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Digitalization, Social Media, and Strategic Innovation in MSMEs: Scopus-Based Bibliometric Trends (2015-2025)

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Abstract

The development of digitalization and social media has become a key factor in driving strategic innovation and competitiveness of Micro, Small, and Medium Enterprises (MSMEs) in various countries. This article aims to map research trends on digitalization, social media, and strategic innovation in MSMEs using a bibliometric approach based on Scopus publication data for the period 2015-2025. Analysis was conducted on 171 articles using VOSviewer software, allowing the identification of publication patterns, leading countries, and the most frequently used keywords. The analysis results show a significant increase in the number of publications, with Indonesia as the most productive country in this topic. Network mapping reveals four main research clusters: digital marketing and e-commerce, social media-based digital transformation, sustainable business development through technology adoption, and entrepreneurship and strategic planning. Further discussion emphasizes the importance of digital literacy, business model innovation, and policy support in strengthening the role of MSMEs in the digital economy era. This article contributes by presenting a comprehensive overview of research developments, while also offering future research directions related to cross-country comparisons and the context of MSME digitalization implementation.

Keywords: Digitalization, Social Media, Strategic Innovation, MSMEs, Bibliometrics

1. Introduction

In the last decade, the development of digital technology has driven major changes in the global business landscape, including in the micro, small, and medium enterprise (MSME) sector. Digitalization is not only considered an operational tool but also a strategic element that can drive innovation, efficiency, and competitive advantage (Aljabari et al., 2024; Vrontis et al., 2022). The increasing adoption of digital channels such as social media, e-commerce, and artificial intelligence (AI) enables MSMEs to move deeper into the market, build closer customer relationships, and create data-driven products and services more quickly (Aghazadeh et al., 2024; Aljabari et al., 2024; Giantari et al., 2022).

However, the digitalization process in MSMEs is not always smooth. Low digital literacy, inadequate technological infrastructure, and absence of policy support are huge issues, especially in developing countries (Bennacer et al., 2025; Qalati et al., 2022). Furthermore, the success of digitalization depends heavily on an organization's readiness to build digital capabilities and its willingness to continuously innovate (Korcsmáros & Csinger, 2022; Mladenova et al., 2025).

Although digitalization has become mainstream in global business strategies, its implementation in the context of micro, small, and medium enterprises (MSMEs) still faces complex challenges that require further study. Various studies have found digital transformation to hold promising potential for MSMEs to expand market access and operational efficiency through social media and digital technology (Eze et al., 2023; Ullah et al., 2023). However, limited resources, lack of digital literacy, and barriers to adoption of technology are major barriers, especially in developing countries (Enshassi et al., 2025; Rodriguez-Vasquez et al., 2025).

In a study by Enshassi et al. (2025), AI adoption in digital marketing among MSMEs is influenced by perceived usefulness (PU) and perceived ease-of-use (PEOU) but is also significantly constrained by inhibiting factors such as budget constraints, managerial capabilities, and resistance to change. Similarly, Fodouop Kouam (2025) noted that although digitalization can improve the efficiency of business communications and interactions, a significant digital divide still exists between MSMEs and large corporations.

Various previous studies have examined the interaction between digitalization and strategic innovation in the MSME sector. However, most of these studies remain fragmented and contextual, limited to qualitative approaches or surveys in specific regions (Ponomarenko et al., 2024; Ragazou et al., 2022). With the tremendous spread of linked literature in recent years, few studies have set up systematically a trend of scientific knowledge in this regard with a bibliometric approach. In this context, mapping scientific trends through bibliometric analysis is highly relevant for evaluating research focus, identifying literature gaps, and formulating appropriate digital strategies for MSMEs. Bibliometrics has the advantage of constructing scientific maps that help identify publication trends, emerging research themes, and suggest future directions of research. This study purposes to fill this gap by analyzing scientific publishing trends on digitalization, social media, and strategic innovation in MSMEs between the years 2015 and 2025.

This study provides mapping of the development of scientific knowledge using a bibliometric approach, as it has the potential to provide a total presentation of the structure, dynamics, and direction of development of a large research field in a systematic and data-driven manner. In this context, the analysis co-occurrence used to identify conceptual relationships between keywords, thereby revealing the thematic structure, dominant research focus, and evolution trends of the topics of digitalization, social media, and strategic innovation in MSMEs (Ponomarenko et al., 2024; Ragazou et al., 2022). This approach allows for the creation of a visual map of the scattered literature and provides a foundation for more focused academic and practical explorations going forward. Through thematic mapping in this field, this study is expected to provide significant conceptual contributions to the development of further research agendas, as well as serve as a guide for MSMEs and policymakers in designing adaptive and innovative digital strategies. This study aims to have a comprehensive understanding of scientific trends in digitalization, social media, and strategic innovation in MSMEs between the years 2015-2025. Specifically, the objectives of this study are:

1. Mapping scientific publication trends on digitalization, social media, and strategic innovation in the context of MSMEs using the Scopus database.
2. Analyzing thematic co-occurrences of the keywords used in literature.
3. Exploring the development of main research clusters and dominant thematic trends surfacing in MSME research in the digital era.
4. Providing strategic insights into understanding the scientific map and future research opportunities.

2. Method

This study uses a bibliometric analysis approach to systematically map and evaluate the intellectual structure of scientific publications discussing digitalization, social media, and strategic innovation in MSMEs during the period 2015 to 2025. Bibliometric analysis is increasingly used in business and communication research due to its ability to analyze large-scale data sets, identify thematic patterns, and track trends and influential contributors in a particular field (Donthu et al., 2021).

