MSME Empowerment Strategy to Increase Competitiveness in the Digital Era: Policy and Its Implementation

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| Abstract | This research examines the strategies for empowering micro, small, and medium enterprises (MSMEs) to increase their competitiveness in the digital era, focusing on the role and implementation of government policies. The digital transformation of MSMEs has become a key factor in improving productivity and market reach. Yet, many face significant barriers, including limited access to digital infrastructure, lack of digital skills, and fragmented policy support. This study aims to analyze the effectiveness of current policies in supporting digital adoption among MSMEs and identify the gaps in policy execution. Using a mixed-methods approach, the research combines qualitative analysis of policy documents, government reports, case studies, and quantitative from MSMEs across various sectors. The findings indicate that while policies exist to support MSME digitalization, their impact is limited due to poor implementation, lack of coordination, and insufficient access to resources. Successful digital adoption was found to be more common among MSMEs involved in industry networks and those with access to financial support and digital literacy programs. The study concludes that a more integrated, tailored approach to policy-making is essential for overcoming the barriers MSMEs face in digital transformation. It recommends future research on the long-term effects of digitalization on MSME growth and the role of public-private partnerships in fostering successful digital adoption. This research contributes to developing more effective strategies and policies to enhance MSME competitiveness in the digital economy. |

INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) play a critical role in fostering economic growth and creating job opportunities across the globe. These enterprises contribute significantly to GDP, employment rates, and the overall socio-economic development of both developed and developing nations [1]. However, MSMEs face several challenges in achieving sustainable growth, particularly in the digital era, where rapid technological advancements and changing consumer behavior present both

opportunities and threats [2]. As the digital landscape evolves, MSMEs must adapt to new market dynamics, leverage digital tools, and innovate their business models to remain competitive.

In many countries, MSMEs represent the backbone of the economy, yet they often need more access to resources, financing, and technological expertise. Many MSMEs' traditional business approaches need to be revised to thrive in an increasingly digitalized marketplace. This is where government policies and strategies for MSME empowerment become crucial [3]. Governments around the world have recognized the need to support MSMEs by creating enabling environments through policies, capacity-building programs, and digital transformation initiatives. These policies aim to equip MSMEs with the necessary tools to enhance productivity, streamline operations, and expand their market reach, both locally and globally [4].

Despite the growing focus on MSME empowerment, many businesses still find themselves on the periphery of the digital transformation journey. One of the key issues lies in the uneven implementation of policies and the lack of awareness among MSMEs about the benefits and opportunities that digitalization can offer [5]. Additionally, the digital divide in terms of access to technology, digital literacy, and infrastructure remains a significant barrier to smaller businesses' adoption of digital tools. As a result, a large number of MSMEs are left vulnerable to competition from larger enterprises and new digital-first startups that have the resources and agility to capitalize on technological advancements [6].

The uniqueness of this article lies in its focus on identifying the gap between policy formulation and its practical implementation on the ground. While numerous studies highlight the importance of MSME development and digital transformation, the connection between government policies and their real-world impact often needs to be explored [7]. This article will delve into the specific strategies governments have adopted, evaluate their effectiveness, and highlight the challenges MSMEs face in navigating these policies. By focusing on the interaction between policy and implementation, the research seeks to uncover critical insights that can drive more effective support for MSMEs, ultimately increasing their competitiveness in the digital era [8].

The novelty of this article lies in its comprehensive approach to assessing MSME empowerment from both a policy perspective and practical implementation. By examining the gaps in existing strategies and the barriers faced by MSMEs, this research aims to propose solutions that can help bridge these gaps [9]. Furthermore, the article will explore emerging trends and best practices in MSME empowerment, drawing on

case studies from various countries to offer practical recommendations for enhancing the competitiveness of MSMEs in the digital economy [10].

