

Digital, Social, and Mobile Marketing: A Bibliometric Analysis and Future Directions

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ABSTRACT

Digital, Social, and Mobile Marketing (DSMM) has experienced a sensational evolution over time, pushing the boundaries of DSMM strategies in a transforming digital world and fundamentally reshaping the marketing landscape in previously unimaginable ways. This study meticulously compiles insights from 99 articles indexed in Scopus, published between 2016 and 2024. This study offers a comprehensive bibliometric analysis that shows publication trends, highlights the most-cited works, and explores significant collaborations within this dynamic field. A theoretical, contextual, conceptual, and methodological (TCCM) framework was implemented that analyzed not only existing literature but also found gaps that can be further explored. This study aims to understand the research gaps and drive meaningful transformation in the field of DSMM. Also, this study aims to inspire and guide researchers by throwing light on future research agendas identified through the TCCM framework. Finally, This study presents valuable recommendations for scholars and researchers to dive deep into the research area of DSMM.

Keywords: Digital marketing, Social marketing, Mobile marketing, Marketing practice, Research agenda

INTRODUCTION

In recent years, marketing professionals, practitioners, researchers, and academics have witnessed remarkable transformations within the discipline of marketing. The advent of cutting-edge technologies, the widespread availability of affordable internet, and the surge in social connectivity bolstered by popular social media platforms such as Facebook, twitter and linkedin, which are interesting, that capture the attention of consumers, enjoyable and relevant Manyanga et al. (2024) and have revolutionized the landscape of digital, social, and mobile marketing (DSMM). Alkhatib et al. (2024) social media platforms and digital marketing are now essential tools businesses use to market their goods and services. Ercik and Karda (2024) digitalization represents one of the most prominent and impactful transformation processes of our era, leading to profound changes across various sectors. Reyhanrafif et al. (2024) social media represents a shift from the broadcast era's centralized, delayed feedback model to an interactive era marked by direct and personalized communication. Historically, media messages were disseminated by singular entities to mass audiences. Aldaihani (2024), Benchekrroun et al. (2024), and Otopah et al. (2024) found consumer trust moderates the relationship between digital marketing, mobile marketing and social media marketing with customer engagement. This evolution not only reshapes how brands connect with audiences but also opens up exhilarating opportunities for creativity and engagement in the marketplace. Lamberton and Stephen (2016) have given the thematic exploration of DSMM from 2000 to 2015. This present article confers a way forward to their contribution by providing a comprehensive bibliometric review of DSMM from 2016 to 2024. Readers are engrossed in articles that take such a point of view in a specific research area. This bibliometric analysis suggests that the DSMM research field has evolved. Marketing professionals, practitioners, researchers, and academics can use this to conceptualize the transformative DSMM and analyse the marketing work with the related conversations in the world. Importantly, this DSMM bibliometric analysis suggests a relevant future agenda. Thus, this contribution lies in a meaningful way by helping Marketing professionals, practitioners, researchers, and academics to first understand DSMM from a global perspective, and most significantly, identify new DSMM research directions and throughs light on relevant insights on the DSMM domain. This study highlights transformation in field of DSMM over time. The Scopus database search result shown 99 articles published between 2016 and 2024, all incorporating the keywords Digital, Social, Mobile, and Marketing in their titles, abstracts, and keywords. This striking volume indicates that DSMM has firmly established itself as a captivating topic of research. In this article, authors go through into the varied dimensions of DSMM and put forth insightful recommendations for future inquiries. This study is designed to address the following research questions:

RQ1. How has the domain of DSMM evolved between 2016 to 2024?

RQ2. What are the most productive authors, journals, years, countries, and keywords in the subject of the dataset on DSMM?

RQ3. What are the prospects for future research on DSMM using the TCCM framework?

This article is structured as follows: Section 2 provides an overview of the data and methods used. Section 3 presents a bibliometric overview and illustrates the overall data analysis. The TCCM framework and future agendas are discussed in Section 4. Finally, Section 5 concludes the article.

DATA AND METHOD

To grab about the evolution of research across specific domains, identify knowledge gaps, and articulate ambitious objectives for future studies, researchers embark on a systematic literature review as proposed by Bhukya and Paul (2023). The authors skillfully embraced a mixed-methods approach, merging a bibliometric review with the TCCM framework to explore DSMM and unveil promising avenues for further research. Adhering to Bhukya and Paul (2023) meticulously outlined review process, they navigated essential stages identification, screening, and inclusion with precision. Only Scopus-indexed articles published in reputable peer-reviewed journals were used. Figure 1 shows the careful selection process of articles, through the clear steps of identification, screening, and inclusion.