As part of bibliometric techniques, this study employed co-occurrence analysis to explore the frequency of keyword co-occurrence and uncover dominant research themes and their conceptual interrelationships (Kumar et al., 2020). This approach enables a comprehensive mapping of scientific knowledge while providing a reliable thematic overview for further research development. The analysis was conducted using VOSviewer software, a widely recognized tool for visualizing bibliometric networks. This tool allows researchers to generate co-occurrence networks, keyword clusters, and thematic evolution maps that collectively provide a comprehensive understanding of the research landscape.

The period 2015-2025 was chosen for its empirical and contextual significance. 2015 marked the initial phase of the growth of literature on MSME digitalization, particularly after the widespread adoption of digital technologies in developing countries. Meanwhile, the post-2020 period has seen a surge in academic interest in this topic, particularly because of the Covid-19 pandemic, which accelerated the adoption of digital technologies and social media by MSMEs across various sectors (Ponomarenko et al., 2024; Vrontis et al., 2022). By extending the scope to 2025, this study captures recent developments in the digital landscape and provides a forward-looking perspective on the direction of scholarly attention on digital transformation issues in the MSME sector.

The bibliometric dataset was collected from the Scopus database, recognized as one of the largest and most credible peer-reviewed scientific journal databases globally. To reflect the core themes of this study, a search was conducted on August 06, 2025, using a Boolean search string, as shown in Table 1 below.

Table 1: Data retrieval constraints for the Scopus database

Database	Scopus
Search field	Title, Abstract, Keywords
Search string	TITLE-ABS-KEY ((“digitaliz*” OR “digitalis*” OR “digital communication*” OR “digital media” OR “digital marketing” OR “digiti*” OR “digital transformation*” OR “digital innovation*” OR “digital technolog*” OR “digital transition”) AND (“marketing communication*” OR “marketing strateg*” OR “integrated marketing communication*” OR “digital marketing” OR “social media marketing” OR “social media” OR “facebook” OR “instagram” OR “facebook” OR “tiktok” OR “online shop*” OR “social media promotion” OR “social media advertising” OR “digital advertis*” OR “online marketing” OR “digital marketing communication” OR “digital business*” OR “digital enterpr*” OR “electronic marketing” OR “search engine marketing” OR “internet marketing” OR “innovative marketing”) AND (“SME*” OR “small and medium enterprise*” OR “small business*” OR “small enterprise*” OR “medium sized business*” OR “mid sized business*” OR “SMB” OR “small to medium business*”))
Open access	All
Years	2015-2025
Author name	All
Subject area	Social science
Publication stage	All
Document type	Article
Source article	All
Affiliation	All
Funding sponsor	All
Country	All
Source type	Journal

Language	English
Data extracted	6 August 2025
Number of publications	149

Description: This bibliometric search strategy was conducted in Scopus with a focus on titles, abstracts, and keywords for the related topics of digitalization, social media, and MSMEs, resulting in 149 selected articles from the period 2015-2025. Data was extracted on August 6, 2025

3. Results

The Scopus dataset was analyzed descriptively to highlight publication trends and distribution across four main categories: publication year, country of publication, and field of study. These four categories provide a comprehensive overview of research output growth, the geographic distribution of scholarly contributions, and the scope of disciplines examining digitalization, social media, and strategic innovation in MSMEs during the 2015-2025 period. This descriptive pattern provides a foundation for understanding academic engagement and will inform the next phase of scientific mapping, specifically keyword co-occurrence analysis and clustering to explore the thematic structure and direction of research development in this field.

3.1 Descriptive Analysis of the Data Set

3.1.1 Documents by Year

Based on Figure 1, the annual publication trend for the 2016-2025 period shows a significant increase in academic attention to the topics of digitalization, social media, and strategic innovation in MSMEs. In 2016, the number of publications was still very low (1 document), but began to increase in 2017 (5 documents). Since 2019, this trend has consistently increased again, with a significant spike after 2020, which resulted in 8 publications.

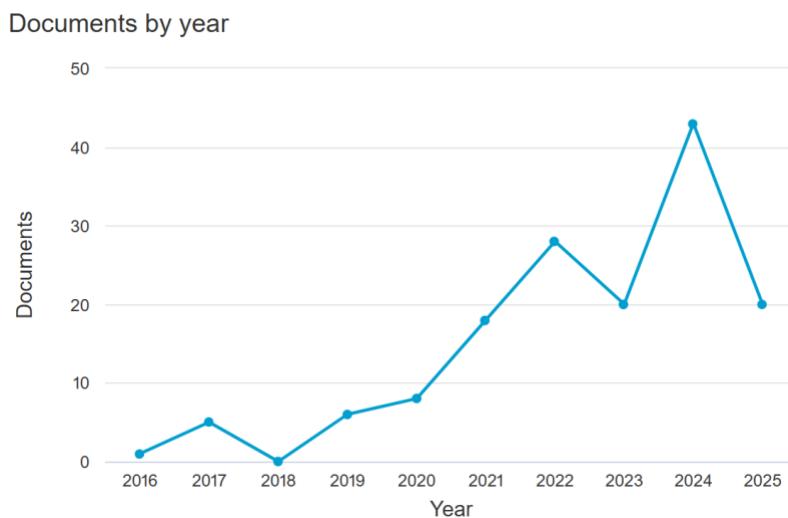


Figure 1: Documents by Year

The most striking growth occurred in 2021-2022, when the number of publications jumped from 18 to 28 documents. The highest peak occurred in 2024 with 43 documents, reflecting a surge in research interest post-pandemic. This increase aligns with the increasing adoption of digital technology by MSMEs, the rapid development of social media platforms, and the need to adapt marketing strategies in the era of digital transformation.

Despite a decline in 2025 (20 documents), the overall pattern suggests that the past decade has been a crucial period in building a foundation for scholarly research on the relationship between digitalization, social media, and strategic innovation. The post-2020 surge is likely influenced by the global push for digital transformation

resulting from the COVID-19 pandemic, which has forced MSMEs to optimize technology and social media to maintain their competitiveness in an increasingly digital marketplace.

