


MSME Digitalization Strategy in Makassar City: Efforts to Increase Competitiveness in the Digital Economy Era

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Article Info	ABSTRACT
<p>Keywords: MSMEs, Digitization, Makassar City, Business Strategy, Competitiveness.</p>	<p>Micro, Small, and Medium Enterprises (MSMEs) are the backbone of the national and regional economy, including in Makassar City. However, many MSME actors face obstacles in adopting digital technology due to limited literacy, inadequate access, and high costs. This condition hurts the competitiveness of products and services in the midst of global competition. This research aims to formulate a relevant and applicable MSME digitalization strategy to increase competitiveness in the digital economy era. A mixed-methods approach was employed, comprising a survey of 30 MSME actors, as well as in-depth interviews and Focus Group Discussions (FGDs) with local stakeholders. Data analysis was conducted descriptively and qualitatively using the Miles & Huberman approach, as well as a SWOT analysis, to identify the strengths, weaknesses, opportunities, and threats faced. The results of the study indicate that the digitization of MSMEs in Makassar is still in its early stages, with a predominance of social media use for marketing, but lagging in digital management and the adoption of financial applications. Key barriers include limited digital skills, transformation costs, and suboptimal ecosystem support. The recommended strategies include increasing digital literacy, collaboration with technology providers, and supporting local government policies. This research is expected to serve as the basis for formulating policies and strategic models for the digitalization of MSMEs, which can be replicated in other regions of Indonesia.</p>
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INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are an important pillar in Indonesia's national economic structure. Its contribution is not only evident in the high absorption of labor, but also in its role in creating economic added value in various sectors. In Makassar City, MSMEs are the backbone of the local economy, supporting people's lives, especially in the trade, culinary, creative services, and household industry sectors. According to data from the Makassar City Cooperatives and SMEs Office, the MSME sector absorbs more than 60% of the productive workforce and contributes significantly to the Gross Regional Domestic Product (GDP) (Dewi et al., 2023; Tambunan, 2020). However, amidst the rapid flow of

globalization and digital transformation, most MSME actors in Makassar face significant challenges in adapting to digital technology as a primary tool for enhancing competitiveness.

The digital economy era has fundamentally changed the business landscape. Trade activities are no longer limited by space and time, but are determined by the ability of business actors to utilize information technology. Digital platforms, including social media, e-commerce, and electronic payment systems, present significant opportunities for MSMEs to expand their market, strengthen their brand image, and enhance operational efficiency (Sarma et al., 2022; Tama et al., 2022). Nevertheless, the digital divide remains a significant problem in many regions, including Makassar. Many MSME actors have been unable to fully leverage the potential of digitalization due to limited access to technology, low digital literacy, and inadequate infrastructure support.

Digital transformation for MSMEs is no longer an option, but an urgent necessity for survival in an increasingly competitive landscape. The COVID-19 pandemic has accelerated digital adoption across various sectors, but it has also highlighted the gap between businesses that are ready and those that are still lagging behind digitally (Alfarizi et al., 2024; Nastia, 2024). MSME actors who utilize technology, such as online marketing and digital payment systems, have proven to be more resilient in the face of economic crises than those who still rely on conventional methods. Therefore, the digitalization of MSMEs in Makassar should be viewed as an adaptive strategy to foster sustainable local economic resilience.

The central and regional governments have launched various programs to accelerate the digitization of MSMEs, including the National Movement Proud of Made in Indonesia (Gerakan BBI), MSMEs Go Digital, and e-commerce training initiatives. However, the program's effectiveness is still not optimal due to the lack of a local, needs-based approach. Many business actors in Makassar lack the capacity to implement the training results in their business practices consistently. In addition, the support of financial institutions and technology service providers has also not been well integrated with the real needs of MSME actors at the grassroots level (Riwu & Mattunruang, 2024; Utama et al., 2024).