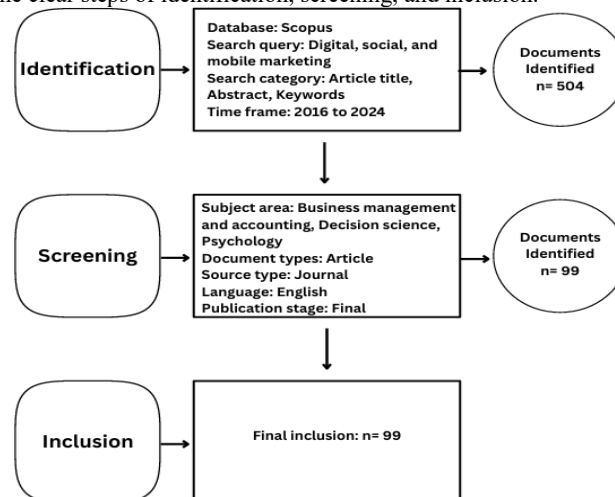


Figure 1. Article sourcing criteria.

Identification : The authors explored Digital, Social, and Mobile Marketing (DSMM) by going through the research papers published between 2016 and 2024 within the Scopus database and using carefully chosen keywords such as "Digital," "Social," and "Mobile Marketing," as well as article titles, abstracts, and keywords to uncover pertinent research. A total of 504 documents were found in the search results. To further refine this result, the authors used a rigorous screening process, which ensured that each document was shortlisted using relevant filters, enhancing the quality of their findings.

Screening: The authors used relevant filters to improve a selection of impactful research papers. They began by limiting their search to publication fields such as "Business Management and Accounting," "Decision Sciences," and "Psychology." Furthermore, only journal articles that had reached the final stage of publication and were written in English were considered. This comprehensive approach led to the identification of a total of 99 noteworthy documents.

Final inclusion: The authors have precisely identified a total of 99 documents that significantly contribute to the literature on DSMM, following an extensive and thorough screening process. In addition, they randomly assessed these documents for their relevance to the study, and to their delight, every single one of the 99 documents proved to be highly pertinent to the subject matter. As a result, these valuable findings present an exceptional opportunity for insightful analysis.

Bibliometric overview: For bibliometric analysis, various programs and tools are available, including VOSviewer, R Biblioshiny, BibExcel, Gephi, and Pajek. The authors used R Biblioshiny and VOSviewer to analyze the data. All 99 publications were subjected to bibliometric analysis, and the findings are presented in this study. Firstly, the authors provide a publication trend summary of all articles connected to DSMM published from 2016 to 2024. Next, the authors provided a series of studies such as top-cited articles, top keywords, top productive and cited authors as well as countries, top relevant affiliations, and top collaborations and concluded this bibliometric analysis with the thematic exploration. Authors presenting the findings about the most significant and effective authors who have worked in the domain of DSMM research.

Publication trend: Publication trend. Figure 2 displays the DSMM related research publication trends from 2016 to 2024. This bibliometric summary presents a compelling overview of over 99 articles published in 81 diverse journals indexed in Scopus. With an impressive annual growth rate of 9.05 percent, these articles reflect a vibrant and evolving field of study. The average age of each articles stands at 4.34 years, and average of 41.26 citations per article, enhancing their significant impact in DSMM research area. Also, a total of 259 frequently used keywords found from the research, alongside 447 unique keywords contributed by the various authors, showcasing a diverse collection of keywords. Particularly, 19 articles were authored by a single author. Also, the average number of co-authors per article is 3.07. Which shows a moderate collaboration among researchers. Global collaboration accounted for approximately 25.25 percent, signifying an inspiring level of international engagement and cooperation in this field. Together, these findings paint a picture of a thriving academic landscape actively contributing to knowledge and understanding worldwide.



MAIN INFORMATION ABOUT DATA	
Timespan	2016:2024
Sources (Journals, Books, etc)	81
Documents	99
Annual Growth Rate %	9.05
Document Average Age	4.34
Average citations per doc	41.26
References	0
DOCUMENT CONTENTS	
Keywords Plus (ID)	259
Author's Keywords (DE)	447
AUTHORS	
Authors	299
Authors of single-authored docs	19
AUTHORS COLLABORATION	
Single-authored docs	19
Co-Authors per Doc	3.07
International co-authorships %	25.25
DOCUMENT TYPES	
article	99

Figure 2. Main information about data.

