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Research Trends in Digital Marketing and Consumer Behavior in the MSME Sector: A Bibliometric Study

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ABSTRACT

This study aims to examine the evolution, intellectual structure, and future research directions of digital marketing and consumer behavior in the Micro, Small, and Medium Enterprises (MSMEs) sector using a bibliometric approach. Bibliographic data were retrieved from the Scopus database using keywords related to *digital marketing*, *consumer behavior*, and *MSMEs*. The dataset was analyzed using VOSviewer and Biblioshiny (Bibliometrix-R) to identify publication trends, author productivity, source journals, countries, institutional collaboration, co-occurrence networks, co-citation analysis, and bibliographic coupling. The findings reveal a substantial increase in publications addressing digital marketing and consumer behavior in the MSME sector, particularly following the acceleration of digital transformation after the COVID-19 pandemic. The dominant research themes include social media marketing, electronic word of mouth (eWOM), consumer trust, purchase intention, e-commerce, digital transformation, and customer engagement. Furthermore, network visualization indicates a growing level of international collaboration among researchers and institutions, reflecting the interdisciplinary nature of digital marketing research. This study contributes to the literature by providing a comprehensive mapping of the knowledge structure, identifying influential authors, journals, and emerging research themes, while highlighting existing research gaps and future research opportunities. The findings offer valuable insights for academics, practitioners, and policymakers in designing future research agendas and developing evidence-based digital marketing strategies to enhance the competitiveness and long-term sustainability of MSMEs in the digital economy.

Keywords: Bibliometric Analysis, Digital Marketing, Consumer Behavior, MSMEs, VOSviewer, Bibliometrix.

ABSTRAK

Penelitian ini bertujuan untuk menganalisis perkembangan, struktur intelektual, dan arah penelitian mengenai *digital marketing* dan *consumer behavior* pada sektor Usaha Mikro, Kecil, dan Menengah (UMKM) melalui pendekatan bibliometrik. Data penelitian diperoleh dari basis data Scopus dengan menggunakan kata kunci yang berkaitan dengan *digital marketing*, *consumer behavior*, dan *MSMEs*. Data bibliografi dianalisis menggunakan perangkat lunak VOSviewer dan Biblioshiny (Bibliometrix-R) untuk mengidentifikasi tren publikasi, produktivitas penulis, sumber

publikasi, negara, organisasi, jaringan kolaborasi, analisis ko-kata (*co-occurrence*), ko-sitasi (*co-citation*), dan *bibliographic coupling*. Hasil analisis menunjukkan bahwa publikasi mengenai digital marketing dan perilaku konsumen pada sektor UMKM mengalami peningkatan yang signifikan dalam beberapa tahun terakhir, terutama setelah percepatan transformasi digital pascapandemi COVID-19. Tema penelitian didominasi oleh *social media marketing*, *electronic word of mouth (eWOM)*, *consumer trust*, *purchase intention*, *e-commerce*, *digital transformation*, dan *customer engagement*. Selain itu, analisis jaringan memperlihatkan semakin kuatnya kolaborasi internasional antarpeleliti dan institusi dalam mengembangkan kajian pemasaran digital berbasis teknologi. Penelitian ini memberikan kontribusi akademik dengan memetakan perkembangan ilmu pengetahuan secara komprehensif sekaligus mengidentifikasi kesenjangan penelitian yang masih terbuka. Temuan ini diharapkan menjadi referensi bagi peneliti, praktisi, dan pembuat kebijakan dalam merumuskan agenda riset serta strategi pengembangan pemasaran digital yang mendukung daya saing dan keberlanjutan UMKM di era ekonomi digital.

Kata kunci: Bibliometric Analysis, Digital Marketing, Consumer Behavior, MSMEs, VOSviewer, Bibliometrix.



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A.INTRODUCTION

The rapid development of digital technologies has significantly transformed the global marketing landscape, reshaping the way businesses communicate with consumers and create competitive advantages. The widespread adoption of the internet, social media platforms, mobile applications, and e-commerce ecosystems has enabled organizations to implement more interactive, personalized, and data-driven marketing strategies than ever before. These technological advancements have also altered consumer behavior, allowing individuals to search for information, compare products, evaluate online reviews, and make purchasing decisions through digital platforms. Consequently, digital marketing has become a strategic business function rather than merely a promotional tool, supporting customer relationship management, market expansion, and sustainable business growth. As digital transformation accelerates across industries, understanding the evolving relationship between digital marketing and consumer behavior has become an increasingly important research agenda for both academics and practitioners (Kotler et al., 2021; Chaffey & Ellis-Chadwick, 2022; Tuten & Solomon, 2023).