The main problems faced by MSMEs in the digitalization process include low levels of digital literacy, limited human resources, lack of access to digital-based capital, and weak data-oriented business strategies. This condition is exacerbated by the lack of synergy among stakeholders, including local governments, educational institutions, the business community, and digital platforms. On the other hand, MSME actors in Makassar have great potential because most of the business actors come from the younger generation, who are relatively open to technological innovation, which allows the formation of an adaptive digital ecosystem if supported by the right strategy (Afkar & Yusmaneli, 2023; Hidayat et al., 2024).

Several previous studies have emphasized the importance of digitalization in enhancing the competitiveness of MSMEs in Indonesia. However, most of those studies remain macro in scope and do not account for unique local contexts. In Makassar City, the problem of digitizing MSMEs has its own complexity, both in terms of social, economic, and business culture. Therefore, a more contextual empirical study is needed to understand the factors influencing the adoption of digitalization at the local level, as well as to formulate

effective strategies in accordance with the characteristics of business actors in this area (Sari, 2024; Surya et al., 2020; Yusuf et al., 2022).

In this context, digitalization is not only interpreted as the application of technology, but also the transformation of business management mindsets and strategies. The success of digitalization depends on the ability of MSMEs to integrate technology into all aspects of their business, from production and marketing to customer service. The approach used in this study combines quantitative and qualitative methods (mixed-methods) to provide a comprehensive understanding of the actual conditions, obstacles, and opportunities for the digitization of MSMEs in Makassar City. SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis is used to formulate relevant and sustainable digitalization strategies.

Based on this background, this study aims to (1) map the conditions and level of adoption of MSME digitalization in Makassar City, (2) identify inhibiting and supporting factors in the digitalization process, and (3) formulate digitalization strategies that can be applied to increase the competitiveness of MSMEs sustainably. This research is expected to make a significant contribution to the development of a local needs-based digitalization strategy model, as well as serve as a reference for local governments and related institutions in designing policies to strengthen the digital economy at the city level.

RESEARCH METHODS

This study employs a mixed-methods approach that combines quantitative and qualitative methods. The selection of this method is based on the need to obtain a comprehensive understanding of the current state of MSME digitalization in Makassar City. The quantitative approach is used to measure the extent to which MSME actors have adopted digital technology in their business activities. In contrast, the qualitative approach is employed to explore the social, cultural, and institutional factors that influence the success of digitalization. Through the combination of these two approaches, the research is expected to be able to present a comprehensive understanding, not only in terms of numbers and statistical data, but also from the narrative and contextual aspects that occur in the field (Acharya et al., 2022; Wagner et al., 2024; Yan et al., 2023).

The quantitative approach was conducted through a survey of 30 MSME actors across various business sectors, including food and beverages, fashion, handicrafts, and services. The research instrument in the form of a questionnaire was prepared based on MSME digitalization indicators adapted from the national policy on digital transformation and the findings of previous research. These indicators encompass aspects of technology use in production, marketing, transactions, and financial management. The quantitative data obtained were analyzed statistically to identify the level of adoption of digital technology, the frequency of use of social media, cashier applications, marketplaces, and forms of digital training that business actors have participated in.

The qualitative approach was conducted through in-depth interviews with five MSME actors, who were selected purposively based on the variety of business sectors and different levels of digitalization. In addition, a Focus Group Discussion (FGD) was held involving

relevant stakeholders, such as the Makassar City Cooperatives and SMEs Office, the local business community, and technology service providers. This approach aims to understand the perception of business actors towards digital technology, the internal and external obstacles they face, and the effectiveness of the mentoring programs implemented by the government and partner institutions.

Qualitative data are analyzed using the Miles & Huberman model, which includes three main stages: data reduction, data presentation, and conclusion drawn. The reduction process involves sorting data relevant to the research objective, which is then presented in the form of a thematic matrix to facilitate interpretation. From the results of this analysis, a mapping of the main obstacles to digitalization was obtained, such as the limitation of digital literacy, the lack of infrastructure support, and low trust in digital platforms. This analysis also reveals the potential for synergy between MSME actors and the local digital ecosystem that is developing in Makassar.