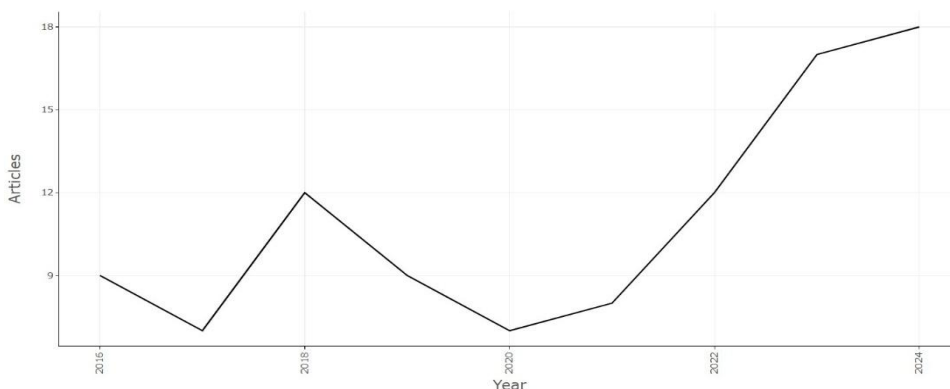


Figure 3. Annual Scientific Production.

This graph (Figure 3) of annual scientific production represents the number of articles published per year from 2016 to 2024. The authors found a fluctuation in the number of articles published over time. The maximum number of articles was 18 published in the year 2024, followed by 17 in the year 2023. Minimum number of articles was 7 published in both the year 2017 and 2020. This suggests there is a growing trend in DSMM, with increasing publications with time.

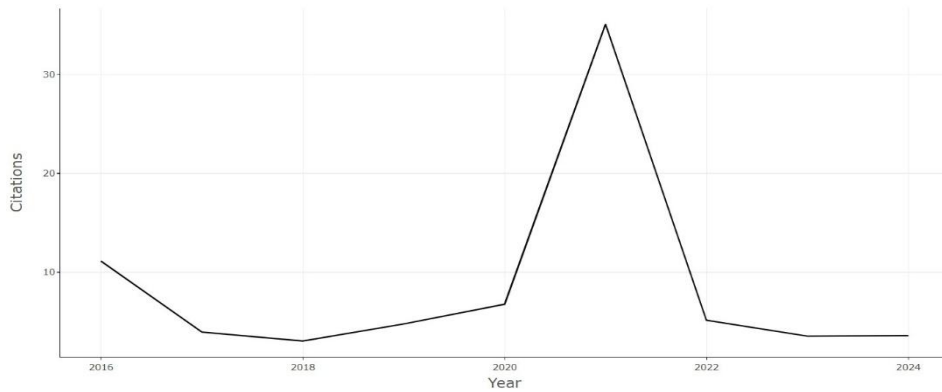


Figure 4. Average citation per year.

This graph (Figure 4) represents the Average number of citations per year over the year 2016 to 2024. The year 2021 has the highest average citations of 35.10. Which proves 2021 as an remarkable year for DSMM related research area.

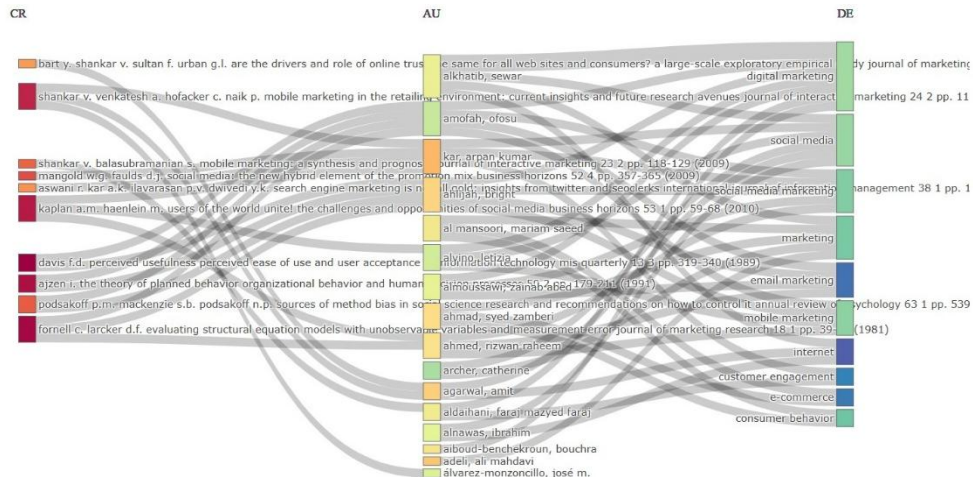


Figure 5. Three-field plot.