3.1.2 Documents by Country

As shown in Figure 2, the distribution of publications by country shows a very clear dominance of Indonesia, which recorded over 40 documents during the research period. This position puts Indonesia far ahead of other countries, significantly ahead of Malaysia, which is in second place with over 15 publications, and India, which recorded around 14 publications.

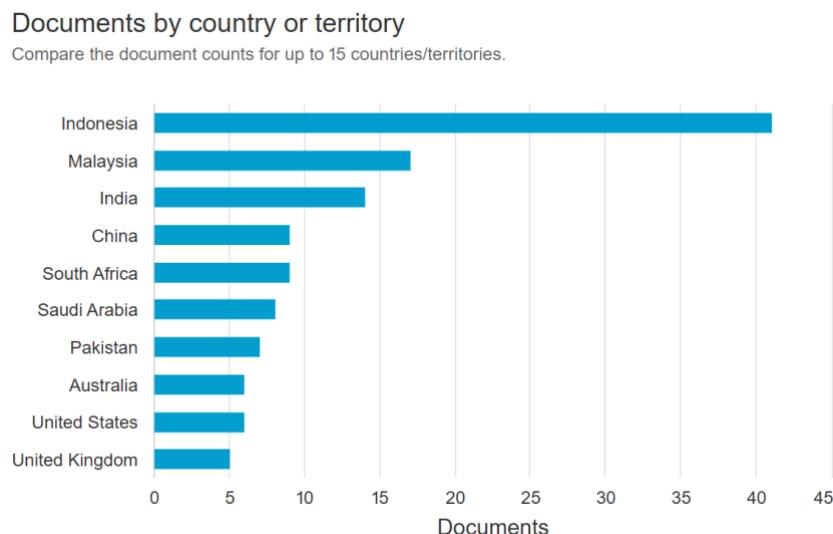


Figure 2: Documents by Country

Indonesia's dominance reflects the high level of attention academics and researchers in the country have paid to digital marketing, social media, and digital communication strategies, particularly in the context of MSMEs. This can be attributed to the rapid development of Indonesia's digital ecosystem, the significant growth of social media users, and the increasing use of digital platforms by small and medium-sized businesses for marketing.

Other countries such as China, South Africa, and Saudi Arabia fall in the middle group, with between 8 and 9 publications, while countries like Pakistan, Australia, the United States, and the United Kingdom contribute relatively less, ranging from 5 to 7 publications. Overall, this pattern suggests that research contributions on this topic are global, but strongly concentrated in Asia, with Indonesia as the primary center of literature production in this area.

3.1.3 Documents by Subject Area

Figure 3 shows the distribution of publications by scientific field. Social sciences significantly dominate, contributing 38.6% of the total publications. This dominance indicates that the research topics analyzed are primarily discussed from a social science perspective, encompassing behavioral studies, societal interactions, and the social implications of technological developments and digital marketing. Overall, this distribution indicates that the analyzed phenomena have cross-disciplinary relevance, but with a focus on social and managerial studies, further enhanced by technical, economic, and environmental analyses.

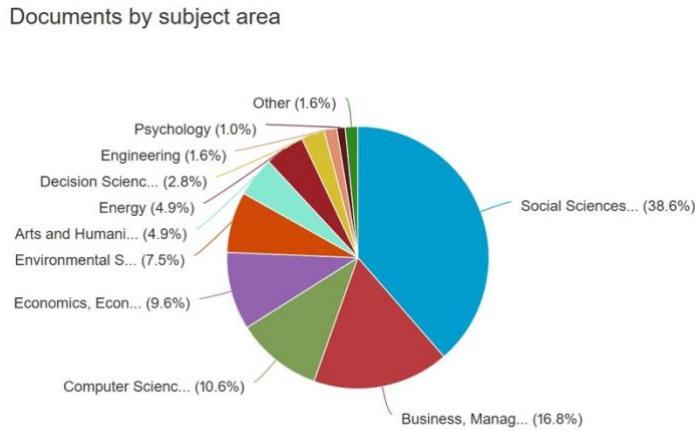


Figure 3: Documents by Subject Area

Business, Management, and Accounting came in second with 16.8%, demonstrating a significant focus on business strategy, organizational management, and the economic implications of digital marketing practices and technology use. Meanwhile, Computer Science (10.6%) and Economics, Econometrics, and Finance (9.6%) were important supporting fields, reflecting a multidisciplinary approach that combines technical, analytical, and financial aspects. Other contributing fields include Environmental Science (7.5%), which is likely related to sustainability studies and green marketing; Arts and Humanities (4.9%) and Energy (4.9%), which demonstrate cross-sectoral research involvement; and Decision Sciences (2.8%), Engineering (1.6%), and Psychology (1.0%), which, while small in size, still provide unique perspectives on the phenomena studied. The presence of the other category (1.6%) also indicates a small diversity of topics not included in the main classifications.

3.2 Results of Co-Occurrence Analysis

3.2.1 Density Visualization

Figure 4 shows a density visualization of keywords appearing in related publications. Yellow indicates high density, meaning the keyword appears frequently and is strongly connected to other keywords. Overall, this density map underscores that the research landscape is dominated by discussions of digital marketing in the small and medium enterprise sector, with close links to issues of digital transformation, social media, and innovation, supported by the development of e-commerce and the sustainability agenda.