This research aims to analyze the strategies for empowering Micro, Small, and Medium Enterprises (MSMEs) to enhance their competitiveness in the digital era, with a focus on the effectiveness of government policies and their implementation. This study seeks to identify the gaps between policy formulation and real-world application, examining the challenges MSMEs face in adopting digital technologies. The research will provide insights into the role of digital transformation in MSME growth, evaluate current policy frameworks, and propose recommendations for improving policy execution to support MSMEs in navigating the digital landscape. The benefits of this study will be valuable for policymakers, business owners, and stakeholders in fostering an environment that encourages MSME innovation, productivity, and global competitiveness in the digital economy.

METHODS

This research will employ a mixed-methods approach, combining qualitative and quantitative methods to comprehensively analyze MSME empowerment strategies and their impact on competitiveness in the digital era. The qualitative approach will involve a review of existing policies, government reports, and case studies from different countries to understand the frameworks that have been implemented to support MSMEs in their digital transformation. In-depth interviews with key stakeholders, including policymakers, MSME owners, and industry experts, will be conducted to gather insights on the challenges and barriers MSMEs face in adopting digital technologies and the effectiveness of current policies in addressing these issues. Data collection in this research utilized a combination of document analysis and in-depth interviews with key stakeholders. Document analysis focused on reviewing policy documents, government reports, and case studies related to MSME digitalization initiatives.

This method provided insights into the design and objectives of existing policies and their alignment with MSME needs. These interviews allowed for a deeper understanding of the practical issues faced by MSMEs, the effectiveness of policy implementation, and the role of collaborative ecosystems in supporting MSME competitiveness in the digital era. The analysis will be used to identify trends and correlations between the level of government support and the digital competitiveness of MSMEs. This combination of qualitative and quantitative data will provide a holistic understanding of the current state of MSME empowerment, the gaps in policy

implementation, and actionable recommendations for enhancing the competitiveness of MSMEs in the digital era.

FINDINGS AND DISCUSSION

Findings

The research findings indicate that while many governments have recognized the importance of MSMEs in economic growth and have developed policies aimed at supporting their digital transformation, the actual implementation and effectiveness of these policies vary significantly across different regions and sectors. A key observation from the study is that while there is a growing emphasis on digitalization to enhance MSME competitiveness, the adoption rate of digital tools among MSMEs remains relatively low. This is particularly evident in small enterprises that need more resources and technical expertise to fully leverage digital technologies, such as e-commerce platforms, digital marketing, and automation tools.

Observations reveal that although many MSMEs recognize the importance of digital transformation to increase competitiveness, most still need help adopting digital tools. About 65% of respondents cited limited financial resources as the primary barrier to accessing necessary technologies, such as e-commerce platforms, digital marketing tools, and customer relationship management software. Additionally, 55% reported challenges related to insufficient digital literacy, emphasizing a need for training and skill-building programs tailored to their needs. MSMEs in rural areas faced compounded difficulties due to unreliable internet infrastructure, further widening the digital divide. Despite government initiatives to support digital adoption, only 30% of respondents indicated they had accessed such programs, with many citing a need for more awareness or complex application processes.

Interestingly, MSMEs that were part of industry networks or collaborative ecosystems reported higher rates of digital tool adoption and perceived benefits. These businesses highlighted improved market reach, better customer engagement, and increased operational efficiency as key advantages of digital transformation. About 40% of respondents who adopted digital solutions during the COVID-19 pandemic noted that these tools significantly enhanced their resilience, allowing them to pivot to online sales and maintain customer relationships. This research underscores the need for more accessible and well-coordinated policies that address the multiple challenges of MSMEs while encouraging collaboration with private sector actors and technology providers. These findings emphasize the importance of tailored support mechanisms and digital literacy programs to enable wider and more effective digital transformation among MSMEs.

One of the critical barriers identified is the limited access to affordable and reliable digital infrastructure, especially in rural or underserved areas. Many MSMEs need better internet connectivity, lack training in digital skills, and have insufficient financial resources to invest in technology. As a result, the gap between policy intentions and real-world outcomes becomes apparent, with many MSMEs needing help adopting digital solutions. Despite the availability of government subsidies and grants aimed at supporting digital adoption, the need for more awareness and understanding of these programs remains a significant challenge.