This Three-field plot presents a visual of a Sankey diagram, as shown in Figure 5. It shows the relationship between elements such as CR (Cited Reference), AU (Authors), and DE (Keywords) within the dataset used for research through an Incoming flow (IF) and Outgoing flow (OF). Kaplan AM and Haenleim M have the highest CR with OF 4, followed by Shankar and Venkatesh (Shankar et al. (2022) Hofacker, Haik P, and Fornell with OF 3. Also, Mangold, Davis (Confos and Davis (2016) and Ajzen with OF 2. Remaining Bart, Shankar, Aswani, Hollebeek, Smock, and Berger with OF 1. Gupta A (Gupta et al. (2018) has the maximum number of IF 5, with OF 3 in AU. Followed by Amofah (Otopah et al. (2024) and Ahlijah B (Otopah et al. (2024)) both with IF and OF 4. Kar Ak (Grover and Kar (2020) Sarin et al. (2021) with IF 4 and OF 3. AU such as Alkhatibs, has 0 IF and OF 4. Li c, Aibo, Ailvarez have the same IF and OF i.e. 0 and 1 respectively. Furthermore, digital marketing has the maximum number of IF 7, SMM, and SM with IF 6. Mobile marketing, Marketing, and Email Marketing with IF 4. Internet IF 3, Consumer behavior, Customer engagement, e-commerce with IF 2. Ewom and consumer engagement with each IF 1.

Top cited article: A total of 99 articles have contributed to the field of DSMM research, published across 81 journals. In Figure 6, authors presented a list of the top 10 articles with over 75 citations as per R Biblioshiny, highlighting their significant impact on DSMM research area. Leading the pack is the influential study by Dwivedi et al. (2021), published in the International Journal of Information Management has maximum number i.e. 1,105 citations with an average of 368 citations per year (CPY), underscoring its pivotal role in shaping the discourse around DSMM. Followed by Scholz and Smith (2016), published in Business Horizons with 371 citations and maintains an average of 46 citations per year, reflecting its ongoing relevance. Batra and Keller (2016) compelling research, published in the Journal of Marketing, has achieved 356 citations, with an average of 44 citations annually. Batra and Keller (2016) compelling research, published in the Journal of Marketing, has achieved 356 citations, with an average of 44 citations annually. Our list also highlights other significant contributions, such as Camilleri and Falzon (2021) article in the Spanish Journal of Marketing - ESIC, which has secured 136 total citations and an impressive average of 45 citations per year. Grover and Kar (2020) study in the Journal of Retailing and Consumer Services has received 103 citations, averaging 25 citations annually, while Rossmann et al. (2016) work in the Journal of Services Marketing has made its mark with 94 citations and an average of 11 citations per year. Moreover, Chen (2017) research in Public Relations Review boasts 92 total citations with an average of 13 citations per year, and Carrozzi et al. (2019) article in the Journal of Interactive Marketing has achieved 84 citations, averaging 16 citations annually. Sun et al. (2020) publication in the International Journal of Information Management adds to this impressive list with 83 total citations and an average of 21 citations per year. Finally, Miller et al. (2018), with research published in Industrial Marketing Management, has garnered 76 citations, maintaining an average of 12 citations per year. This compelling collection of research not only reflects the growing importance of DSMM but also inspires ongoing exploration and inquiry within the field.

Kar (2020), Sarin et al. (2021) Truman E (Elliott et al. (2023), Elliott et al. (2022) Adeli AM (Babar et al. (2023) Agarwal A (Shankar et al. (2022) Ahlajah B (Otopah et al. (2024) Ahmed RR (Ahmed et al. (2017) Ahmad SZ, and AL Mansoori MS. (Al Mansoori and Ahmad (2021) Lotka's law is used to measure the productivity of authors based on the number of articles written by them. Figure 10 shows the table and graphical representation of authors productivity. This law also outlines the publishing frequency of the authors. From Figure

Documents written	N. of Authors	Proportion of Authors
1	294	0.983
2	5	0.017

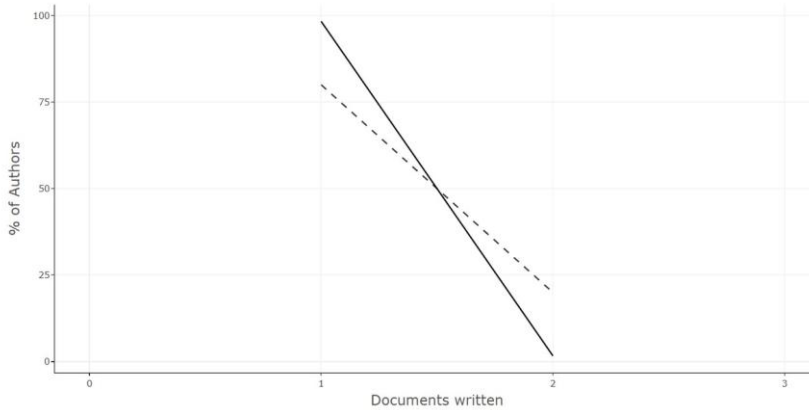


Figure 10. Author's productivity through Lotka's law.