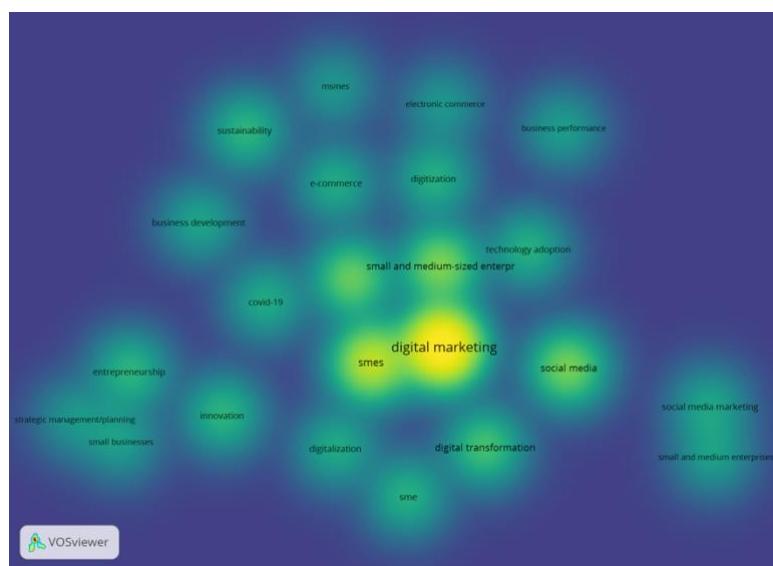


Figure 4: Density visualization

In this map, keywords “digital marketing” occupies the central position with the highest color intensity, indicating that this topic is the focus and is most frequently discussed in the collection of publications analyzed.

In addition, keywords such as “SMEs”, “social media”, “digital transformation”, and “small and medium-sized enterprises” also have a high-density level, representing themes that are often associated with digital marketing. Other keywords that have quite close relevance and connection include “innovation”, “technology adoption”, “e-commerce”, and “sustainability”, which show a multidisciplinary approach in research.

Some thematic keywords such as "covid-19", “entrepreneurship”, and “business performance” emerged with moderate intensity, indicating that while not a primary focus, these topics provide important context, particularly in relation to changing business behavior and post-pandemic technology adoption.

3.2.2 Overlay Visualization

Figure 5 presents an overlay visualization which shows the temporal development of keywords used in publications related to the topic digital marketing in small and medium enterprises (SMEs). The blue color represents the dominant keywords at the beginning of the research period (around 2020-2021), while the yellow color indicates the keywords that have emerged more recently and gained attention in recent years (2024-2025). Overall, this visualization not only maps the interrelationships between topics, but also reveals the evolution of research directions, from a rapid response to the challenges of the pandemic to the use of digital technology as a key pillar of SME development and competitiveness in the post-pandemic era.

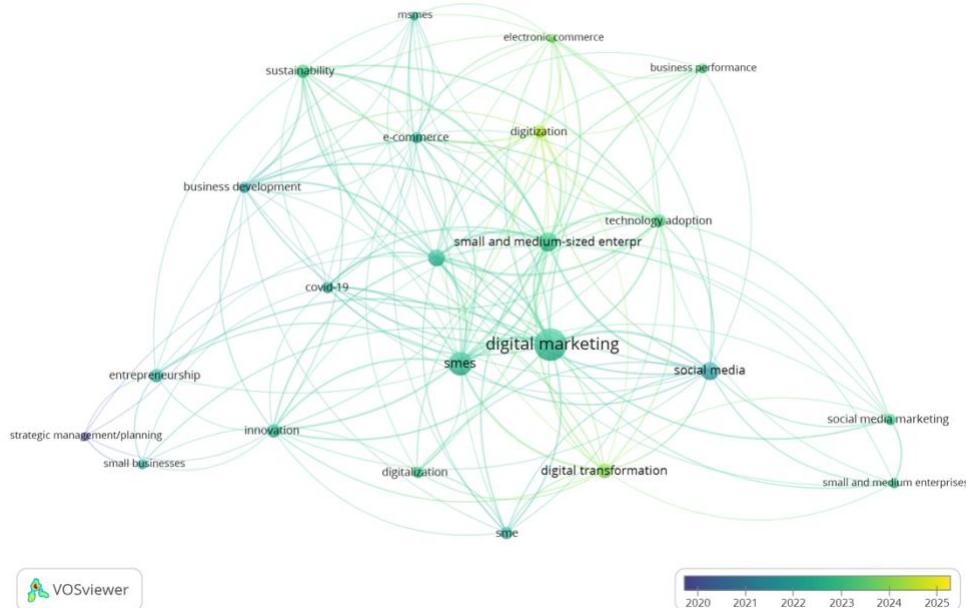


Figure 5: Overlay visualization

Core keywords such as “digital marketing”, “SMEs”, and “social media” have the largest node size, indicating high frequency of occurrence and extensive connectivity with other keywords. Temporal trends show that topics such as “innovation”, “entrepreneurship”, and “covid-19” widely used in the initial period, in line with the dynamics of business changes during the pandemic.

Entering a newer period, there is an increase in attention to keywords “digital transformation”, “technology adoption”, “sustainability”, and “business performance”. This shift indicates a shift in research focus from initial

adaptation to digitalization to long-term strategies that integrate technology, sustainability, and business performance.

3.2.3 Network Visualization

Figure 6 shows network visualization which maps the relationships between keywords into four main cluster themes. Each cluster represents research focuses that are interrelated but have different study emphases.

