

The Role of Innovation in Improving the Competitiveness of UMKM in the Digital Era

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ABSTRACT

The purpose of this literature review is to comprehensively examine how innovation plays a role in increasing the competitiveness of Micro, Small, and Medium Enterprises (UMKM) in the current digital era. This study uses a qualitative research method with a literature review approach to various relevant previous research results for the 2020–2025 period. The literature sources used include scientific journals discussing product innovation, service innovation, digitalization, and digital marketing strategies applied to UMKM. The results show that innovation is a key component that helps UMKM become more competitive by creating innovative products, improving the quality of technology-based services, and implementing effective digital marketing strategies. These three aspects of innovation have been proven to strengthen the position of UMKM in facing changes and increasingly competitive global business.

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INTRODUCTION

The rapid development of digital technology has had a significant impact on the business world. The digital era has transformed the way people communicate and interact, providing micro, small, and medium enterprises (UMKM) with new opportunities to improve operational efficiency and expand their market reach. However, these changes also require a high level of adaptability for UMKM to compete in today's increasingly digital global business environment.

UMKM are businesses that produce products and services using primary raw materials and are based on the utilization of natural resources, traditional skills, and local artwork (Halim, 2020). Micro, Small, and Medium Enterprises (UMKM) play a crucial role in the national economy, serving as the backbone of employment and contributing significantly to regional and national economic growth. UMKM also play a crucial role in promoting economic equality and strengthening local economic resilience. However, amidst the rapid

development of technology and digitalization, many UMKM still face fundamental challenges. Limited innovation, limited human resource quality, and limited use of digital technology are key barriers to increasing competitiveness. This lack of innovation often results in products and services that are unable to compete, both in terms of quality, uniqueness, and added value, in an increasingly competitive market. This situation demands that UMKM be more creative, adaptive, and innovation-oriented to survive and thrive amidst the changing digital business environment.

Competitiveness is a capability that business or economic actors need to possess and continuously improve to maintain the sustainability of their businesses (Sulistiyani et al., 2020). Competitiveness depends not only on product quality and price, but also on their ability to adapt to the dynamics of the current business environment. Innovation is key to strengthening this competitiveness, because through product innovation, service innovation, and digital marketing strategies, UMKM can create unique added value and expand market reach. By utilizing digital technology effectively, UMKM can improve operational efficiency, better understand consumer needs, and build sustainable relationships with customers. Thus, MSME competitiveness will increase if they are able to integrate innovation and technology into every aspect of their business activities.

Product innovation is a key element in modern business strategy. This innovation focuses not only on creating new goods or services but also includes improving quality, differentiation, and adapting to changing consumer needs (Tidd and Bessant, 2018). The three main components of innovation in this context are product innovation, service innovation, and digital marketing. Product innovation enables UMKM to create or modify products to better suit market needs and provide unique added value. Service innovation focuses on improving the quality of interactions with customers through fast, friendly, and responsive service, including the use of digital technology to provide convenience. Meanwhile, digital marketing is an important tool for UMKM to promote products more widely, build brands, and increase sales through online platforms. These three innovations contribute to increasing MSME competitiveness amidst increasingly fierce business competition.

Although these three factors have been widely discussed in previous research, no study has integrated them into a single conceptual framework to comprehensively explain the increased competitiveness of UMKM. Through a literature review, this study provides an academic contribution by integrating these three factors: product innovation and digital marketing service innovation into a single analytical framework. Given the crucial role of innovation in enhancing competitiveness, an in-depth study of innovation strategies that UMKM can implement in the digital era is necessary. The findings of this study are expected to provide both theoretical and practical benefits in developing innovation strategies that meet the demands of today's digital era.

LITERATURE REVIEW

a. Micro, Small and Medium Enterprises (UMKM)

The rapid development of digital technology has had a significant impact on the business world. UMKM play a crucial role as the main drivers of the national economy, not

only creating jobs but also contributing to economic equality across regions. In today's modern context, UMKM are not only focused on conventional production and trade activities but are also required to adapt to developments in digital technology.