10, it can be seen that 293 authors have published only one publication, while only 5 authors have published two. This results in a proportion of 98.3 percent (293 authors) who have contributed only once and 1.7 percent (5 authors) who have contributed more than one publication. Most authors have therefore only made a single contribution, with very few having published multiple works.

This Figure 11 illustrates the frequency with which co-authors are cited across various documents. This bibliometric analysis identifies influential authors and reveals the intellectual structure within the research area. To focus on the most impactful articles, a minimum citation threshold of 20 was set for authors. Of the 11294 authors, 18 meet this criterion. For each of these 18 authors, we calculated the total strength of their co-citation links with other authors, selecting those with the strongest link strength. Dwivedi et al. (2021) was most cited and strongly link with 73 citations and total link strength of 1041 respectively. Followed by Rana NP citations 30 and total link strength 602, Shankar et al. (2022) citations 40 and total link strength 574, Kumar V Dwivedi et al. (2021) citations 25 and total link strength 512, Kar AK (Grover and Kar (2020) citations 25 and total link strength 415, Gerval D Shankar et al. (2022) citations 21 and total link strength 412, Davis F.D. Confos and Davis (2016) (30 and 311), Hair J.F. (29 and 309), Sarstedt M. (28 and 294), Karjaluoto H. Dwivedi et al. (2021) (31 and 285), Ringle C.M. (22 and 282), Stephen A.T. (21 and 275), Pauwels K (21 and 272), Venkatesh V Shankar et al. (2022) (23 and 258), Wang Y Dwivedi et al. (2021) (28 and 237), Kim J Sleiman et al. (2024) (21 and 217), Podsakoff P.M. (20 and 212), and Mackenzie S.B. (20 and 210). This co-citation analysis shows there is a growing prominence of group of authors in DSMM area research.

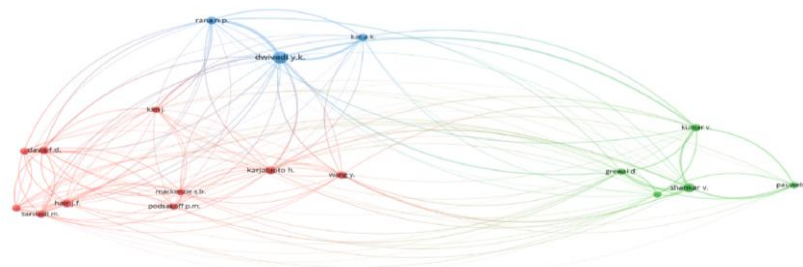


Figure 11. Co-citation cited authors.

Top productive and cited countries

In this section, Figure 12 and 13, represents the top 10 most cited countries and top 5 countries production over time respectively. Countries having at least more than 75 citations are taken into consideration. These 10 countries in all met the requirements. Top 10 includes Finland as the most cited country with overall no. of citations = 1105. Followed by USA as second most cited country with overall no. of citations = 682, Third Australia with no. of citations = 386, India(229), China (174), MALTA (136), Spain (79), Germany, Greece, and Lebanon with a same no. of citations = 76.

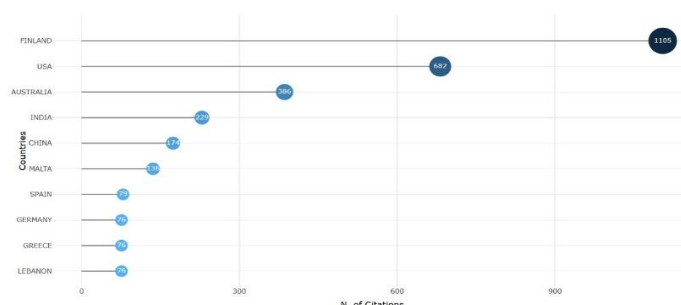


Figure 12. Top 10 most cited countries.

Top 5 countries production over time were taken into consideration on the basis of maximum no. of articles published in time frame of 2016 to 2024. As per Figure 13 Maximum no. of articles published from USA (170 articles), followed by Australia (85 articles), China (78 articles), United Kingdom (76 articles), and India (72 articles) respectively.

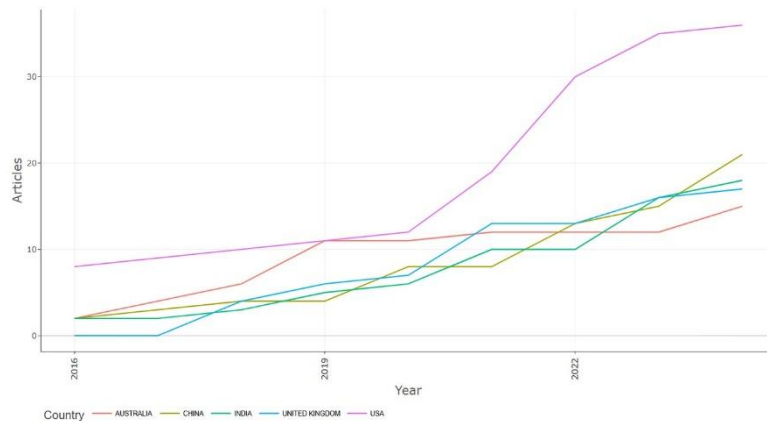


Figure 13. Top 5 Countries production over time.