Micro, Small, and Medium Enterprises (MSMEs) represent one of the most important pillars of economic development worldwide due to their substantial contribution to employment

generation, innovation, and national economic growth. In developing countries, including Indonesia, MSMEs account for the majority of business entities and play a vital role in strengthening local economies and reducing poverty. However, increasing market competition and rapid technological changes require MSMEs to continuously improve their competitiveness by adopting digital technologies and innovative marketing strategies. International organizations have emphasized that digital transformation enables MSMEs to improve operational efficiency, access broader markets, strengthen customer relationships, and increase business resilience in an increasingly competitive environment. Consequently, digital marketing has become an essential instrument for supporting MSME sustainability and facilitating inclusive economic development in the digital era (OECD, 2023; OECD, 2024; World Bank, 2023).

The increasing importance of digital marketing has stimulated substantial growth in academic research examining consumer behavior within digital business environments. Scholars have investigated various topics, including social media marketing, electronic word of mouth (eWOM), customer engagement, online trust, purchase intention, influencer marketing, artificial intelligence, and digital transformation. The interdisciplinary nature of this research reflects the integration of marketing, information systems, consumer psychology, entrepreneurship, and business analytics in understanding how consumers interact with digital technologies. Furthermore, the growing volume of publications indicates that digital marketing has become one of the most dynamic research fields in contemporary business studies. Nevertheless, the rapid expansion of scientific publications has also created challenges in identifying influential authors, dominant research themes, collaborative networks, and emerging research trends. Therefore, systematic knowledge mapping has become increasingly necessary to understand the intellectual structure and evolution of this research domain (Donthu et al., 2021; Aria & Cuccurullo, 2017; Zupic & Čater, 2015).

Bibliometric analysis has emerged as one of the most effective quantitative approaches for evaluating scientific development, identifying research trends, and visualizing knowledge structures within a particular discipline. Unlike conventional literature reviews, bibliometric methods utilize citation analysis, co-authorship networks, keyword co-occurrence, co-citation analysis, and bibliographic coupling to objectively examine relationships among scientific publications. The integration of software tools such as VOSviewer and Bibliometrix has

significantly improved researchers' ability to analyze large bibliographic datasets and identify emerging research themes with greater accuracy. Despite the increasing number of studies investigating digital marketing and consumer behavior, comprehensive bibliometric analyses focusing specifically on the MSME sector remain relatively limited. Accordingly, this study aims to map the development of research on digital marketing and consumer behavior in the MSME sector, identify influential research themes and collaboration patterns, and provide future research directions that support sustainable digital transformation and business competitiveness (van Eck & Waltman, 2010; Donthu et al., 2021; Aria & Cuccurullo, 2017).

Although the literature on digital marketing and consumer behavior has expanded considerably, several research gaps remain unresolved. Most previous studies have focused on examining causal relationships between specific variables, such as social media marketing, electronic word of mouth (eWOM), customer engagement, online trust, and purchase intention, using quantitative survey methods. While these studies provide valuable empirical evidence, they offer limited understanding of the broader intellectual structure and thematic evolution of the field. Moreover, bibliometric investigations have predominantly explored digital marketing or consumer behavior separately, whereas comprehensive analyses integrating both topics within the MSME context remain scarce. Considering the increasing role of MSMEs in driving digital economic growth, it is essential to systematically identify influential publications, leading authors, collaborative networks, and emerging research themes. Such knowledge mapping can assist researchers in recognizing research gaps while supporting policymakers and practitioners in developing evidence-based digital marketing strategies (Donthu et al., 2021; Lim et al., 2022; Ismagilova et al., 2020).

Recent developments in digital technologies have also introduced new research directions that extend beyond traditional online marketing practices. Artificial intelligence, big data analytics, machine learning, blockchain technology, social commerce, influencer marketing, and personalized recommendation systems have become increasingly integrated into digital marketing strategies for MSMEs. These innovations enable businesses to better understand consumer preferences, predict purchasing behavior, improve customer experiences, and optimize marketing performance through data-driven decision-making. Simultaneously, consumers have become more dependent on digital information, online reviews, and peer-generated content when evaluating

products and services. Consequently, research has gradually shifted from investigating digital communication alone toward exploring intelligent digital ecosystems that integrate technological innovation with customer relationship management. Mapping these emerging themes is therefore important for identifying future research opportunities and understanding how digital transformation continues to reshape consumer behavior and MSME competitiveness (Kotler et al., 2021; Tuten & Solomon, 2023; OECD, 2024).

From a methodological perspective, bibliometric analysis provides a rigorous and objective approach for evaluating scientific productivity, identifying influential journals and authors, and visualizing relationships among research topics. Unlike traditional narrative reviews, bibliometric techniques apply quantitative indicators such as citation analysis, co-authorship networks, co-occurrence analysis, co-citation analysis, and bibliographic coupling to reveal the intellectual foundations and evolutionary patterns of a scientific discipline. The integration of VOSviewer and Bibliometrix has significantly enhanced the capability of researchers to visualize complex bibliographic networks and detect emerging research clusters with greater precision. Consequently, bibliometric studies have become increasingly important in business and management research because they enable scholars to synthesize large volumes of scientific literature systematically while identifying knowledge gaps that require further investigation (Aria & Cuccurullo, 2017; van Eck & Waltman, 2010; Donthu et al., 2021).