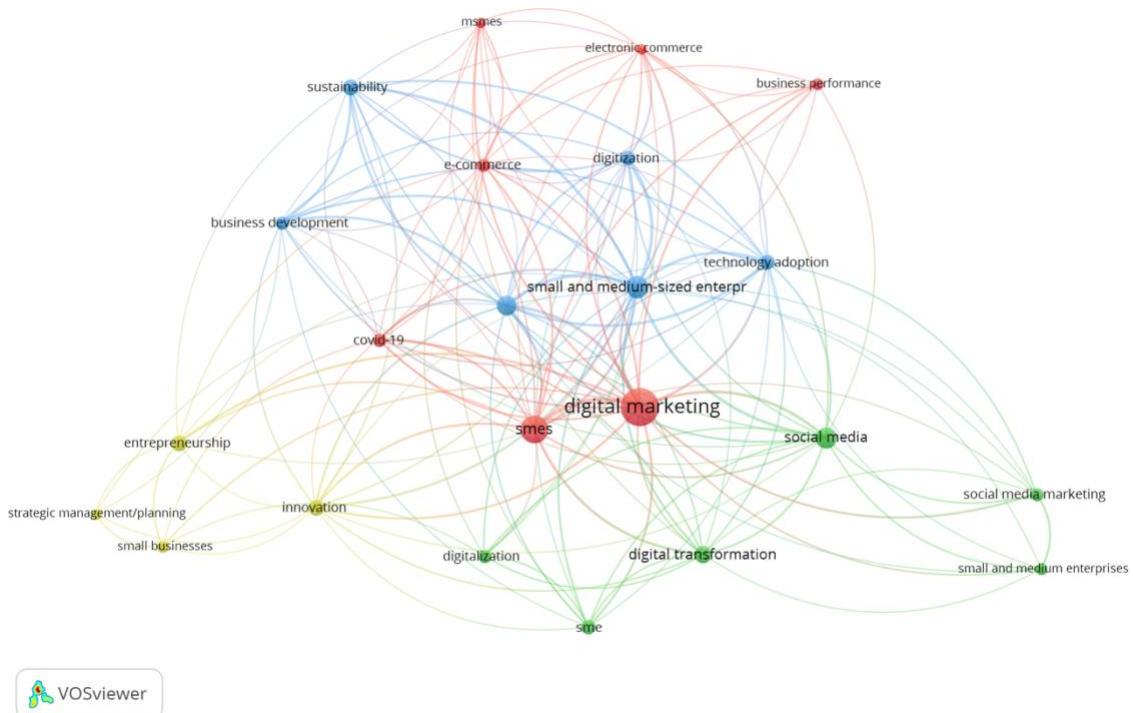


Figure 6: Network visualization

Cluster 1 consists of keywords such as digital marketing, SMEs, MSMEs, e-commerce, electronic commerce, business performance, and covid-19. This cluster describes the research focus on the role of digital marketing and e-commerce in supporting SME business performance, particularly in the context of the challenges of the COVID-19 pandemic. The close correlation between keywords indicates that studies in this cluster tend to highlight digital adaptation strategies to maintain and improve business performance.

Cluster 2 covers digital transformation, digitalization, social media, social media marketing, small and medium enterprises, and the primary focus of this cluster is digital transformation and the use of social media as a marketing channel, which are essential components of modern business strategy. The strong correlation between keywords indicates that research in this area has extensively explored the integration of digital technology into SME operations and marketing strategies.

Cluster 3 consists of business development, digitization, marketing, small and medium-sized enterprise, sustainability, and technology adoption. This cluster focuses on sustainable business development through the adoption of innovative technology and marketing strategies. Keyword dominance sustainability shows a shift in academic attention towards the integration of sustainability principles in the development of technology-based SMEs.

Cluster 4 is related to entrepreneurship, innovation, small businesses, and strategic management/planning. The primary focus of this cluster is on entrepreneurship, innovation, and strategic planning as drivers of small business

competitiveness. The observed relationships indicate that innovation and strategic management are seen as essential foundations for supporting business sustainability and growth in the digital age.

Overall, this network map provides a comprehensive overview of the research landscape related to digital marketing in SMEs, showing how core topics interact and form four complementary areas of study. This analysis also helps identify potential research gaps, particularly at the intersections between clusters which connect sustainability issues, digital transformation, and business performance. The categorization in Table 2 could show how the research is grouped by theme.

Table 2: Categorization of the cluster based on the colour coding

Cluster	Cluster title	Extracted keywords
Cluster 1 (Red)	Digital marketing in supporting SME business performance	Business performance, covid-19, digital marketing, e-commerce, electronic commerce, MSMEs, SMEs
Cluster 2 (Green)	Digital transformation and social media	Digital transformation, digitalization small and medium enterprises, SME, social media, social media marketing
Cluster 3 (Blue)	Sustainable business development and technology adoption	Business development, digitization marketing, small and medium-sized enterprise, sustainability, technology adoption
Cluster 4 (Yellow)	Entrepreneurship, innovation, and strategic planning	Entrepreneurship, innovation, small businesses, strategic management/planning

Description: This table presents the cluster categorization of the co-occurrence analysis results based on color coding in the network visualization. Each cluster is given a title reflecting the thematic focus of the research and is accompanied by a list of keywords extracted from the data.

4. Discussion

4.1 Main Research Cluster and Dominant Thematic Trends

Cluster 1 with the theme of digital marketing and e-commerce for msme performance. This cluster shows a close relationship between the use of digital marketing, e-commerce and improving business performance, especially amidst the challenges of the pandemic. Literature such as Aghazadeh et al. (2024) and Giantari et al. (2022) emphasizes that the ability to integrate digital marketing strategies with data analytics strengthens customer loyalty and expands markets. Bennacer et al. (2025) also show that investing in digital skills and adopting online platforms can improve operational efficiency and market reach, although barriers such as limited capital and digital literacy remain. This finding is consistent with bibliometric results that place the keywords “digital marketing” and “e-commerce” at the center of the network.

Cluster 2 with the theme of digital transformation and social media. This cluster highlights the role of social media as a key channel in the digital transformation strategy of MSMEs. Enshassi et al. (2025) study shows that the success of social media adoption is influenced by perceived usefulness and perceived ease-of-use, despite obstacles such as management resistance and resource constraints. Eze et al. (2023) added that the integration of digital technology into business operations not only increases visibility but also forms interactive relationships that strengthen brand image. This trend is clearly seen in the shift in research focus from a rapid response to the pandemic to a long-term, data-based strategy, and digital transformation.