Top relevant affiliations

In this section, Figure 14 shows the top 10 most relevant affiliations. These affiliations were shortlisted on the basis of number of articles published. Chinhoyi University of Technology (Dangaiso (2024), Manyanga et al. (2024) and University of Calgary (Elliott et al. (2023), Elliott et al. (2022) both have the highest number of articles (4 each). Bina Nusantara University (Reyhanrafif et al., 2024, Anisa and Tjhin (2023), Sidi Mohamed Ben Abdellah University (Bencheckroun et al. (2024) Szchenyi Istvan University (Alkhatib et al. (2024), and University of Western Macedonia (Saprikis et al. (2021) each 3. Edith Cowan University (Iranmanesh et al. (2024), ICFAI Business School (Sinha et al. (2023), Indian Institute of Management Ranchi Kumar V (Dwivedi et al. (2021)), and Indian Institute of Technology Delhi (Grover and Kar (2020), Sarin et al. (2021)) each 2.

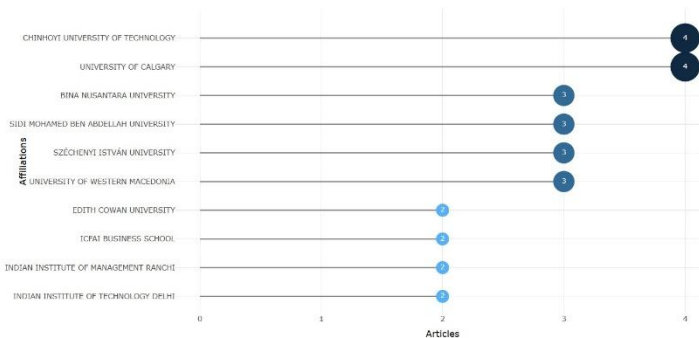


Figure 14. Top 10 most relevant affiliations.

Top collaborations

This author's collaboration network (Figure 15) visualizes the coauthorship relationships among researchers. The network highlights key researchers and identifies isolated groups. Elliott C. and Truman L. (Elliott et al. (2023), Elliott et al. (2022) are highly connected researchers, while Gupta et al. (2018) belongs to different clusters with no connections outside of those groups. These authors are situated in high-density regions. In addition, researchers such as Aponte-Hao S. (Elliott et al. (2022) Bakshi S. (Gupta et al. (2018)), and Black J.E. (Elliott et al. (2023) exhibit moderate levels of collaboration and are part of a medium-density region. Conversely, Amofah O. (Otopah et al. (2024) Ahlijah B. (Otopah et al. (2024) Babar et al. (2023), Adeli A.M. (Babar et al. (2023), Bencheckroun et al. (2024), and Bensouda M. (Bencheckroun et al. (2024) are positioned in low-density regions, indicating the presence of emerging research groups with only a few publications. A few authors, including Al Mansoori M.S. (Al Mansoori and Ahmad (2021) Ahmad S.Z. (Al Mansoori and Ahmad (2021) Asadi S. (Iranmanesh et al. (2024) and Babae Tirkolae E (Iranmanesh et al. (2024) are located in disconnected clusters, suggesting they have fewer connections outside their own groups.



Figure 15. Collaborative network density

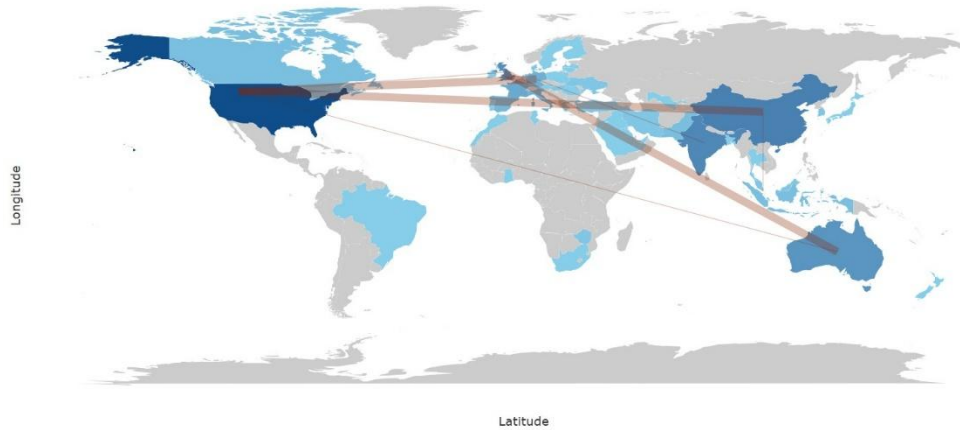


Figure 16. Countries collaboration world map.