Based on these considerations, this study aims to examine global research trends in digital marketing and consumer behavior within the MSME sector through a comprehensive bibliometric analysis. Specifically, the study analyzes publication growth, leading authors, influential journals, institutional and international collaboration, keyword co-occurrence, co-citation networks, bibliographic coupling, and emerging research themes using VOSviewer and Bibliometrix. By providing a systematic mapping of the existing literature, this research contributes to the development of digital marketing scholarship while identifying promising directions for future investigation. Furthermore, the findings are expected to provide valuable insights for academics, policymakers, and MSME practitioners in designing innovation-driven digital marketing strategies that strengthen consumer engagement, enhance business competitiveness, and promote sustainable economic development in the digital era (Donthu et al., 2021; OECD, 2024; UNCTAD, 2024).

B.RESEARCH METHOD

This study employed a bibliometric research design to systematically examine the development, intellectual structure, and emerging trends of research on digital marketing and consumer behavior in the Micro, Small, and Medium Enterprises (MSME) sector. Bibliometric analysis is a quantitative approach that enables researchers to evaluate scientific publications, identify influential authors, journals, institutions, and countries, and visualize relationships among research themes using citation-based indicators (Donthu et al., 2021). The bibliographic data were retrieved from the Scopus database, one of the largest and most reliable international scientific databases. The search strategy was conducted using keywords related to *digital marketing*, *consumer behavior*, and *MSMEs*, while limiting the document type to journal articles written in English. Duplicate records, incomplete metadata, and irrelevant publications were excluded through a screening process to ensure the quality and consistency of the dataset.

The collected bibliographic records were exported in CSV format and analyzed using Bibliometrix/Biblioshiny and VOSviewer version 1.6.20. Bibliometrix was utilized to generate descriptive bibliometric indicators, including annual publication growth, leading authors, productive institutions, countries, source journals, citation analysis, and collaboration networks. Meanwhile, VOSviewer was employed to construct scientific knowledge maps through keyword co-occurrence, co-authorship, co-citation, and bibliographic coupling analyses. These visualization techniques enabled the identification of thematic clusters, research relationships, and the evolution of research topics over time, thereby providing a comprehensive understanding of the intellectual landscape of digital marketing and consumer behavior research in the MSME sector (Aria & Cuccurullo, 2017).

The analysis was conducted in three sequential stages. First, descriptive bibliometric analysis was performed to evaluate publication productivity and citation performance. Second, science mapping techniques were applied to examine collaboration patterns among authors, institutions, and countries, as well as to identify the conceptual structure of the research field through keyword co-occurrence networks. Finally, overlay and density visualizations were interpreted to identify emerging research themes, dominant topics, and potential directions for future studies. This systematic bibliometric approach provides an objective and comprehensive

overview of the evolution of digital marketing and consumer behavior research while identifying knowledge gaps that can serve as the basis for future academic investigations and practical decision-making in the MSME sector.