Cluster 3 with the theme of sustainable business development and technology adoption. The focus of this cluster is how technology adoption supports sustainable business development. Studies such as Mladenova et al. (2025) and Haryanto & Sultoni (2024) emphasize that sustainability is now an integral part of MSME innovation strategies, particularly through the adoption of environmentally friendly technologies, energy efficiency, and digital supply chain optimization. However, as noted by Korcsmáros & Csinger (2022), the success of this strategy

is highly dependent on organizational readiness and public policy support. Bibliometric analysis shows that the keyword “sustainability” has a strong connection with “technology adoption” and “business development”.

Cluster 4 with the theme of entrepreneurship, innovation, and strategic planning. The final cluster focuses on the role of innovation and strategic management in maintaining the competitiveness of MSMEs in the digital era. Fodouop Kouam (2025) study emphasized the importance of continuous innovation and adaptive strategic planning to bridge the digital divide between MSMEs and large corporations. Ponomarenko et al. (2024) research also showed that a strong entrepreneurial orientation encourages more effective use of digital technology, thereby enhancing adaptability to market changes.

4.2 Strategic Insights

4.2.1 Theoretical Implications

The findings strengthen the literature on integration of digital marketing and digital transformation, as well as emphasis on the importance of an organization's ability to integrate, build, and reconfigure internal competencies and external resources to respond to rapid environmental changes. In the context of MSMEs, Troise et al. (2022) showed that three key capabilities, namely digital technology capabilities, relational capabilities, and innovation capabilities, directly contribute to building organizational agility. This agility positively impacts financial performance as well as product and process innovation, proving that the use of digital technology not only increases competitiveness but also serves as a strategic foundation for the sustainability of MSME businesses amidst a turbulent business landscape. This capability is also reflected in the flexibility to adapt digital marketing strategies to market dynamics, utilize real-time customer feedback, and adopt new technologies to maintain relevance and competitiveness. This process is not only reactive but also proactive, where MSMEs need to anticipate market trends and changes in consumer behavior to create sustainable innovation.

In addition, the results of this study also indicate that technology adoption theory like Technology Acceptance Model (TAM) is relevant to understanding the adoption behavior of social media and new technologies by MSMEs, especially in the context of developing countries. The two main constructs of TAM are: perceived usefulness (PU) and perceived ease-of-use (PEOU), has been shown to be a determining factor driving digital technology adoption decisions by MSMEs (Enshassi et al., 2025; Eze et al., 2023). In developing countries, PU value is often influenced by technology's ability to expand markets and increase revenues, while PEOU is closely related to the availability of training, supporting infrastructure, and user interface simplicity. The integration of the dynamic capabilities perspective and TAM provides a more comprehensive conceptual framework: dynamic capabilities explain how organizations adapt, while TAM explains why individuals and organizations decide to adopt or reject technology.

Thus, the relationship between these two frameworks is crucial to explain the bibliometric results: clusters focused on digital transformation, technology adoption, and strategic innovation reflect the synergy between the need for continuous adaptation (dynamic capabilities) and the psychological-perceptual factors influencing technology acceptance (TAM). This integrated approach can serve as a strong theoretical foundation for designing policy interventions and managerial strategies that promote the success of MSMEs' digital transformation.

4.2.2 Practical Implications

For MSME practitioners, this research confirms that the success of digital transformation depends heavily on consistent investment in digital skills development and improvements to information technology infrastructure. Studies by Bennacer et al. (2025) and Aljabari et al. (2024) show that improving employee digital competency and technological infrastructure readiness directly impact operational efficiency, customer service quality, and market share expansion. These investments include not only hardware and software procurement but also ongoing training that can build confidence and adaptability in utilizing new technologies. Giantari et al. (2022) emphasize that without a strong foundation of digital skills, even the implementation of advanced technology will not deliver optimal results for business strategies.

Furthermore, the use of social media needs to be integrated with data analytics for more effective marketing strategies. Findings by Aghazadeh et al. (2024) and Eze et al. (2023) demonstrate that the right combination of social media and data analytics can provide real-time insights into consumer behavior, market trends, and campaign effectiveness. This approach enables MSMEs to craft more personalized marketing messages, optimize promotional budget allocations, and measure the impact of strategies. Utilizations social listening tools also allows businesses to detect changes in consumer preferences more quickly than conventional survey methods.

In the Indonesian context, Mulyana et al. (2020) emphasized that MSMEs have utilized social media platforms such as Instagram, Facebook, and WhatsApp not only as low-cost marketing channels but also as strategic tools to strengthen brand image, build relationships with consumers, and encourage innovative practices. This finding aligns with bibliometric evidence demonstrating Indonesia's leading position in scientific publications on this topic, reflecting how empirical reality on the ground contributes to research output. The study also suggests that social media adoption enhances organizational agility and innovation capabilities in MSMEs, thus providing adaptive strength in facing a highly competitive business environment.

Moreover, sustainability principles need to be a core part of innovation planning, not just an add-on. Mladenova et al. (2025) and Korcsmáros & Csinger (2022) emphasize that integrating sustainability aspects such as energy efficiency, waste reduction, and implementing green supply chains not only meets regulatory and ethical demands but also serves as a source of competitive advantage increasingly appreciated by consumers. Haryanto & Sultoni (2024) adds that today's digital consumers increasingly prioritize brands that consistently demonstrate a commitment to sustainability in every aspect of their products, services, and operations.