The world map shows (Figure 16) a collaboration network between authors from different countries. The US, UK, Germany, France, China, and Australia have strong collaboration. Which were represented in dark shades. Whereas the brown link represented the link and collaboration between countries. Which shows the US ties with Europe, Asia, and Australia. Europe was interconnected with itself. Whereas Africa and South America seem to have less collaboration.

Thematic exploration

In this section, authors performed a bibliometric analysis to study the thematic exploration which helps to identify connections, research gaps, and current trends. The Figure 17 shows thematic clusters with bibliometric indicators

Cluster	CallonCentrality	CallonDensity	RankCentrality	RankDensity	ClusterFrequency
All	All	All	All	All	All
commerce	5.280	78.778	8	5	24
economic and social effects	0.500	62.500	3.5	4	4
behavioral research	0.833	87.500	5	6	9
consumption behavior	1.750	105.556	6	7	13
decision making	0.250	50.000	1.5	2	2
digital marketing	0.250	50.000	1.5	2	2
marketing	2.941	321.895	7	8	46
digital datas	0.500	50.000	3.5	2	2

Figure 17. Thematic map: Table.

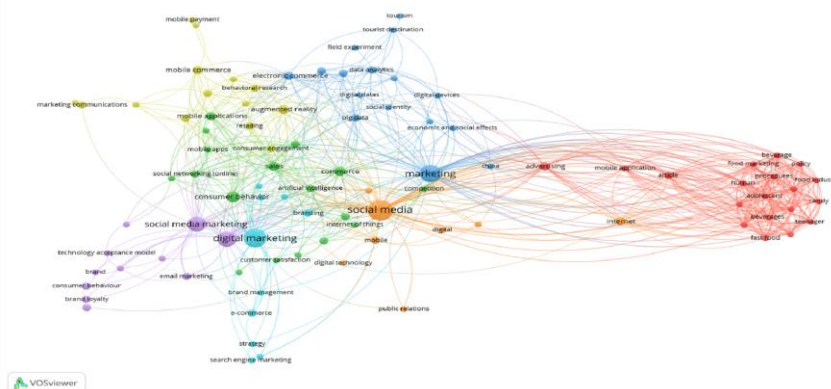


Figure 18. Thematic map: Network.

that appraise the development (callon density) and relevance (callon centrality) of various themes in research. Higher centrality values measure more influential research topics, whereas higher density values show a well-structured research area. Themes like marketing and commerce were well-developed and most relevant. Behavioral research and consumer behavior were well-developed but less central. Digital marketing and decision-making represent low centrality and suggest niche or emerging themes. Cluster frequency represents the occurrence of a particular theme, Words such as marketing and commerce are the most frequently words that were studied. This thematic network, as shown in Figure 18 which visualizes the network including nodes and edges, Node size represents the importance or frequency of keywords or themes, and edge thickness represents the strength of the network. Clusters of different colors show a thematic group. Marketing, social media, commerce, and sales were highly interconnected and emerged as the most central topic. Some isolated

clusters show niche or emerging topics. These isolated clusters have limited integration to the main themes. This Thematic graph, as shown in Figure 19 which

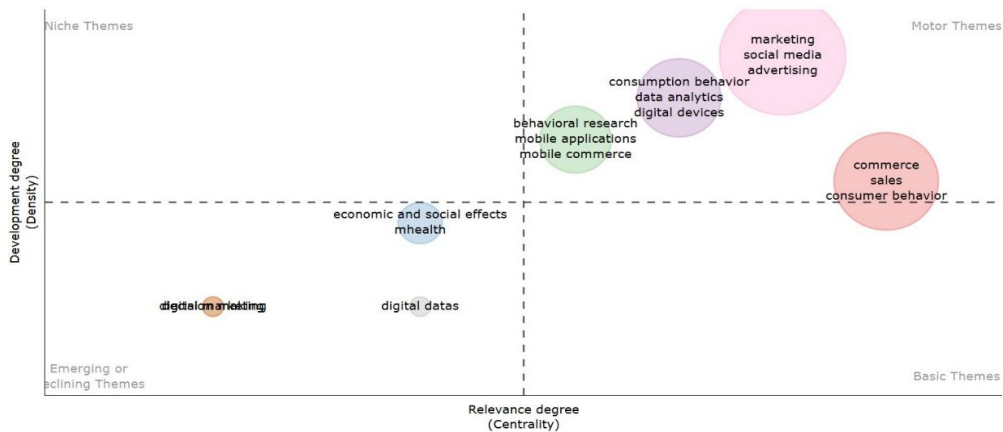


Figure 19. Thematic map graphical representation.