UMKM play a crucial role in the national economy due to their significant contribution to Gross Domestic Product (GDP), job creation, and equitable distribution of economic development outcomes (Kiswandi, Setiawan & Ghifari, 2023). According to INDEF data, this sector contributes more than 60% to Indonesia's total GDP and employs approximately 97% of the national workforce. Due to this significant contribution, UMKM are the backbone of the economy, supporting the livelihoods of the wider community and advancing national economic resilience (Kurniawan et al., 2024). However, UMKM still face significant challenges in maintaining and increasing productivity and competitiveness amidst rapid globalization and technological advancements. (Djarmiko, 2023).

Despite their strategic role, UMKM still face a number of fundamental issues, such as limited access to funding, technology, and market information, as well as a shortage of skilled workers (Tambunan, 2019). Furthermore, intense competition from large-scale businesses and globalization require UMKM to adapt quickly, particularly in utilizing digital technology as part of a sustainable business strategy (Setyawan et al., 2022).

Law Number 20 of 2008 concerning Micro, Small, and Medium Enterprises (UMKM) defines it as follows:

1. A micro-enterprise is a productive economic activity carried out by an individual or a sole proprietorship with certain characteristics in accordance with statutory provisions.
2. A small-scale enterprise is a productive economic activity operated by an individual or an independent business entity, not a subsidiary or branch of a medium-sized or large business, either directly or indirectly, and meeting predetermined criteria.
3. A medium-sized enterprise is a productive economic activity carried out independently by an individual or business entity, not categorized as a small or large business, and subject to limits on net assets or annual sales revenue as stipulated by statutory provisions.

Government Regulation (PP) No. 7 of 2021 concerning the criteria for Micro, Small, and Medium Enterprises (UMKM) is determined based on business capital and annual sales revenue. These criteria are divided into three categories:

1. Micro Enterprises with minimum capital of IDR 1 billion and annual sales of no more than IDR 2 billion;
2. Small Enterprises with capital of IDR 1 billion to IDR 5 billion and annual sales of IDR 2 billion to IDR 15 billion;
3. Medium Enterprises with capital of IDR 5 billion to IDR 10 billion and annual sales of IDR 15 billion to IDR 50 billion.

The main functions of UMKM in the economy include the following:

1. Providing employment, with UMKM able to accommodate up to 50% of the workforce in the small-scale industrial sector.
2. Driving entrepreneurial expansion and progress, as the existence of UMKM has been proven to foster enthusiasm and opportunities for aspiring new entrepreneurs.

3. Implementing simple management, which allows UMKM to easily adapt to change, grow and develop, and drive progress in the related industrial sector.

Some of the challenges faced by UMKM in the digital era include the following:

1. Low digital literacy, with some UMKM unable to utilize marketplaces, implement digital marketing strategies, or use online payment systems.
2. Limited infrastructure, particularly unequal internet access in rural areas, hinders digital-based marketing activities.
3. Limited capital makes it difficult for UMKM to invest in digital technology, design attractive packaging, and develop marketing strategies.
4. Improvements in product quality and business management are still needed for UMKM to compete in a broader market (Anabuni et al., 2025).

b. Innovation

Innovation plays a key role in enabling a business to maintain and enhance its competitiveness amidst today's global competition. Beyond creating new products and services, innovation also encompasses adaptable processes, business models, and management methods. Effectively implemented innovation enables companies to create solutions and provide added value to customers, thereby enhancing competitiveness. Good innovation management enables businesses to maintain a lasting competitive advantage. Companies that fail to implement innovation strategies appropriately risk falling behind their competitors and facing difficulties in surviving in an increasingly competitive environment (Soeratin, 2024).