Figure 1. Conceptual Framework of the Bibliometric Study

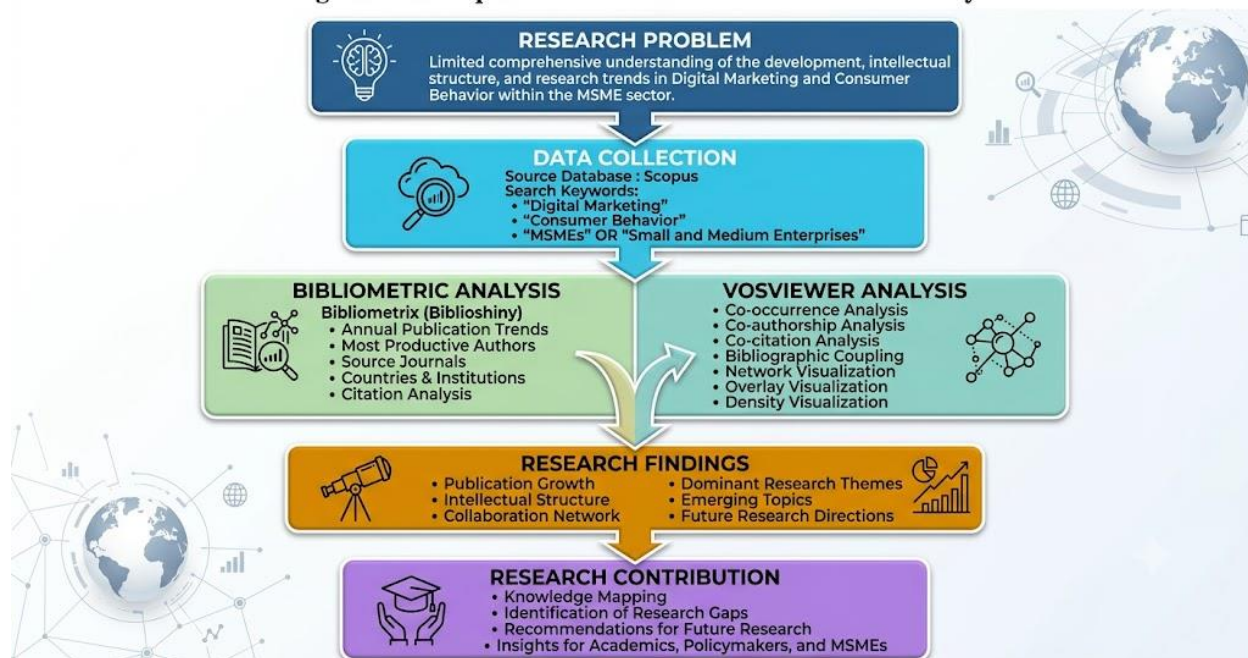


Figure 1. Conceptual Framework of the Bibliometric Study

Figure 1 outlines the structured methodological workflow adopted for the bibliometric analysis, tracing the progression from initial problem formulation to final research contributions. The process begins with the Research Problem, which highlights the limited comprehensive understanding of intellectual structures and trends regarding Digital Marketing and Consumer Behavior in the MSME sector. Next, the Data Collection phase specifies the retrieval of academic literature from the Scopus database using targeted search keywords including "Digital Marketing", "Consumer Behavior", and "MSMEs" or "Small and Medium Enterprises". The workflow then transitions into the core analytical stage, split into two complementary approaches: Bibliometric Analysis (utilizing Bibliometrix/Biblioshiny for publication trends, author productivity, source journals, and citation dynamics) and VOSviewer Analysis (focusing on co-occurrence, co-authorship, bibliographic coupling, and network visualizations). The insights generated from these tools coalesce into the Research Findings, which encompass publication growth patterns, intellectual structure, collaboration networks, dominant research themes, emerging topics, and future research directions. Finally, these findings lead to the Research Contribution, which includes knowledge mapping, identification of research gaps, recommendations for future research, and insights for academics, policymakers, and MSMEs.

collaboration networks, dominant themes, emerging topics, and future trajectories. Ultimately, these results deliver meaningful Research Contributions, providing systematic knowledge mapping, identification of key research gaps, and practical recommendations for academics, policymakers, and MSME stakeholders.

C.RESULTS AND DISCUSSION

➤ Results

The research findings are presented based on a bibliometric analysis of scientific publications concerning digital marketing and consumer behavior in the micro, small, and medium enterprises (MSME) sector retrieved from the Scopus database. The analysis was conducted systematically using two primary bibliometric tools, namely Publish or Perish (PoP) and VOSviewer. Publish or Perish was employed to retrieve publications, extract bibliographic metadata, and analyze key bibliometric indicators, including the number of publications, total citations, average citations per year, h-index, g-index, and other scientific impact metrics. Subsequently, the extracted metadata were processed using VOSviewer to visualize the intellectual structure of the research field through network visualization, overlay visualization, and density visualization. The integration of these analytical tools enables a comprehensive assessment of the evolution and scientific influence of research on digital marketing and consumer behavior within the MSME sector.

Furthermore, the bibliometric analysis identifies publication trends over time, the most productive authors, leading journals, influential institutions, and countries contributing significantly to the field. It also examines patterns of scientific collaboration through co-authorship networks, citation relationships, and keyword co-occurrence to reveal the dominant research themes shaping the development of digital marketing and consumer behavior studies in MSMEs. This approach provides a comprehensive overview of the global research landscape while identifying emerging topics, research gaps, and future research opportunities related to digital transformation, social media marketing, electronic word of mouth, e-commerce adoption, consumer engagement, and the competitiveness of MSMEs. The findings are presented through

tables, publication trend graphs, citation analyses, and network visualizations to facilitate the interpretation of research dynamics and the intellectual structure of this rapidly expanding field, thereby providing valuable insights for researchers, practitioners, and policymakers in advancing digital marketing strategies for the MSME sector.