All the results of the two approaches are then integrated through SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis. This analysis is used to identify the internal strengths of MSMEs that can be optimized, weaknesses that need to be overcome, external opportunities that can be exploited, and threats that need to be anticipated. The results of the SWOT analysis serve as the basis for formulating a contextual and applicable model for the MSME digitalization strategy. With this approach, the resulting strategies are not only theoretical but can be implemented by business actors and stakeholders at the regional level (Mühlburger & Krumay, 2024; Rupeika-Apoga & Petrovska, 2022).

This research is designed to be carried out for 6 months (June-December 2025) with five main stages: (1) *preparation and literature study* which includes the preparation of research instruments; (2) *collection of field data* through surveys, interviews, and FGDs; (3) *quantitative and qualitative data analysis*; (4) *formulation and validation of digitalization strategies* by involving experts and practitioners; and (5) *reporting and dissemination of research results* in the form of journal articles, final reports, and seminar posters. Each stage of research has clear outputs and achievement indicators, and has been adjusted to the research budget allocation as stated in the Cost Budget Plan (RAB). Thus, this research method ensures integration between scientific validity, implementation effectiveness, and financing efficiency.

RESULTS AND DISCUSSION

Respondent Description

This research involved 30 MSME actors from various sub-districts in Makassar City, including Panakkukang, Tamalanrea, Biringkanaya, Mariso, and Ujung Pandang. The selection of respondents was conducted using purposive sampling, taking into account variations in business sectors and different levels of digitalization adoption. Most respondents are micro-business actors with a workforce of 1-5 people and an annual turnover of less than IDR 300 million, while some are classified as small businesses with a workforce of 6-19 people.

In terms of the business sector, the majority of respondents are engaged in the culinary sector, followed by fashion, creative services, handicrafts, and general trade. This reflects the dominance of the consumption and services-based sectors in Makassar's local economic structure. Meanwhile, based on age, respondents were predominantly from the productive age group between 25 and 40 years old, indicating that MSME actors are relatively adaptable to technological changes.

In terms of education, most respondents were high school and college graduates, indicating potential for increasing digital literacy through structured training. In terms of business experience, 60% of respondents have been running their businesses for more than 5 years, while the rest are new business actors who have started growing after the COVID-19 pandemic. In general, the composition of respondents reflects the diversity of sectors and business characteristics, providing a representative picture of the condition of MSMEs in Makassar City.

Table 1. Profile of Makassar City MSME Research Respondents

Characteristic	Category	Number (people)	Percentage (%)
Type of Business	Culinary	12	40.0
	Fashion	7	23.3
	Creative Services	5	16.7
	Handicrafts	4	13.3
	General Trading	2	6.7
Scale of Efforts	Micro (turnover < IDR 300 million/year)	21	70.0
	Small (IDR 300 million–2.5 billion/year)	9	30.0
Age of Business Actors	20–24 years old	4	13.3
	25–40 years	19	63.3
	>40 years old	7	23.3
Final Education	High School/Vocational School	14	46.7
	Diploma	6	20.0
	S1	9	30.0
	S2	1	3.3
Long Running Business	< 3 years	6	20.0
	3–5 years	6	20.0
	>5 years	18	60.0
Domisili District	Squirrelly	8	26.7
	Tamalanrea	7	23.3
	Biringkanaya	6	20.0
	Mariso	5	16.7
	End of View	4	13.3

Source: Primary Data, 2025

Description of the Results of the MSME Digitalization Survey in Makassar City

The results of a survey of 30 MSME actors indicate that the adoption rate of digital technology in Makassar City remains at the development stage. Most business actors have utilized social media (73%) such as Instagram, WhatsApp Business, and TikTok for customer promotion and communication. However, only 35% of MSME actors have used e-commerce platforms such as Shopee, Tokopedia, and Blibli for buying and selling transactions. Meanwhile, 68% of respondents have used digital payment systems (QRIS, OVO, GoPay, or Dana), indicating a significant shift towards non-cash transactions. However, the use of technology for financial management, market analysis, and business automation remains minimal, with only 27% of business actors utilizing simple digital accounting applications, such as BukuKas or Moota.