Innovation has several characteristics that distinguish it from mere change (Hendayana, Y., & Fauzi, A, 2024). Some of these characteristics include:

1. **Novelty:** An innovation must be perceived as new by its users, even though it may already exist elsewhere. This novelty element is relative, depending on the user's perspective.
2. **Added Value:** An innovation must provide tangible benefits, such as improved quality, efficiency, or customer satisfaction. This aspect is a key determinant of an innovation's success.
3. **Applicability:** An innovation must be more than just conceptual; it must also be realistic and implementable in practice within the existing context.

Although innovation offers many benefits, its implementation is not without challenges. Some of these challenges include:

1. **Resistance to change,** where individuals and organizations are often reluctant to accept new things, even if the change has the potential to bring benefits. This attitude can hinder innovation and reduce its effectiveness.
2. **Limited resources,** because innovation requires investments in time, effort, and funds. A lack of resources can hinder organizations in the innovation process.
3. **Market uncertainty,** namely unpredictable and unstable market conditions, which can make organizations hesitate to invest in innovation.
4. **Lack of support from management;** leadership involvement and commitment are crucial for innovation activities to receive adequate attention and resource allocation.

5. Concerns about Risk: Innovation often involves risks, both financial and reputational, making organizations hesitant to take innovative steps.

c. Product Innovation

Product innovation is one of the keys to increasing the competitive advantage of UMKM; it means not only creating something new but also improving or developing existing products to adapt them to market needs. (Avriyanti, 2022). Product innovation includes the introduction of new products or services as well as significant improvements in their features, quality, or usability. This innovation can be used to create added value, differentiate from competitors, expand market share, and increase customer loyalty.

UMKM are required to continuously innovate in product design and design to make them more attractive, offer better quality, and offer unique features that differentiate them from competitors' products (Herman & Nohong, 2022). MSME competitiveness can be enhanced through product innovation, such as improved design and quality, in a broader market (Herman & Rosman, 2021). Design and packaging innovation are crucial for product recognition and building a strong brand identity within consumers. Visual uniqueness and product appeal are crucial factors in shaping consumer perceptions, especially when promotions are conducted through online platforms such as social media and marketplaces. Such innovation helps UMKM stand out in the crowded and competitive digital marketplace.

In the digital era, product innovation is increasingly influenced by developments in information and communication technology. The digitalization process provides new opportunities for businesses to more easily obtain customer data, accelerate product prototyping, and improve the quality of interactions between producers and consumers. The use of social media, e-commerce platforms, and various digital applications has become a crucial tool in product development, marketing, and adjustments based on market feedback.

d. Service Innovation

In addition to product innovation, UMKM also need to pay attention to service innovation. Service innovation refers to the extent to which a business is able to create a competitive advantage by improving service performance and the efficiency of its work systems. This innovation plays a crucial role in strengthening UMKM' position in the market, particularly by accelerating service processes and increasing customer satisfaction (Storey et al., 2016) in (Hasna, 2020). Service innovation can significantly increase customer satisfaction levels (Delafrouz et al., 2013) in (Saputri, 2020). This satisfaction is created by companies making changes and improvements in service, including improving interactions with customers to maintain ongoing communication and commitment.

By setting clear goals, service innovation can be achieved, such as meeting customer needs, opening new markets, and strengthening product positioning in the marketplace. Service innovation typically involves developing new services and procedures, or processes that can increase the added value of the service provided. Attracting customer attention and increasing company competitiveness are the primary goals of service innovation.

e. Digital Marketing

Marketing is a managerial process that serves to meet the needs and desires of individuals and groups through the creation, offering, and exchange of valuable products

with others (Ariyanto et al., 2023). In this context, innovation is crucial for improving marketing strategies, particularly through the use of digital technology, which has given rise to the concept of digital marketing. Digital marketing is currently a crucial strategic approach for business sustainability, particularly in an era of increasingly rapid technological transformation.