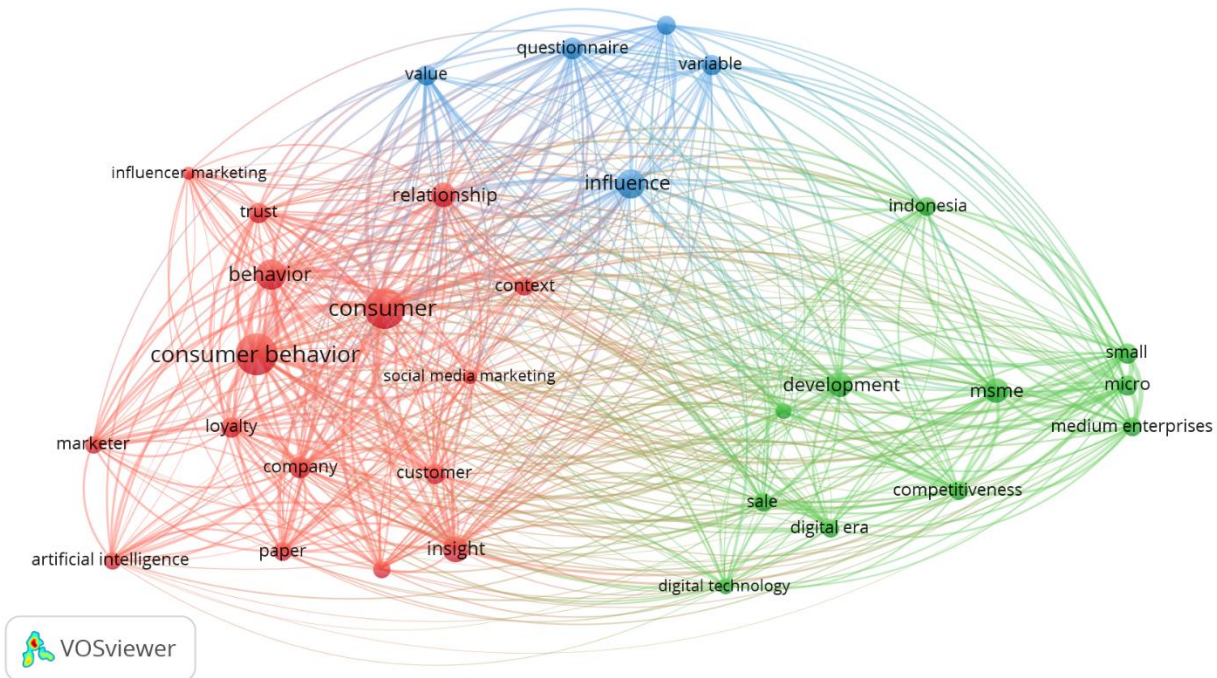


Figure 2. Network Visualization of Keyword Co-occurrence in Digital Marketing and Consumer Behavior Research within the MSME Sector

Figure 2 illustrates the keyword co-occurrence network generated using VOSviewer, revealing the intellectual structure and thematic relationships within research on digital marketing and consumer behavior in the MSME sector. The visualization identifies three major research clusters, each represented by different colors. The red cluster is centered on the keyword *consumer behavior*, which appears as one of the largest and most interconnected nodes, indicating its dominant role in the literature. This cluster is closely associated with keywords such as *consumer*, *behavior*, *trust*, *loyalty*, *customer*, *social media marketing*, *influencer marketing*, and *artificial intelligence*. The strong connections among these keywords suggest that previous studies have primarily focused on understanding how digital marketing strategies influence consumer attitudes,

trust, loyalty, and purchasing behavior. The prominence of *consumer behavior* demonstrates that consumer-centered perspectives remain the primary research focus in digital marketing studies, while emerging technologies such as artificial intelligence and influencer marketing have become increasingly integrated into contemporary marketing research.

The green cluster emphasizes the role of MSMEs in digital transformation and business competitiveness, with *MSME* serving as the central keyword connected to *development*, *competitiveness*, *digital technology*, *digital era*, *sales*, *Indonesia*, and *small and medium enterprises*. This cluster highlights that research has increasingly examined digital marketing as a strategic instrument for improving organizational performance and sustainable business development among MSMEs. Meanwhile, the blue cluster consists of methodological keywords, including *questionnaire*, *variable*, *value*, and *influence*, reflecting the predominance of quantitative survey-based approaches in this research field. The dense interconnections among the three clusters indicate that digital marketing research in the MSME context is highly interdisciplinary, integrating perspectives from consumer behavior, business development, and empirical quantitative methods. Overall, the network visualization demonstrates that future research opportunities lie in integrating technological innovation, consumer analytics, artificial intelligence, and sustainable digital business strategies to strengthen the competitiveness and resilience of MSMEs in the evolving digital economy.