Social media is the most dominant means of digital marketing for MSMEs in Makassar. The majority of businesses (70%) use Instagram and WhatsApp Business as their primary promotional channels, while 20% leverage TikTok and Facebook to reach a broader market segment. The use of marketplaces is still low because some MSME actors consider the administrative process complicated and require a higher time commitment to manage orders and customer reviews. From in-depth interviews, it was revealed that most business actors rely on organic promotion strategies, such as daily posts, testimonial content, and live selling on social media.

Most respondents stated that the use of digital media has a positive impact on increasing product visibility and sales. Around 64% of respondents reported an increase in turnover after actively using social media, especially culinary and fashion business actors. However, most businesses still struggle to measure the effectiveness of digital strategies because they lack a good understanding of customer data analytics. Digitalization is also considered to enhance operational efficiency, particularly in transaction recording, stock management, and customer relations, although its application is still limited to business actors with higher technology literacy.

The level of digital literacy among MSME actors in Makassar remains relatively low. As many as 56% of respondents have never participated in digitalization training, whether organized by the government, educational institutions, or the business community. Only 22% have ever taken e-commerce or social media management training. From the results of the FGD, business actors stated that the main obstacles in improving digital literacy are time limitations, training costs, and lack of ongoing mentoring. As a result, most MSME actors have not been able to develop a systematic digital marketing strategy and still rely on a trial-and-error approach.

The biggest obstacles faced by MSMEs in the digitalization process can be categorized into four main areas. First, human resource barriers, such as low technical capabilities and limited special personnel handling digital activities. Second, financial barriers, where the cost of digital transformation (professional content creation, paid advertising, and tech equipment) is still considered expensive. Third, infrastructure barriers, especially uneven internet access in several areas of Makassar's suburbs. Fourth,

psychological and business culture barriers exist, as some business actors remain skeptical about the effectiveness of online systems and prefer direct interaction with customers.

Despite facing various limitations, the ecosystem supporting digitalization in Makassar shows positive developments. Significant support has come from the business community and digital incubators such as Makassar Digital Valley, the South Sulawesi Digital MSME Forum, and Indonesian Young Entrepreneurs (Wimnus), who are actively providing free training on digital marketing and content management. Local governments also play a role through the MSME Go Online program and partnerships with national e-commerce platforms. However, cross-sector collaboration still needs to be strengthened so that the digitalization program is more targeted and sustainable.

In general, MSME actors in Makassar have a positive perception of digitalization. As many as 83% of respondents stated that digital technology is important for their business development. However, only 37% feel that they are quite ready to carry out a comprehensive digital transformation. Business actors who have experienced the benefits of digitalization tend to be more confident and plan to increase their digital investment. In contrast, those who have not experienced a significant impact remain cautious. This indicates a pressing need to strengthen support and systematically enhance digital capacity.

Overall, the survey results indicate that MSMEs in Makassar City have demonstrated awareness of the importance of digitalization; however, its implementation remains partial and has not been fully integrated into their business management systems. The potential for development is enormous, mainly because the majority of business actors come from the younger generation, who are open to innovation. Therefore, the digitalization strategy going forward must focus on improving digital literacy, integrating the digital training and financing ecosystem, and strengthening collaboration among the government, academia, and the local business community.