Through digital marketing, businesses can expand their market reach and interact with consumers more quickly and efficiently through various internet-based platforms. Furthermore, this strategy enables two-way interaction between businesses and consumers, enabling companies to more accurately understand market needs. Digital marketing also provides opportunities to manage brand image and build long-term relationships with customers through the delivery of relevant and consistent information. Therefore, implementing digital marketing is a crucial element in strengthening competitiveness and maintaining business sustainability amidst the changes and dynamics of today's modern economy.

f. Competitiveness UMKM

In the digital era, competitiveness is increasingly influenced by the speed of technology adaptation, market data analysis capabilities, and the ability to build superior digital customer experiences. Digital-based operations have been proven to support increased competitiveness of UMKM through cost efficiency, accelerated service delivery, improved product quality, and global market access (Putri et al., 2021). Digital strategies enable UMKM to implement differentiation and focus advantages tailored to specific market segments, in line with Porter's generic strategy approach.

Competitiveness is the ability of an individual, company, or country to maintain and strengthen its position in an increasingly competitive market. In the context of Micro, Small, and Medium Enterprises (UMKM), competitiveness reflects not only the ability to survive in the market but also the extent to which business actors are able to innovate and adapt to change, and create added value for their consumers.

Factors such as product quality, marketing strategy, cost efficiency, innovation capacity, and technology utilization significantly influence competitiveness. UMKM that are able to innovate and adapt to evolving market trends have a greater opportunity to grow and expand their market reach (Prasetyo and Nuraini, 2021).

METHODS

The research method used was a qualitative one, employing a literature review to support the theoretical basis of the study. Qualitative research is an approach used to understand social or humanitarian phenomena in depth, by constructing a comprehensive and complex picture through narrative presentation (Walidin, Saifullah & Tabrani, 2015) in (Fadli, 2021).

Data were collected from randomly selected previous studies published in the last ten years (2015–2025). The literature review method allowed researchers to examine various relevant previous studies, thus gaining a comprehensive understanding of the relationship

between Product Innovation, Service Innovation, and Digital Marketing in Increasing the Competitiveness of UMKM in the Digital Era.

RESULTS AND DISCUSSION

A research method is a scientific approach used to systematically collect data to achieve objectives and provide specific benefits. This study examined 10 research journals from the last five years (2020-2025). All previous research findings discuss how innovation plays a role in increasing the competitiveness of UMKM in the digital era. The following is a review based on citations:

Tabel 1. Study examined 10 research journals from the last five years (2020-2025)

No	Author Name	Title	Research Results
1	Purba, A. T., Sitorus, A., Putri, H. R., & Manurung, S. N. K (2025). Jurnal Studi Multidisipliner Vol 9 No. 5 Mei 2025 eISSN: 2118-7453	The Role of Innovation in Increasing the Competitiveness of UMKM in the Digital Era: A Case Study: Delair Bouquet	The research results show that innovation plays an important role in increasing the competitiveness of UMKM in the digital era.
2	Tarigan, C. A., Sembiring, H., Yulinda, R., Bako, S. M., & Arsyadona (2025). Jurnal Bisnis, Ekonomi Syariah, dan Pajak Volume 2, Nomor 2	The Role of Digital-Based Operational Innovation in Increasing the Competitiveness of UMKM	The research results show that digital-based operational innovation has an important role in increasing the competitiveness of UMKM.
3	Sunarto, A., Napisah, A., Putri, A. R., & Anggraini, A. (2025). Jurnal PKM Manajemen Bisnis e-ISSN 2797-8338 Vol. 5, No. 2	Improving MSME Competitiveness through Innovation and Digitalization at the MSME Entrepreneurship Network (Jawara) in the Bojongsari Area Depok	Research results show that this program's innovation and digitalization approach has helped Javanese UMKM utilize digital technology and strengthen their competitiveness amidst increasingly competitive economic conditions.
4	Muslihah, S., & Ginting, A. L. (2024). Jurnal Ilmiah Ekonomi Manajemen Bisnis dan AkuntansiVol.1, No.2	The Role of Technological Innovation in Increasing the Competitiveness of UMKM: A Case Study of the Implementation of Digital Solutions in the Economic Sector of Tegal Sari Mandala I Village, Medan Denai District, Medan City	The results of the study show that technological innovation plays an important role in increasing the competitiveness of UMKM in Tegal Sari Mandala I Village.