The overlay visualization also reveals several emerging research trends that have attracted increasing scholarly attention in recent years. Keywords such as *artificial intelligence*, *influencer marketing*, *trust*, *loyalty*, and *competitiveness*, represented by green-to-yellow colors, indicate the growing integration of advanced digital technologies and consumer relationship management into MSME marketing research. These emerging topics reflect a shift from traditional digital marketing practices toward intelligent, data driven, and customer-centric marketing strategies supported by artificial intelligence, social media influencers, and personalized consumer engagement. Furthermore, the strong interconnections between recently developed keywords and established themes suggest that future research is moving toward interdisciplinary perspectives that combine technological innovation, digital transformation, consumer analytics, and sustainable business development. Therefore, the overlay visualization highlights promising research opportunities for integrating artificial intelligence, digital trust, and emerging digital marketing technologies to enhance consumer engagement, business competitiveness, and the long-term sustainability of MSMEs in the digital economy.

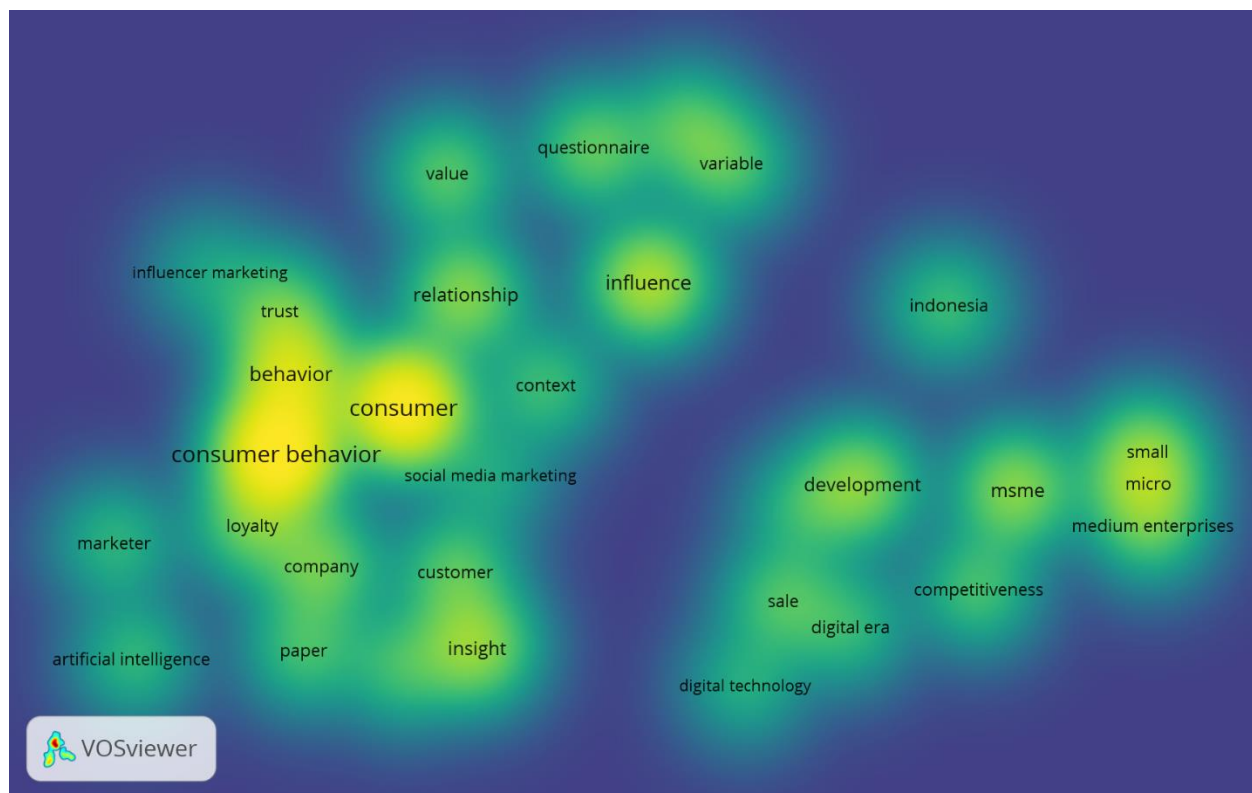


Figure 4. Density Visualization of Research Themes in Digital Marketing and Consumer Behavior within the MSME Sector

Figure 4 presents the density visualization of keyword co-occurrence generated using VOSviewer, illustrating the relative intensity and concentration of research topics in digital marketing and consumer behavior within the MSME sector. In this visualization, the color gradient represents the frequency and prominence of keywords across the bibliometric dataset, where yellow indicates the highest research density, green represents moderate density, and blue indicates relatively low research intensity. The keywords *consumer behavior* and *consumer* appear as the brightest (yellow) areas, demonstrating that they constitute the core themes of the existing literature. Closely surrounding these dominant topics are keywords such as *behavior*, *trust*, *loyalty*, *company*, *customer*, and *social media marketing*, suggesting that previous studies have primarily concentrated on understanding consumer attitudes, customer relationships, and digital marketing strategies that influence purchasing behavior. The high-density concentration around these keywords indicates their central role in shaping the intellectual foundation of digital marketing research in the MSME context.