Table 2. Summary of the Results of the MSME Digitalization Survey in Makassar City

Observed Aspects	Key Indicators	Yield / Percentage (%)	Brief Description
Utilization of Digital Technology	Social media use	73%	Dominant for customer promotion and communication
	Use of e-commerce	35%	Still low due to technical and time constraints
	Digital payments (QRIS/e-wallet)	68%	It has become commonly used
	Financial management apps	27%	Only educated business actors use it
Training and Digital Literacy	Have participated in digitalization training	22%	The majority have never had formal training
	Have never attended training	56%	Time and cost constraints are obstacles

Observed Aspects	Key Indicators	Yield / Percentage (%)	Brief Description
Perception of Digitalization	Assessing digitalization is important	83%	High awareness but not yet fully ready
	Ready for complete digital transformation	37%	Still limited to businesses with high literacy
Major Obstacles	Low human resources and digital literacy	67%	Lack of knowledge and expertise
	High transformation costs	54%	Limited capital and financial support
	Limited internet infrastructure	48%	Connectivity issues in suburban areas
Positive Impact	Increased turnover after digitalization	64%	Especially in the culinary and fashion sectors

Source: Primary Data, 2025

SWOT Analysis of MSME Digitalization in Makassar City

SWOT analysis is used to identify internal and external factors that affect the success of the MSME digitalization process in Makassar City. Through this approach, an overview of strengths and weaknesses is obtained from the internal side, as well as opportunities and threats from the external side. The analysis was conducted based on the results of a survey of MSME actors, in-depth interviews, and Focus Group Discussions (FGD) with relevant stakeholders.

1. Strengths

MSME actors in Makassar City possess several strengths that can serve as the primary capital for accelerating the digitalization process. First, the spirit of adaptation and openness to innovation is relatively high, especially among the younger generation who dominate business actors. Second, MSME products have a strong local character, such as traditional culinary and creative products that are readily marketable digitally. Third, there is an active business community and social network, such as Makassar Digital Valley and the South Sulawesi Digital MSME Forum, which provide training, mentoring, and collaborative support. Fourth, some business actors have utilized social media and digital payments to reach a broader market and increase transaction efficiency. This strength reflects the excellent potential for Makassar MSMEs to upgrade through the sustainable use of digital technology.

2. Weaknesses

Despite showing great potential, several weaknesses still need to be addressed. First, low digital literacy makes it difficult for business actors to strategically optimize the use of technology. Second, the limited availability of human resources and digital experts leads to content management and digital marketing being carried out in a makeshift manner. Third,

there is a lack of access to digital funding and technology infrastructure, especially in suburban areas. Fourth, the dependence on manual promotion remains high because some business actors lack an understanding of customer data analysis and digital analytics. These weaknesses indicate that digitalization has not yet become an integral part of the MSME business management system in Makassar.

3. Opportunities

The external environment presents an excellent opportunity for accelerating the digitalization of MSMEs. First, the central and regional government's policy support for the Go Digital MSME program and the National Proud Made in Indonesia Movement (Gernas BBI) opens up new spaces for collaboration. Second, the development of internet infrastructure and digital ecosystem in Makassar is getting better, along with the growth of internet users and e-commerce penetration. Third, changes in consumer behavior towards post-pandemic digitalization have created a market that is more responsive to online transactions. Fourth, partnerships with digital platforms and higher education institutions provide opportunities for MSMEs to get assistance and knowledge transfer. By taking advantage of this opportunity, MSMEs can enhance their competitiveness and significantly expand their market.

4. Threats

Several external factors also have the potential to hinder the success of digitalizing MSMEs in Makassar. First, the high level of competition in the digital market, both between local players and with products from outside the region that enter through e-commerce. Second, vulnerabilities to cybersecurity, such as online fraud and customer data leaks, remain a significant concern. Third, changes in the algorithm of digital platforms can affect the visibility of promotional content and sales. Fourth, dependence on large digital platforms has the potential to create business instability if there is a change in policy on these platforms. Therefore, MSME actors need to develop a digital diversification strategy so that they are not dependent on a single marketing channel.