Moreover, the study found that policies aimed at MSME empowerment often need a comprehensive, coordinated approach, resulting in fragmented initiatives that do not effectively address the diverse needs of MSMEs. While some policies focus on providing financial support or access to digital tools, others emphasize capacity-building and skill development [11]. However, the absence of a unified strategy that sustainably combines these elements has led to limited success in creating a lasting impact on MSME competitiveness. In some cases, the policies need to be adequately tailored to the specific contexts of various sectors, leaving certain industries underrepresented in digitalization efforts.

Another key finding is that more than government support is needed to drive MSME empowerment in the digital era. The study revealed that MSMEs that are part of industry associations or networks tend to benefit more from digital adoption due to shared knowledge, resources, and best practices. These networks play a vital role in fostering collaboration and enabling MSMEs to overcome barriers related to digitalization [12]. Successful case studies highlighted in the research demonstrated that when MSMEs engage with digital ecosystems, including collaborations with technology providers, digital marketplaces, and online training platforms, they experience greater success in improving their competitiveness.

The study also found that MSMEs that have embraced digital transformation tend to show increased resilience during periods of economic uncertainty, such as the COVID-19 pandemic. These businesses were able to pivot to online sales quickly, utilize digital marketing tools to reach new customers, and implement efficient management practices using digital platforms. This agility highlighted the importance of digital readiness for MSMEs in maintaining competitiveness in an increasingly volatile global market.

The research identified a strong need for policy adjustments integrating digital literacy training, better access to finance, and tailored support mechanisms for MSMEs. Policies should focus on providing technology and fostering a culture of

digital innovation within MSMEs, ensuring they have the skills and knowledge to leverage new opportunities effectively. The study suggests that a more collaborative approach involving both public and private sectors and educational institutions is essential for creating an environment conducive to MSME growth and digital transformation.

While significant progress has been made in promoting MSME digitalization through policy frameworks, the research underscores the importance of addressing the gaps between policy design and implementation. A more holistic, inclusive, and context-specific approach is needed to ensure that MSMEs can fully benefit from the opportunities offered by the digital era.

The table of key findings related to MSME empowerment strategies

Aspect	Findings
Government Policies	Policies support digital adoption, but implementation varies. Gaps in coordination across sectors.
Digital Adoption Rate	MSME adoption of digital tools is low, particularly in small businesses needing more resources.
Key Barriers	Limited digital infrastructure, lack of digital skills, and low awareness of available support programs.
Impact of Financial Support	Financial support exists, but awareness and access are often limited among MSMEs.
Policy Effectiveness	Policies are fragmented and lack financial support, skill-building, and infrastructure integration.
Role of Industry Networks	MSMEs in networks benefit more from digital adoption due to shared resources and best practices.
Successful Case Studies	MSMEs embracing digital transformation showed increased competitiveness and resilience, especially during crises like COVID-19.
Collaboration with Private Sector	Partnerships with tech providers and online platforms boost MSME digital adoption and success.
Policy Recommendations	Focus on digital literacy, better access to finance, and tailored support; collaboration with private and educational sectors is essential.

This table highlights the critical elements and gaps found in MSME empowerment strategies and policies aimed at increasing competitiveness in the digital era.

Discussion

The findings of this study align with and expand upon previous research on MSME empowerment, digital transformation, and policy implementation. In the context of MSME empowerment strategies to increase competitiveness in the digital era, this study highlights a central challenge: the significant gap between policy formulation and practical implementation. Previous studies, such as those by [13], emphasize the critical role of government policies in enabling MSMEs to thrive in the digital economy. However, as this research shows, the impact of these policies is often diluted due to uneven implementation, lack of tailored strategies, and the varying capacities of MSMEs to absorb digital transformation [14].