Beyond the central themes, the density visualization identifies several emerging yet comparatively less explored research areas. Keywords including *MSME*, *development*, *competitiveness*, *digital technology*, *digital era*, *sales*, *Indonesia*, and *small and medium enterprises* exhibit moderate density (green), indicating increasing scholarly interest in digital transformation and business sustainability among MSMEs. Meanwhile, topics such as *artificial intelligence*, *influencer marketing*, *questionnaire*, *variable*, *relationship*, and *influence* appear in lower-density regions, suggesting that these areas remain relatively underdeveloped and offer significant opportunities for future investigation. The spatial distribution of keyword density demonstrates that research has progressively expanded from traditional consumer behavior studies toward broader discussions encompassing technological innovation, digital competitiveness, and intelligent marketing systems. Overall, the density visualization highlights that future research should emphasize the integration of artificial intelligence, advanced digital technologies, data-driven marketing, and sustainable digital transformation to strengthen consumer engagement and enhance the long-term competitiveness of MSMEs in the digital economy.

➤ Discussion

The bibliometric analysis demonstrates that research on digital marketing and consumer behavior in the MSME sector has experienced substantial growth over recent years, reflecting the increasing importance of digital transformation in small business development. The continuous rise in publications indicates that scholars have increasingly recognized digital marketing as a strategic mechanism for improving organizational competitiveness, customer engagement, and business sustainability. This trend is closely associated with the rapid expansion of internet accessibility, social media platforms, mobile technologies, and e-commerce ecosystems that have fundamentally transformed how MSMEs interact with consumers. The COVID-19 pandemic further accelerated digital adoption, encouraging researchers to investigate how digital technologies influence consumer purchasing behavior and organizational resilience. Consequently, the bibliometric findings confirm that digital marketing has evolved from a supplementary promotional tool into a central research domain that integrates marketing, information technology, consumer psychology, and business management.

The network visualization identifies three dominant thematic clusters that collectively describe the intellectual structure of this research field. The first cluster is centered on consumer behavior, representing the largest and most interconnected theme within the knowledge network. Keywords such as consumer, trust, loyalty, customer, social media marketing, influencer marketing, and artificial intelligence indicate that researchers primarily focus on understanding how digital interactions shape consumer attitudes, purchasing intentions, and long-term customer relationships. The prominence of trust and loyalty further suggests that successful digital marketing strategies depend not only on technological innovation but also on the ability of businesses to establish credibility and maintain positive relationships with consumers. These findings are consistent with the Technology Acceptance Model (TAM), which emphasizes that consumers' perceptions of usefulness and ease of technology adoption significantly influence behavioral intentions (Davis, 1989; Venkatesh & Davis, 2000).

The second cluster focuses on MSME development and digital transformation, highlighting keywords such as MSME, development, competitiveness, digital technology, digital era, sales, and Indonesia. This cluster demonstrates that digital marketing research has increasingly

shifted toward examining how technological innovation contributes to organizational performance and sustainable business growth. Rather than focusing solely on consumer behavior, recent studies investigate digital transformation as a strategic capability that enables MSMEs to improve operational efficiency, market expansion, and competitive advantage. The strong relationship between MSMEs and digital technology reflects global policy initiatives encouraging digital entrepreneurship and innovation among small businesses. Therefore, the bibliometric mapping confirms that MSMEs have become one of the most important contexts for investigating digital marketing implementation in emerging economies.

The third cluster represents the methodological foundation of the literature, containing keywords such as questionnaire, variable, value, and influence. The dominance of these terms indicates that quantitative research methods remain the prevailing approach in studies concerning digital marketing and consumer behavior. Survey-based research combined with statistical techniques such as Structural Equation Modeling (SEM), Partial Least Squares Structural Equation Modeling (PLS-SEM), and multiple regression analysis continues to dominate empirical investigations because these methods enable researchers to examine causal relationships among marketing variables and consumer behavioral outcomes. Although quantitative studies provide strong empirical evidence, the bibliometric findings also suggest opportunities for expanding methodological diversity through qualitative, mixed-methods, experimental, and longitudinal research designs capable of generating deeper theoretical insights.

The overlay visualization provides important evidence regarding the temporal evolution of research themes. Earlier studies concentrated primarily on fundamental concepts such as consumer behavior, consumer, development, and MSME, which established the theoretical foundation of this research area. However, more recent publications increasingly emphasize emerging topics such as artificial intelligence, influencer marketing, trust, loyalty, and competitiveness. This evolution indicates that researchers are moving beyond conventional digital marketing practices toward more sophisticated, technology-driven, and customer-centered marketing strategies. Artificial intelligence, predictive analytics, and intelligent recommendation systems have become increasingly relevant because they enable businesses to personalize consumer experiences, improve marketing efficiency, and enhance customer satisfaction. Similarly, influencer marketing

has emerged as an important mechanism for strengthening brand credibility through trusted digital opinion leaders.