Table 3. SWOT Analysis Matrix for Digitalization of MSMEs in Makassar City

Internal/External Factors	Strengths	Weaknesses
Internal Factors	1. The high spirit of adaptation and openness to technology.	1. Low digital literacy and technical capabilities of business actors
	2. MSME products have a strong local character and cultural value.	2. Limited human resources and digital experts at the MSME level.
	3. The availability of an active digital business community	3. Lack of access to capital and supporting infrastructure
	4. The use of social media and digital payment systems.	4. Reliance on manual promotions without data analysis.
	Opportunities	Threats

Internal/External Factors	Strengths	Weaknesses
External Factors	<ol style="list-style-type: none"> 1. Government policy support in the MSME digitalization program 2. The development of the digital ecosystem and internet network in Makassar. 3. Changes in consumer behavior towards online transactions. 4. Strategic partnerships with educational platforms and institutions. 	<ol style="list-style-type: none"> 1. Fierce competition in the digital and e-commerce markets. 2. Cybersecurity risks and data misuse. 3. Reliance on digital platform algorithms 4. Fluctuations in digital service policies and fees.

SWOT Analysis Results Strategy

Based on the SWOT matrix above, several main strategies that can be applied to encourage the digitalization of MSMEs in Makassar City are obtained:

1. SO (Strength–Opportunity) Strategy:

Utilizing the adaptive spirit and local character of the product to strengthen the position of MSMEs in the digital market through collaboration with e-commerce platforms and educational institutions. The government and the digital community need to expand training and promotion based on local *branding*.

2. WO (Weakness–Opportunity) Strategy:

Overcoming the limitations of human resources and digital literacy by providing technical training programs, intensive mentoring, and access to digital financing. Strengthening cooperation between the Cooperative Office, universities, and local business incubators is the key to increasing the capacity of MSMEs.

3. ST (Strength–Threat) Strategy:

Optimizing digital communities and networks to face market competition by expanding distribution channels and creating product differentiation based on local creativity. Additionally, MSME actors need to raise awareness about cybersecurity through education and effective data protection policies.

4. WT (Weakness–Threat) Strategy:

Encourage the diversification of digital platforms and effective business risk management by strengthening collaboration among MSME actors. Local government regulatory support is necessary to mitigate external risks, such as single-platform dependency or network disruptions.

The results of the SWOT analysis indicate that the potential for MSME digitalization in Makassar City is substantial. However, it must be balanced with the development of human resource capacity, digital infrastructure, and consistent policy support. The success of digitalization strategies depends not only on technology but also on the ability of business actors to adapt, innovate, and collaborate actively within the digital economy ecosystem. Therefore, the synergy between the government, MSME actors, the digital community, and

educational institutions is the primary foundation for creating a competitive and sustainable transformation of MSMEs in the digital economy era.

Implementation Strategy for Digitalization of MSMEs in Makassar City

The implementation strategy for the digitalization of MSMEs in Makassar City departs from the finding that most business actors have understood the importance of digital technology, but lack the capacity and systematic implementation guidelines. Therefore, this strategy focuses not only on technology introduction but also on empowerment, collaboration, and sustainability. The approach is carried out in a participatory manner, where MSME actors, local governments, business communities, educational institutions, and technology providers play an active role in each stage (Caraka et al., 2024; Dellyana et al., 2023; Karunia et al., 2024; Kilay et al., 2022).

The proposed approach refers to the 3C (Capacity–Collaboration–Continuity) integrative model, namely:

1. Capacity Building – increasing the digital capacity of business actors.
2. Collaboration Enhancement – strengthening collaboration across sectors and digital communities.
3. Continuity System – creates the sustainability of the digitalization ecosystem through policy support and incentives.

Phase 1 – Digital Capacity Building

The first step that must be taken is to enhance the basic ability of MSME actors to understand and utilize digital technology. Based on the survey results, 56% of respondents have never participated in digital training, so capacity interventions are a top priority. Suggested strategies include:

- Tiered digital literacy training that includes three levels: beginner (basic application and social media introduction), intermediate (digital marketing and analytics), and advanced (business automation and customer data management).
- Field mentoring programs (coaching clinics) are carried out regularly by the Cooperatives & MSMEs Office with universities and local digital communities such as *Makassar Digital Valley*.
- The formation of local mentors of digital champions, namely MSME actors who have successfully implemented digital strategies to become companions for other businesses around them.