5	Hidayatullah, S., & Pratama, D. (2025). Journal of Applied Economics and Business Global Volume 1, Number 1	The Role of Product Innovation in Increasing the Competitiveness of UMKM	The results of this study show that product innovation plays an important role in increasing the competitiveness of UMKM in the midst of increasingly complex market competition.
6	Putri, F. A., & Munawaroh. (2025). Jurnal Manajemen Riset Inovasi Volume. 3 Nomor. 1	An Analysis of Digital Marketing Strategies to Increase Competitiveness of UMKM in the Era of Globalization	The research results show that an effective digital marketing strategy can increase sales of MSME products, especially through wider access and more specific targeting.
7	Romadia, Floryan., Mahendra, F., & Noviyanti, I. (2025). Eksis: Jurnal Ilmiah Ekonomi dan Bisnis Volume 16, No 1	The Influence of Product Innovation on Increasing the Competitiveness of Culinary UMKM in Pangkalpinang City	The results of this study indicate that product innovation influences the increased competitiveness of UMKM. There is a positive and significant relationship between product innovation and MSME competitiveness. This means that the higher the product innovation, the greater their ability to compete in the market.
8	Tustiati (2025). JUKONI: Jurnal Ilmu Ekonomi dan Bisnis ISSN 3064-3406 (E)Volume 02, Nomor 02	Product Innovation Strategy to Increase MSME Competitiveness in the Digital Era	The research results reveal that product innovation strategy has an important role in competing in the digital era.
9	Putri, P. L., & Widadi, B. (2024). Jurnal Riset Ilmu Manajemen dan Kewirausahaan Vol. 2 No. 4	The Role of Innovation in Developing MSME Business Models in the Digital Era	The research results show that innovation has a crucial role in the development of MSME business models. By innovating, UMKM can increase their competitiveness in the digital era.
10	Abas, S., Abjan, W., Samiun, A. A., Bisri, C., Muktamar, A., & Sari, N. W. (2025). Jurnal Review Pendidikan dan Pengajaran Volume 8 Nomor 2	Analysis of the Role of Innovation Management in Increasing the Competitiveness of UMKM	The results of this study demonstrate that innovation is crucial for increasing the competitiveness of UMKM through product development, technology utilization, human resource enhancement, and the implementation of digital strategies.

			Effectively managed innovation will enable UMKM to be more adaptable to market dynamics and achieve greater competitiveness.
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a. The Role of Product Innovation in Increasing the Competitiveness of UMKM in the Digital Era

Product innovation is a key dimension driving the competitiveness of UMKM. Changing packaging and adding flavor variants are concrete forms of innovation proven to improve consumer perceptions of product value and quality. Product innovation is developed from ideas tailored to the needs and preferences of today's consumers. This process follows emerging trends and continuously adapts to market changes. UMKM in today's digital era are required to continuously develop product shapes and appearances to make them more presentable, attractive, and possess distinctive characteristics that differentiate them from competitors. Design and packaging innovation are crucial for product recognition and building a strong identity in the minds of consumers (Herman & Nohong, 2022). Amidst increasingly fierce digital competition, visual uniqueness and product appeal are crucial factors in shaping consumer perceptions, especially when promotions are conducted through online platforms such as social media and marketplaces. This kind of innovation helps UMKM stand out in the crowded and competitive digital marketplace.