The density visualization further reinforces these findings by illustrating the concentration of scholarly attention across different research themes. The brightest areas are occupied by consumer behavior and consumer, confirming that these remain the intellectual core of the literature. High-density regions surrounding trust, loyalty, customer, and social media marketing indicate that consumer relationship management continues to dominate digital marketing research. Conversely, relatively lower-density areas associated with artificial intelligence, digital technology, digital era, and competitiveness suggest that these themes remain underexplored despite their growing importance. This pattern indicates significant opportunities for future studies to investigate the integration of intelligent technologies, big data analytics, machine learning, and digital innovation into MSME marketing strategies.

The bibliometric findings also reveal increasing interdisciplinary integration within the field. Digital marketing research is no longer confined to marketing science but increasingly intersects with information systems, entrepreneurship, business analytics, consumer psychology, innovation management, and digital economics. Such interdisciplinary collaboration reflects the complexity of digital transformation, where consumer purchasing decisions are simultaneously influenced by technological capability, organizational strategy, social interaction, and behavioral factors. The growing collaboration among researchers, institutions, and countries further demonstrates that digital marketing has become a global research agenda addressing the challenges of sustainable economic development, digital inclusion, and MSME competitiveness.

Overall, this bibliometric study contributes by providing a comprehensive mapping of the intellectual landscape, thematic evolution, and emerging research opportunities in digital marketing and consumer behavior within the MSME sector. The findings indicate that future research should move beyond examining conventional relationships between digital marketing and purchasing behavior by incorporating emerging technologies such as artificial intelligence, big data, blockchain, social commerce, and immersive digital platforms. Additionally, greater attention should be devoted to sustainability, digital resilience, ethical marketing, and consumer data privacy to ensure that digital transformation not only improves business performance but also

supports responsible and inclusive economic development. Consequently, the present study offers valuable theoretical guidance for future researchers while providing practical insights for MSME managers and policymakers seeking to formulate evidence-based digital marketing strategies in the rapidly evolving digital economy.

D.CONCLUSION AND RECOMMENDATIONS

➤ Conclusion

This bibliometric study provides a comprehensive overview of the development of research on digital marketing and consumer behavior in the MSME sector by mapping publication trends, thematic structures, and emerging research directions. The findings reveal that this research field has experienced significant growth in recent years, reflecting the increasing importance of digital transformation in enhancing MSME competitiveness and sustainability. The network visualization identifies three major research clusters, namely consumer behavior, MSME development and digital transformation, and quantitative research methodologies. Among these, consumer behavior emerges as the central theme, demonstrating that consumer trust, loyalty, purchasing behavior, and customer engagement remain the primary focus of existing studies.

Furthermore, the overlay and density visualizations indicate a shift in research attention from traditional digital marketing concepts toward emerging topics such as artificial intelligence, influencer marketing, digital technology, customer trust, competitiveness, and sustainable business development. Although these themes have gained increasing scholarly attention, several areas remain relatively underexplored, particularly the integration of artificial intelligence, big data analytics, digital resilience, and advanced consumer analytics into MSME marketing strategies. Overall, this study contributes to the literature by providing a systematic knowledge map that identifies influential research themes, emerging trends, and future research opportunities. The findings also provide valuable insights for academics, practitioners, and policymakers in developing evidence-based digital marketing strategies that strengthen consumer engagement, improve business competitiveness, and support the long-term sustainability of MSMEs in the digital economy.

➤ Recommendations

Based on the findings of this bibliometric study, future researchers are encouraged to explore emerging themes that remain underrepresented in the existing literature, including artificial intelligence, machine learning, big data analytics, blockchain technology, social commerce, digital trust, and customer experience management within the MSME sector. Future studies should also employ interdisciplinary and comparative approaches by integrating perspectives from marketing, information systems, entrepreneurship, business analytics, and behavioral sciences. In addition, expanding bibliometric analyses using multiple databases such as Web of Science, Dimensions, and Google Scholar would provide a broader and more comprehensive understanding of the global research landscape.

From a practical perspective, MSME owners should continue strengthening their digital marketing capabilities by adopting innovative technologies, improving customer engagement through social media, and utilizing data-driven marketing strategies to better understand consumer behavior. Policymakers and business support institutions should intensify digital transformation programs by providing training, digital infrastructure, and technological assistance that enable MSMEs to effectively utilize emerging digital technologies. Strengthening collaboration among universities, government agencies, industry, and technology providers is also essential to accelerate innovation and develop sustainable digital ecosystems that enhance the competitiveness and resilience of MSMEs in the evolving digital economy.

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