This activity aims to ensure that MSME actors are not only able to utilize technology but also understand data-driven business strategies and digital content relevant to their target market.

Phase 2 – Strengthening Digital Ecosystem Collaboration (Collaboration Enhancement)

The digital transformation of MSMEs cannot run alone; It requires synergy between parties in a collaborative ecosystem. The results of the FGD indicate that the business community in

Makassar is already active; however, it is still partially operational and lacks well-coordinated efforts. Strategies at this stage include:

- Multi-helix collaboration between the government, universities, the private sector, and the MSME community to build an integrated mentoring platform.
- Partnerships with national technology and e-commerce companies to facilitate the onboarding of local products to digital marketplaces.
- Integration of digital MSME data through regional information systems managed by the Cooperative and Communication and Information Services, in order to monitor the development of digitalization in real time.
- The implementation of a digital business fair event at the city level that brings together MSMEs, investors, and technology startups to expand the cooperation network.

Through strengthening collaboration, MSME actors can gain access to technology, training, and broader and sustainable market opportunities.

Phase 3 – Digital Enabler Support

One of the weaknesses identified in the study is the limitations of digital infrastructure and funding. For this reason, the following strategies need to be implemented:

- Provision of co-working space and digital hub facilities in each sub-district that MSME actors can use to learn, sell online, and network.
- Providing regional tax incentives or internet subsidies for MSMEs that are active in digital transactions.
- Partnerships with financial institutions and fintechs to expand access to digital-based financing (e.g., *digital lending* and *invoice financing*).
- Public internet infrastructure support through the *MSME Free Wi-Fi* program in traditional markets and culinary centers in Makassar.

This approach aims to lower the cost barriers to technology adoption and accelerate the integration of MSMEs into the local digital economy.

Stage 4 – Digital Market Expansion

To strengthen competitiveness, MSMEs need to increase product exposure in the digital market. Proposed strategies:

- The creation of the local brand "Makassar Digital MSMEs" as a common identity for digital business actors in this city.
- The application of creative content strategies (creative storytelling) in the promotion of products based on Makassar's local wisdom.
- Optimizing social media through *influencer partnerships* and *micro-marketing strategies* so that promotions are more effective in reaching young consumers.
- The "1000 MSMEs Go Online" program is focused on bringing local products to national and international marketplaces.

With this strategy, Makassar MSME products are expected not only to be known locally but also to have a competitive appeal in the national digital market.

Phase 5 – Continuity and Policy Integration

For MSMEs to run sustainably through digitalization, it is necessary to have an integrated monitoring and evaluation system that aligns with regional policies. The proposed strategies include:

- Preparation of regional regulations on strengthening the digital MSME ecosystem, including incentives, data protection, and standardization of digital product quality.
- Monitoring digitalization achievements through a performance dashboard that records the number of digital MSMEs, online turnover, and training participation levels.
- An annual evaluation program between governments, academia, and the business community to correct strategic weaknesses and adapt to new technological developments.
- Long-term collaboration with research institutions to ensure data-based digitalization strategies and evidence-based policies.

This step ensures that the digitalization of MSMEs is not only a temporary project but part of the roadmap for inclusive and competitive regional economic development.

Table 4. Implementation Strategy Map for Digitalization of MSMEs in Makassar City

Strategy Stages	Main Activity Focus	Actors Involved	Success Indicators
Capacity Building	Digital training, mentoring, and formation of digital MSME mentors	Cooperative Offices, Universities, Digital Communities	300 MSME actors take part in basic and medium digital training
Collaboration Enhancement	Cross-sector partnerships and MSME data integration	Local Government, E-commerce, Business Community	Digital MSME data platform built and actively used
Digital Enabler Support	Co-working space facilities, internet support, and digital financing	Makassar City Government, Fintech, Telkom, Regional Banks	5 Active Digital Hubs and 500 MSMEs get access to digital financing
Digital Market Expansion	Local branding, creative content promotion, "MSME Go Online" campaign	Tourism Office, Communication and Informatics, Local Influencers	50% increase in MSMEs actively selling online
Continuity & Policy Integration	Regional regulations, evaluation, and dashboard for MSME digitalization	City Government, LPPM, Academics, Community	Regional policies for digital MSMEs are issued and evaluated every year

