985) competitive advantage theory, firms must create unique value that distinguishes them from competitors. In the platform economy era, such differentiation is achieved not only through product quality but also through the digital experience delivered to consumers. In other words, MSMEs that successfully combine product excellence with superior customer experiences are more likely to gain a competitive edge in the marketplace.

The findings regarding the importance of digital branding further reinforce the argument that trust is a fundamental asset in digital transactions. Unlike conventional

transactions, where consumers can directly inspect and evaluate products, e-commerce transactions rely heavily on available digital information. Therefore, store reputation, customer reviews, seller responsiveness, and brand identity consistency become critical indicators influencing purchasing decisions. This finding is consistent with the concept of a trust-based economy, which suggests that trust serves as the foundation for building economic relationships within digital environments (Kotler et al., 2022). The greater the level of trust consumers place in a brand, the higher the likelihood of repeat purchases and long-term customer loyalty.

The study also reveals that the utilization of customer data is one of the defining characteristics of MSMEs that successfully adapt to competition in the platform economy. In the digital economy, data has evolved into a strategic resource with substantial economic value. Information regarding consumer behavior, product preferences, purchasing patterns, and responses to promotional activities can be used to make more informed business decisions. This finding supports the concept of data-driven decision-making, which positions data as the primary foundation for organizational strategy development. The ability to process and utilize data enables MSMEs to understand market needs more accurately than approaches that rely solely on intuition or past experience.

Furthermore, the results indicate that the integration of digital payment systems contributes significantly to operational efficiency and service quality improvement. The convenience of payment methods such as QRIS, digital wallets, and various fintech services has transformed consumer expectations regarding transaction processes. Modern consumers increasingly prefer sellers who offer payment methods that are fast, secure, and flexible. This phenomenon demonstrates that digital transformation extends beyond marketing activities and also encompasses financial and operational systems. From the perspective of technological innovation, the adoption of digital payment systems reflects MSMEs' ability to adapt to changing consumer behavior while simultaneously improving business management effectiveness.

Beyond technological aspects, this study finds that product innovation remains an indispensable component of digital strategy. Although digital technologies can expand market access and improve operational efficiency, long-term business sustainability ultimately depends on the ability to deliver products that meet consumer needs. These findings suggest that digital transformation cannot replace the importance of product innovation; rather, it functions as a tool that accelerates market need identification and product development processes. Consequently, successful MSMEs are those capable of combining continuous product innovation with the effective utilization of digital technologies.

This study also reveals that customer service quality has become increasingly important within the e-commerce environment. Intense digital competition provides consumers with numerous alternatives, making customer experience a crucial factor in purchasing decisions. Responsive, efficient, and professional customer service not only enhances customer satisfaction but also contributes to the development of a positive business

image. In the platform economy, customer reviews and store ratings frequently serve as primary references for prospective buyers before making purchasing decisions. Therefore, customer service quality has implications that extend far beyond the resolution of customer complaints.

From a theoretical perspective, the findings reinforce the relevance of the Resource-Based View (RBV) in explaining MSME competitiveness in the platform economy era. Digital resources such as technological capabilities, data management competencies, digital innovation, and skilled human resources have proven to be critical factors in creating competitive advantages that are difficult for competitors to imitate. These advantages stem not merely from the possession of technology but from the ability to integrate technology effectively into business processes. Consequently, MSME competitiveness in the platform economy is determined more by the quality of digital capabilities than by the scale of physical resources owned by the firm.

The findings also carry important practical implications for governments and other stakeholders. Efforts to enhance MSME competitiveness should not focus solely on providing financial support but should also include initiatives aimed at strengthening digital capabilities, improving technological literacy, offering digital marketing training, and developing supportive ecosystems for digital transformation. Governments must ensure that MSMEs have adequate access to digital infrastructure, financial technologies, and digital education to enable meaningful participation in the platform economy. Without such support, the digital divide between MSMEs and large corporations may continue to widen.

Overall, this discussion demonstrates that digital-based MSME strategies represent a combination of technology utilization, brand strengthening, data management, product innovation, and customer service enhancement. MSME success in addressing e-commerce competition is not determined by any single factor but rather by the ability to integrate all these elements into an adaptive and sustainable business strategy. In an increasingly competitive platform economy, MSMEs that successfully develop comprehensive digital capabilities will be better positioned to strengthen their competitiveness, expand their market share, and achieve long-term business sustainability.

CONCLUSION

This study demonstrates that the development of the platform economy has transformed the competitive landscape of Micro, Small, and Medium Enterprises (MSMEs) from one primarily based on physical resources to one increasingly driven by digital capabilities. In responding to increasingly intense e-commerce competition, MSMEs are required not only to establish a presence on digital platforms but also to comprehensively integrate various digital strategies into their business operations. The findings identify five key strategies that play a significant role in enhancing MSME competitiveness: digital marketing optimization, digital branding enhancement, the utilization of customer data for decision-making, the integration of digital payment systems, and product innovation combined with improvements in customer service quality. The combination of these

strategies has proven to be crucial for expanding market reach, increasing consumer trust, strengthening customer loyalty, and ensuring business sustainability in the platform economy era.

From a theoretical perspective, this study contributes to the growing body of literature on MSME digital transformation by providing a synthesis that integrates the concepts of the platform economy, e-commerce competition, and digital-based MSME strategies into a unified analytical framework. Unlike many previous studies that have examined MSME digitalization in a fragmented manner, this research demonstrates that MSME success is determined by the ability to integrate multiple digital capabilities as a source of sustainable competitive advantage.

The novelty of this study lies in the development of a strategic perspective that positions the platform economy as the primary context for understanding MSME competitiveness. The study emphasizes that digital strategies no longer function merely as operational support tools; rather, they have evolved into the fundamental foundation for building competitive advantage in the digital economy era. These findings are expected to serve as a valuable reference for MSME practitioners, policymakers, and other stakeholders in designing more effective, adaptive, and sustainable policies and programs to strengthen digital transformation initiatives.

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