Meanwhile, for policymakers, these results highlight the urgency of developing digital literacy training programs specifically tailored to the needs of MSMEs, encompassing basic to advanced skills in digital marketing, data analytics, and cybersecurity. Enshassi et al. (2025) emphasize that such training programs can overcome resistance to technology adoption while improving perceived ease of use. In addition, technology adoption incentives are needed, such as equipment subsidies, tax breaks, or access to soft financing schemes to support digital investment, as proposed by Berbatovci & Buja (2024) to accelerate technology penetration in the MSME sector. Policies that support sustainable innovation are also crucial, including pro-environmental regulations, support for applied research, and strengthening public-private partnerships to develop environmentally friendly digital solutions. This is in line with the findings of Ponomarenko et al. (2024) who emphasize the important role of the government in building an innovative ecosystem that is inclusive, sustainable, and adaptive to technological developments.

4.3 Limitations and Future Research Directions

While this study provides a comprehensive overview of publication trends related to digitalization, social media, and strategic innovation in MSMEs, several limitations should be acknowledged. First, the data scope is limited to English-language publications indexed in the Scopus database. This situation has the potential to lead to language bias and database bias. Thus, the research may not fully reflect the contributions of relevant local or non-English language literature. As noted by Donthu et al. (2021), the limitation of a single database source can affect the representation of findings and overlook important contextual perspectives, particularly from developing countries. This is relevant because several studies in the reference folder, such as Giantari et al. (2022) and Hadiyati et al. (2024), indicate that local publications often contain more applicable insights regarding MSME practices at the regional level.

Second, the analytical approach used in this study is descriptive, meaning the results focus more on mapping the research landscape than testing causal relationships between variables. This approach is indeed appropriate for the purpose of scientific mapping but does not allow for conclusions to be drawn regarding the direct influence between factors as suggested by Bennacer et al. (2025) and Eze et al. (2023) in their quantitative studies. This limitation opens opportunities for further research to combine bibliometrics with inferential analysis methods or structural equation modeling to verify the relationship between variables such as technology adoption, business performance, and sustainability.

Third, the selection of keywords in search string. Even though it is designed comprehensively, it still has risks of keyword omission bias. Some themes that may be relevant, such as the integration of artificial intelligence in MSME marketing or the role of platform economy in digital transformation, may not yet be fully addressed. Studies such as Aghazadeh et al. (2024) and Berbatovci & Buja (2024) emphasize the importance of these themes, so further analysis should consider them in research design.

For further research, it is recommended to expand the databases used, for example by combining Scopus with Web of Science or Dimensions, as recommended by Kumar et al. (2020) to increase the coverage and validity of the results. In addition, the integration of approaches systematic literature review can provide analytical depth by identifying and critically evaluating key literature in each cluster. Future research could also explore the intersections between clusters identified in the bibliometric results, for example, the relationship between sustainability (Cluster 3) and digital business performance (Cluster 1), or between strategic innovation (Cluster 4) and social media utilization (Cluster 2). Studies such as Mladenova et al. (2025) and Ponomarenko et al. (2024) showed that the intersections between these themes are often the most dynamic areas of MSME innovation. An empirical approach with cross-country case studies could also enrich understanding of how different social, economic, and cultural contexts influence digitalization adoption in MSMEs.

Additionally, descriptive results by country indicate that Indonesia dominates the number of publications on the topics of digitalization, social media, and strategic innovation in MSMEs, far surpassing other countries such as Malaysia and India. This fact indicates that the Indonesian academic ecosystem is very active in highlighting the dynamics of MSME digital transformation, in line with the rapid growth of social media users and increasing government policies encouraging economic digitalization. However, the dominance of publications from one country also raises questions about global representation in this field. Therefore, future research directions could further examine the factors driving research productivity in Indonesia and compare them with other countries. This cross-country comparative approach is important to understand whether MSME digitalization trends are contextual or universal, as confirmed by literature such as Eze et al. (2023) and Berbatovci & Buja (2024), which show significant variations in technology readiness and digital adoption strategies across regions. Thus, future research will not only enrich the global academic perspective but also provide practical insights into how national contexts influence the direction and success of MSME digital transformation.

5. Conclusion

This article shows that research on digitalization, social media, and strategic innovation in MSMEs has experienced a significant increase, especially after the pandemic period, with a strong focus on digital marketing, social media-based digital transformation, technology adoption for sustainability, and entrepreneurship and strategic planning. Co-occurrence visualization confirms four complementary thematic clusters: from the role of digital marketing and e-commerce on business performance, to the integration of digital transformation, technology adoption, and innovation orientation as the foundation of MSME competitiveness in the digital economy era.

Conceptually and practically, these findings confirm that strengthening digital literacy, business model innovation, and policy support are prerequisites for MSMEs to not simply “use” technology, but to be able to orchestrate technology and social media as strategic capabilities for performance and sustainability. On the other hand, the limited scope (Scopus database and English-language publications) and the predominantly descriptive nature of the analysis open up opportunities for further research, such as expanding the database, deepening systematic reviews in each cluster, examining relationships between themes (for example sustainability and digital performance), and cross-country comparative studies to more fully capture the varied contexts of MSME digital adoption.