This is in line with the research findings of Romadia, Floryan, Mahendra, F., & Noviyanti, I. (2025), which show that product innovation is a crucial factor driving increased competitiveness of UMKM. This means that the more optimally product innovation is implemented, the higher the level of competitiveness of UMKM. However, Tustiati (2025) emphasized that many UMKM are still unable to optimize the use of digitalization due to limited literacy and access to technology. This condition is a major obstacle in encouraging the creation of product innovation in the digital era.

b. The Role of Service Innovation in Increasing the Competitiveness of UMKM in the Digital Era

UMKM need to focus on service innovation, which is the ability of a business to create a competitive advantage by improving service quality and optimizing the efficiency of its work systems. Service innovation encompasses any changes or updates in service delivery methods, customer interactions, service design, and service processes that result in increased value for consumers. For UMKM, service innovation can include digitizing the ordering process, using chatbots/app-based customer service, more efficient delivery systems, and digital after-sales services that enhance customer satisfaction.

The research results of Tarigan, C. A., Sembiring, H., Yulinda, R., Bako, S. M., & Arsyadona (2025) show that digital-based operational innovation plays a crucial role in increasing the competitiveness of UMKM, especially through increasing business process efficiency and optimizing customer service. However, Artanto, A. T., Kusnarto, Haryono, N., & Sholihatin, E. (2025) highlight that UMKM need to adapt to new ways of working by building

business relationships, improving service quality, mastering business technology, and utilizing social media. However, many UMKM are still in the early stages of digital transformation and require appropriate guidance and strategies to be able to build sustainable, technology-based business resilience.

c. The Role of Digital Marketing in Increasing the Competitiveness of UMKM in the Digital Era

To strengthen marketing strategies, innovation plays a crucial role through the use of digital technology, giving rise to the concept of digital marketing. Digital marketing is currently a crucial strategic approach for business sustainability, especially in an era of increasingly rapid technological transformation. Utilizing digital marketing provides opportunities for UMKM to reach a wider consumer base at a more cost-effective rate than conventional approaches. UMKM can increase the visibility and appeal of their products in a wider market by utilizing platforms such as Instagram, Facebook, and e-commerce.

In line with the research results of Abas, S., Abjan, W., Samiun, A. A., Bisri, C., Muktamar, A., & Sari, N. W. (2025), they explain that innovation plays a crucial role in increasing the competitiveness of UMKM by utilizing digital technology. If innovation is optimally managed, UMKM will be better able to adapt to market changes and compete more effectively. The use of digital technology not only accelerates business processes but also opens up new opportunities in product development and expanding market reach. However, Putri, F. A., & Munawaroh (2025) state that UMKM still face many challenges when adapting to digital technology. Limited human resources, minimal understanding of technology, and an organizational culture that does not fully support digital transformation are inhibiting factors that must be addressed immediately. Therefore, ongoing mentoring and training strategies are needed so that UMKM can optimize the potential of digital innovation to support sustainable competitiveness.

CONCLUSION

Product innovation is a key element in modern business strategy. Three key dimensions play a crucial role in this process: product innovation, service innovation, and digital-based marketing strategies. Through product innovation, UMKM are able to deliver added value and differentiation, making their products superior in the eyes of consumers. Implementing service innovation encourages improved interaction quality and customer satisfaction by leveraging modern technology. Meanwhile, digital marketing strategies expand market reach and strengthen brand image through more efficient online media. The combination of these three aspects of innovation serves as the primary foundation for UMKM to strengthen their competitive position in a dynamic business environment.

Furthermore, the study results show that the ability to adapt to digital technology developments is a key factor in the success of UMKM in implementing innovation. Utilizing appropriate technology can improve work efficiency, accelerate production processes, and expand global market access. However, various obstacles remain, such as low levels of digital literacy, limited capital, and a lack of skilled labor, which hinder the innovative transformation process. Through targeted innovation management, UMKM can be more

adaptive in facing market changes and expanding their business opportunities. Thus, innovation is key to the sustainability and growth of highly competitive UMKM in the digital era.

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