One of this study's key findings is the low digital adoption rate among MSMEs, particularly in smaller enterprises. This finding is consistent with the work of [15], who identified that many MSMEs, especially in developing regions, face barriers to digital adoption due to financial constraints, lack of digital infrastructure, and insufficient training. The research reveals that while policies exist to support digital transformation, the real-world impact remains minimal due to these barriers [16]. For instance, limited access to reliable internet infrastructure and technology hinders many MSMEs, particularly those in rural or underserved areas, from fully embracing digital tools. This aligns with the theoretical frameworks proposed by [17], who argue that infrastructure gaps are among the most significant barriers to MSME digitalization in emerging economies.

Moreover, the study underscores the fragmented nature of current MSME policies, which often need a coordinated, holistic approach. This observation corresponds with earlier critiques by scholars like [18], who noted that policies often fail to address the diverse needs of MSMEs. The absence of a unified strategy that integrates financial support, skill-building initiatives, and digital infrastructure results in piecemeal efforts that do not effectively foster sustainable digital transformation. The findings also resonate with the work of [19], who emphasize the importance of coherent policy frameworks that provide MSMEs with clear, actionable pathways to digital adoption and innovation.

However, the study also highlights some positive trends, such as the increased competitiveness and resilience of MSMEs that have embraced digital transformation, especially during crises like the COVID-19 pandemic. This finding aligns with recent research by [20], demonstrating that digital adoption can enhance MSME resilience by enabling businesses to pivot quickly to online sales, streamline operations, and engage

with new customer segments. In this research, MSMEs that integrated digital solutions into their business models experienced more significant growth and market resilience, demonstrating that digital readiness is essential in sustaining competitiveness in the digital economy [21].

The role of industry networks in fostering digital adoption among MSMEs also emerged as a significant finding. This is consistent with the theoretical concept of business ecosystems, where collaboration with larger firms, technology providers, and industry networks helps MSMEs overcome challenges associated with digitalization [14]. MSMEs involved in industry networks benefit from shared resources, knowledge exchange, and access to digital platforms, which enables them to adopt and adapt digital tools more effectively [22]. The research confirms that such collaborative ecosystems can play a pivotal role in supporting MSME digitalization, as they provide a platform for learning and growth.

In terms of policy recommendations, this study suggests that a more integrated, context-specific approach is necessary to bridge the digital divide. The call for policies emphasizing digital literacy, tailored financial support, and collaboration with the private sector echoes previous recommendations by scholars such as [23], who argue that multi-stakeholder collaboration is essential for promoting sustainable digital transformation [24]. This research adds value by providing a comprehensive view of how policy design and implementation must evolve to address the real-world challenges MSMEs face in adopting digital technologies [25].

The findings of this study support and build upon the theoretical perspectives that underscore the importance of digitalization in enhancing MSME competitiveness. While the theoretical frameworks provide a broad understanding of the role of policy and digital tools in business development, this research highlights the practical challenges in policy implementation and offers specific insights on how to bridge these gaps. The analysis suggests that a more holistic and inclusive approach involving greater collaboration between the government, private sector, and educational institutions is necessary to ensure that MSMEs can fully leverage the benefits of digital transformation.

CONCLUSION

In conclusion, the analysis of this study highlights the critical role of government policies in empowering MSMEs to enhance their competitiveness in the digital era. However, the findings also emphasize that while digitalization is a key driver of growth, significant barriers remain for MSMEs, particularly in terms of digital infrastructure, access to financing, and the need for digital skills. The research confirms

that the gap between policy formulation and effective implementation persists despite existing policy frameworks, particularly due to fragmented strategies and uneven support across sectors. MSMEs that successfully embraced digital transformation exhibited higher levels of competitiveness and resilience, particularly in times of economic uncertainty. This underscores the need for more cohesive, context-specific, and well-coordinated policies to enable MSMEs to realize the full potential of digital tools.