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References

Aghazadeh, H., Zandi, F., Amoozad Mahdiraji, H., & Sadraei, R. (2023). Digital Transformation and SME Internationalisation: Unravelling the Moderated-Mediation role of Digital Capabilities, Digital Resilience and Digital Maturity. *Journal of Enterprise Information Management*. <https://doi.org/10.1108/JEIM-02-2023-0092>

Aljabari, M., Althuwaini, S., Bouguerra, A., Sharabati, A. A., Allahham, M., & Allan, M. (2024). The impact of digital marketing strategies on innovation: The mediating role of AI: A critical study of SMEs in the KSA market. *International Journal of Data and Network Science*, 8(4), 2029–2036. <https://doi.org/10.5267/j.ijdns.2024.7.006>

Bennacer, M. K., Mahdi, E. M. E., & Lahmouchi, M. (2025). Digital transformation in Moroccan SMEs: Overcoming barriers and achieving growth. *TEM Journal*, 1269–1278. <https://doi.org/10.18421/tem142-28>

Berbatovci, I., & Buja, S. (2024). Impact of digital marketing on the growth of SME manufacturing businesses in Kosovo. *Asian Economic and Financial Review*, 14(7), 527–544. <https://doi.org/10.55493/5002.v14i7.5131>

Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, 133, 285–296. <https://doi.org/10.1016/j.jbusres.2021.04.070>

Enshassi, M., Nathan, R. J., Soekmawati, & Hishamuddin Ismail. (2025). Unveiling barriers and drivers of AI adoption for digital marketing in Malaysian SMEs. In *Journal of Open Innovation: Technology, Market, and Complexity* (Vol. 11, p. 100519). <https://doi.org/10.1016/j.joitmc.2025.100519>

Eze, S. C., Chinedu-Eze, V. C., Awa, H. O., & Diarah, S. I. (2023). Critical issues facing SMEs' actors in the adoption of emerging Digital Marketing Technology (EDMT). *SAGE Open*, 13(4). <https://doi.org/10.1177/21582440231214847>

Giantari, I. G. a. K., Yasa, N. N. K., Suprasto, H. B., & Rahmayanti, P. L. D. (2021). The role of digital marketing in mediating the effect of the COVID-19 pandemic and the intensity of competition on business performance. *International Journal of Data and Network Science*, 6(1), 217–232. <https://doi.org/10.5267/j.ijdns.2021.9.006>

Hadiyati, E., Mulyono, S., & Gunadi, N. (2024). Digital marketing as a determinant variable for improving the business performance. *Innovative Marketing*, 20(3), 28–41. [https://doi.org/10.21511/im.20\(3\).2024.03](https://doi.org/10.21511/im.20(3).2024.03)

Haryanto, R., & Sulton, M. H. (2024). Marketing and IT capability as mediators: The role of digital marketing and orientation on SMEs marketing performance. *International Journal of Management and Sustainability*, 13(4), 808–817. <https://doi.org/10.18488/11.v13i4.3899>

Korcsmáros, E., & Csinger, B. (2022). Sustainable competitiveness in the case of SMEs—Opportunities provided by social media in an international comparison. *Sustainability*, 14(19), 12505. <https://doi.org/10.3390/su141912505>

Fodouop Kouam, A. W. (2025). Toward Digital Transformation: Insights into Chinese Cross-Border E-Commerce SMEs During the COVID-19 Pandemic and the Post-Pandemic Era. *SAGE Open*, 15(1). <https://doi.org/10.1177/21582440251318792>

Kumar, S., Spais, G. S., Kumar, D., & Sureka, R. (2019). A Bibliometric History of the Journal of Promotion Management (1992–2019). *Journal of Promotion Management*, 26(1), 97–120. <https://doi.org/10.1080/10496491.2019.1685622>

Mladenova, I., Vladimirov, Z., & Harizanova, O. (2025). Digital transformation, organisational capabilities, and SME performance - size matters. *Eastern Journal of European Studies*, 16(1), 216–238. <https://doi.org/10.47743/ejes-2025-0110>

Mulyana, A., Briandana, R., & Rekarti, E. (2020). ICT and Social Media as a Marketing Communication Platform in Facilitating Social Engagement in the Digital Era. In *International Journal of Innovation, Creativity and Change*. www.ijicc.net (Vol. 13, Issue 5). www.ijicc.net

Ponomarenko, I., Kovalov, B. L., Melnyk, M. (2024). Business Innovations and Digital Transformation: Trend, Comparative and bibliometric analysis. *Business Ethics and Leadership*, 8(1), 74–92. [http://doi.org/10.61093/bel.8\(1\).74-92.2024](http://doi.org/10.61093/bel.8(1).74-92.2024)

Qalati, S. A., Ostic, D., Sulaiman, M. a. B. A., Gopang, A. A., & Khan, A. (2022). Social media and SMEs' performance in developing countries: Effects of Technological-Organizational-Environmental Factors on the adoption of social media. *SAGE Open*, 12(2). <https://doi.org/10.1177/21582440221094594>

Ragazou, K., Passas, I., & Sklavos, G. (2022). Investigating the Strategic Role of Digital Transformation Path of SMEs in the era of COVID-19: A bibliometric analysis using R. *Sustainability*, 14(18), 11295. <https://doi.org/10.3390/su141811295>

Rodriguez-Vasquez, J. G., D'Ancona, F. C., Bolanos-Burgos, F., & Sanchez-Riofrio, A. M. (2025). Mapping trends in digital business research: from bit transformation to sustainable data-centric enterprises. *Humanities and Social Sciences Communications*, 12(1). <https://doi.org/10.1057/s41599-025-05082-6>

Sharabati, A. A., Ali, A. a. A., Allahham, M. I., Hussein, A. A., Alheet, A. F., & Mohammad, A. S. (2024). The Impact of Digital Marketing on the performance of SMEs: An analytical study in light of Modern digital Transformations. *Sustainability*, 16(19), 8667. <https://doi.org/10.3390/su16198667>

Ullah, I., Khan, M., Rakhamonov, D. A., Bakhritdinovich, K. M., Jacquemod, J., & Bae, J. (2023). Factors affecting digital marketing adoption in Pakistani small and medium enterprises. *Logistics*, 7, 41. <https://doi.org/10.3390/logistics7030041>

Vrontis, D., Chaudhuri, R., & Chatterjee, S. (2022). Adoption of digital technologies by SMEs for sustainability and value creation: Moderating role of entrepreneurial orientation. *Sustainability*, 14(13), 7949. <https://doi.org/10.3390/su14137949>