This implementation strategy has direct implications for increasing the competitiveness of MSMEs in Makassar City. First, increasing digital capacity drives operational efficiency and strengthens product innovation capabilities. Second, cross-sector collaboration expands market access and accelerates the adoption of technology. Third,

infrastructure support and digital financing reduce cost barriers, making it easier for MSMEs to expand their business. Fourth, digital marketing strategies enhance the image and local brands that serve as differentiators in the national market. Fifth, policy sustainability ensures that digital transformation takes place consistently and inclusively.

Overall, the MSME digitalization strategy in Makassar City should be implemented through a systematic, participatory, and sustainable approach. Increasing digital literacy, strengthening collaboration, and progressive policy support are the primary keys in encouraging MSME actors to upgrade in the digital economy era. If this strategy is implemented consistently, Makassar City has the potential to become a model city with an inclusive, innovative, and competitive digital MSME ecosystem in the Eastern region of Indonesia.

CONCLUSIONS AND SUGGESTIONS

This study concludes that the process of digitizing MSMEs in Makassar City has shown positive developments, although it is still in its early stages of development. Most businesses have leveraged social media and digital payment systems. However, their implementation has not been evenly distributed across all aspects of the business, such as financial management, integrated promotions, and data-driven customer service. The level of awareness among business actors regarding the importance of digital technology is relatively high; however, it still faces significant obstacles, including limited digital literacy, inadequate human resources, insufficient infrastructure, and limited access to digital financing. This condition suggests that digitalization efforts should focus not only on increasing technology use but also on capacity building and ongoing support.

The results of the SWOT analysis indicate that the primary strengths of MSMEs in Makassar include the distinctive character of their products, their ability to adapt to innovation, and the presence of an active digital community. On the other hand, the weaknesses lie in the limited technological knowledge, low digital marketing skills, and a lack of business data integration. Great opportunities arise from government policy support, the growth of the national digital ecosystem, and shifts in consumer behavior towards online transactions. Meanwhile, threats to watch out for include fierce competition in the digital market, cybersecurity risks, and reliance on specific platforms. Thus, the success of MSME digital transformation depends on the ability to optimize internal strengths and external opportunities simultaneously.

The implementation strategies proposed in this study focus on five main aspects, namely digital capacity *building*, collaboration *enhancement*, digital *enabler support*, market expansion through creative promotion, and policy sustainability (*continuity and policy integration*). The five strategies are interconnected and designed to strengthen the competitiveness of MSMEs gradually. This approach emphasizes cross-sector collaboration among local governments, universities, the business community, and technology providers, ensuring that digital transformation is practical, participatory, and sustainable.

Based on the study's findings, several policy suggestions can be implemented. First, local governments need to develop a *roadmap for digitizing MSMEs* that is integrated with regional economic development plans. Second, digital training and mentoring must be carried out in stages and continuously by involving universities and local communities. Third, expanding access to digital financing through collaboration with financial institutions and fintech is needed to support technology investment. Fourth, the development of public digital infrastructure, such as digital hubs and co-working spaces, must be expanded to the peripheral areas. Fifth, data protection and cybersecurity regulations must be strengthened to create a safe and reliable digital ecosystem for MSME actors.

Overall, this study emphasizes that the digitalization of MSMEs is not only a technological process but also a cultural transformation and a strategic business approach. The success of digitalization is highly dependent on the ability of business actors to adapt to change, innovate sustainably, and utilize cross-sector collaboration as the main driver. With consistent policy support and synergy between the government, academics, business actors, and the digital community, Makassar City has the potential to become a model for the development of the digital MSME ecosystem in the Eastern region of Indonesia. Further research is recommended to measure the economic and social impact of implementing this strategy in the medium term, thereby strengthening the policy direction for inclusive and sustainable digital economy development.

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