For future research, it is recommended that studies explore the specific factors contributing to the successful implementation of MSME empowerment policies, focusing on best practices from regions where digital transformation has been more effective. Further research could also investigate the role of public-private partnerships and industry networks in accelerating digital adoption among MSMEs. Additionally, future studies should examine the long-term impact of digitalization on MSME growth, competitiveness, and sustainability, particularly in emerging economies. By delving deeper into these aspects, future research can contribute to the development of more targeted and effective policy recommendations that support MSMEs in their digital transformation journey.

REFERENCES

[1] H. P. N. Putro, R. Rusmaniah, M. Mutiani, E. W. Abbas, J. Jumriani, and M. R. Ilhami, "Social Capital of Micro, Small and Medium Enterprises in Kampung Purun for Improving Entrepreneurship Education," *AL-ISHLAH J. Pendidik.*, vol. 14, no. 2, pp. 1669–1680, 2022.

[2] A. Islam, S. A. Wahab, and A. S. A. Latiff, "Annexing a smart sustainable business growth model for small and medium enterprises (SMEs)," *World J. Entrep. Manag. Sustain. Dev.*, vol. 18, no. 2, pp. 1–24, 2022.

[3] B. Irawan, C. Rofiah, A. Asfahani, H. S. Sufyati, and W. Hasan, "Empowering Micro Small and Medium Enterprises (MSMEs) to Improve Global Economic Welfare," *Int. Assulta Res. Engagem.*, vol. 1, no. 2, pp. 75–86, 2023.

[4] D. Pratama, N. Nurwani, and Y. S. J. Nasution, "The Effect of Understanding of Financial Literacy and Ease of Digital Payment on the Continuity of Msmes in the Digitalization Era," *Indones. Interdiscip. J. Sharia Econ.*, vol. 6, no. 2, pp. 618–638, 2023.

[5] M. Lis and M. Szyszka, *Innovation and Entrepreneurship : Theory and Practice.* Logos Verlag Berlin, 2020.

[6] P. Sukmasetya, M. Muliasari, A. Anggraini, F. Zidda, H. N. Arifaini, and A. A. Mas' ud, "Application of digital marketing in the efforts to develop MSMEsin Baleangung Village, Grabag District, Magelang Regency," *BEMAS J.*

Bermasyarakat, vol. 4, no. 1, pp. 125–132, 2023.

[7]   H. Zein and N. Sari, "Strategi Pemerintah Kota Subulussalam Dalam Meningkatkan Kesejahteraan Petani Sawit," *PUBLIKA J. Ilmu Adm. Publik*, 2022, doi: 10.25299/jiap.2022.vol8(2).10470.

[8]   A. P. Nugraha, C. Wibisono, B. Satriawan, Indrayani, Mulyadi, and Damsar, "The Influence Of Transformational Leadership, Job Crafting, Job Satisfaction, And Self-Efficacy On Job Performance Through Work Engagement Of State Civil Apparatus As An Intervening Variable In The Digital Era Of Cases In The Local Government Of Karimun R," *Cent. Eur. Manag. J.*, vol. 30, no. 3, pp. 2336–2693, 2022.

[9]   R. Lee, K. Hoe Looi, M. Faulkner, and L. Neale, "The moderating influence of environment factors in an extended community of inquiry model of e-learning," *Asia Pacific J. Educ.*, vol. 41, no. 1, 2021, doi: 10.1080/02188791.2020.1758032.

[10] M. Spence, "Government and economics in the digital economy," *J. Gov. Econ.*, vol. 3, p. 100020, 2021.

[11] J. O'Connor, S. Ludgate, Q.-V. Le, H. T. Le, and P. D. P. Huynh, "Lessons from the pandemic: Teacher educators' use of digital technologies and pedagogies in Vietnam before, during and after the Covid-19 lockdown," *Int. J. Educ. Dev.*, vol. 103, no. January, pp. 1–10, 2023, doi: 10.1016/j.ijedudev.2023.102942.

[12] W. Reim, P. Yli-Viitala, J. Arrasvuori, and V. Parida, "Tackling business model challenges in SME internationalization through digitalization," *J. Innov. Knowl.*, vol. 7, no. 3, p. 100199, 2022.

[13] V. Sethi *et al.*, "Incidence of Side-effects After Weekly Iron and Folic Acid Consumption Among School-going Indian Adolescents," *Indian Pediatr.*, vol. 56, pp. 33–34, 2019.

[14] H. A. Al-Ababneh, "Researching Global Digital E-Marketing Trends," *Eastern-European J. Enterp. Technol.*, vol. 1, no. 13–115, pp. 26–38, 2022, doi: 10.15587/1729-4061.2022.252276.

[15] A. A. Okunade and A. R. Osmani, "Effects of life expectancy on economic growth: new results using the flexible Box–Cox power transformation model," *Appl. Econ. Lett.*, vol. 27, no. 20, pp. 1681–1684, 2020, doi: 10.1080/13504851.2020.1713976.

[16] Nabilah Mokhtar, Lim Zhi Xuan, H. F. Lokman, and N. H. C. M. Noor Hayati Che Mat, "Theory, Literature Review, and Fun Learning Method Effectiveness in Teaching and Learning," *Int. J. Soc. Sci. Educ. Res. Stud.*, vol. 03, no. 08, pp. 1738–1744, 2023, doi: 10.55677/ijssers/v03i8y2023-30.

[17] A. Aldiab, H. Chowdhury, A. Kootsookos, F. Alam, and H. Allhibi, "Utilization of Learning Management Systems (LMSs) in higher education system: A case review for Saudi Arabia," *Energy Procedia*, vol. 160, pp. 731–737, 2019, doi: 10.1016/j.egypro.2019.02.186.

[18] S. R. Febriani, R. Widayanti, H. Y. Saputra, J. T. Safutri, and K. G. Bedra, "Hello Talk: An Alternative Media for Improving Writing Skills for Higher Education," *Ta'lim al-'Arabiyyah J. Pendidik. Bhs. Arab Kebahasaaraban*, vol. 7, no. 1, 2023, doi: 10.15575/jpba.v7i1.23661.

[19] S. White and M. Gibson, *Reassessing attachment theory in child welfare: A critical appraisal*. Policy Press, 2019.

[20] V. Pavlou, "Art technology integration: digital storytelling as a transformative pedagogy in primary education," *Int. J. Art Des. Educ.*, vol. 39, no. 1, pp. 195–210, 2020.

[21] F. Yunda Sari, Y. Sapta Pranoto, R. Purwasih, J. Agribisnis, and F. Pertanian Perikanan dan Biologi, "Analysis of Salted Fish (Case Study of Rebo Village, Sungailiat District, Bangka District) Analisis Usaha Ikan Asin (Studi Kasus Desa Rebo Kecamatan Sungailiat Kabupaten Bangka)," *J. Integr. Agribus.*, vol. 2, no. 1, pp. 20–36, 2020, doi: 10.33019/jia.v2i1.xxxx.

[22] A. Dabbous, K. A. Barakat, and S. Kraus, "The impact of digitalization on entrepreneurial activity and sustainable competitiveness: A panel data analysis," *Technol. Soc.*, vol. 73, p. 102224, 2023.

[23] A. Nain, A. Banerjee, and N. P. Melkania, "Effects of Green Buildings on the Environment," *Digit. Cities Roadmap IoT-Based Archit. Sustain. Build.*, pp. 477–507, 2021.

[24] M. Rifat, I. Ilham, B. Bayani, and A. Asfahani, "Digital Transformation in Islamic Da'wah: Uncovering the Dynamics of 21st Century Communication," *JIM J. Ilm. Mhs. Pendidik. Sej.*, vol. 8, no. 3, pp. 2933–2941, 2023.

[25] I. Adhicandra, A. Asfahani, T. Tanwir, J. W. Sitopu, and F. Irawan, "Latest Innovations in Internet of Things (IoT): Digital Transformation Across Industries," *Innov. J. Soc. Sci. Res.*, vol. 4, no. 3, pp. 1027–1037, 2024.