visualizes different themes based on their relevance degree (centrality) and development degree(density), both degrees represent the X-axis and Y-axis respectively. The X-axis indicates the influence and importance of a research domain inside its boundaries, Whereas the Y-axis indicates the level of maturity, coherence, and internal development of a theme. The authors have explained all four quadrants as follows: First, the top-right quadrant represents motor themes which is a highly influential theme. This indicates strong connectivity. It includes words like marketing, social media, advertising, etc which are highly significant. The top-left quadrant represents niche themes which is highly developed but less relevant. The bottom-right quadrant represents basic themes that are relevant but less developed, but the words lying in this theme are possibly broad and Finally, authors encounter the bottom-left quadrant which represents declining or emerging themes that are low relevance and low development. The words lying in this quadrant such as digital marketing, digital data, etc need further investigation. Together, these quadrants provide a captivating view of the research landscape,Also, it helps in finding trends and gaps in a research domain.

TCCM Framework for future directions

The future of DSMM research, highlighted by the bibliometric analysis above, presents a promising avenue for exploration. This area of study requires a comprehensive approach to understand its future research directions. The TCCM framework, illustrated in Figure 20 aids in analyzing the future research outcomes based on the papers reviewed in this article.

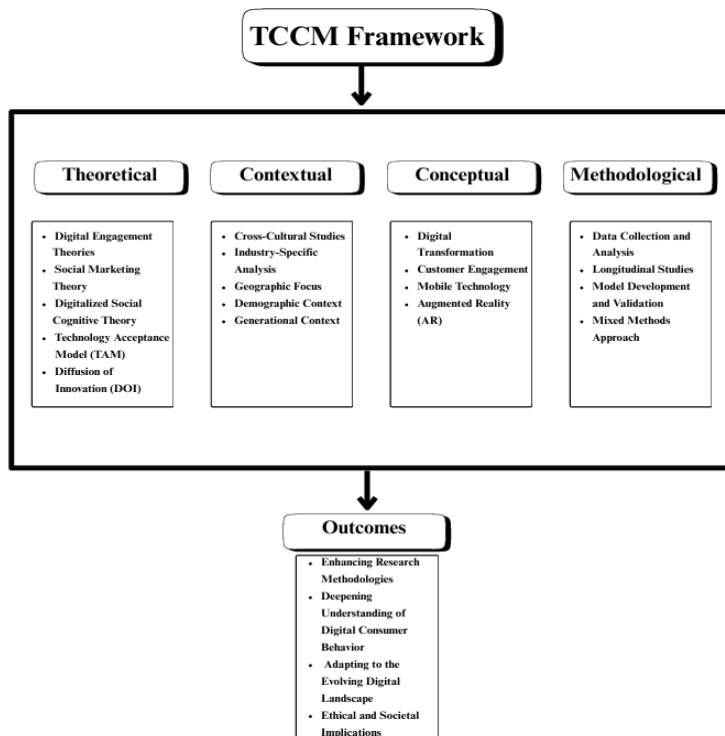


Figure 20. TCCM framework model.

Theoretical future research directions. It is crucial to understand and promote theories such as the Digital Engagement Theory, Social Marketing Theory, DSC Theory, TAM, and DOI. Scheinbaum (2016) recommended incorporating this theory with cognitive learning, social identity, and social comparison to evaluate both the positive and negative impacts. Manikam and Russell-Bennett (2016) proposed developing a model that focuses on Social Marketing Theory to identify challenges within social marketing. Additionally, Sun et al. (2020) emphasized the importance of understanding the features of digital technology and exploring mobile identities specifically, the digital persona and its interactions within the digital environment, aligning this with the Digital Service Capability (DSC) theory. Ullah et al. (2023) suggested linking the Technology Acceptance Model (TAM) with the Diffusion of Innovations (DOI) theory to enhance the adaptation of digital marketing. These theoretical recommendations aim to implement and integrate existing theories effectively.

Contextual future research directions. It is essential to understand the context in terms of geography, demographics, generational factors, cross-cultural influences, and industry-specific elements. Oentoro (2020), Zhu et al. (2023), and Khan et al. (2024) recommend conducting cross-cultural studies to explore cultural factors that impact Digital Social Media Marketing (DSMM). Barile et al. (2024), Miller et al. (2018), and Lamest and Brady (2019) suggested expanding research in the industry segment and focusing on digital marketing strategies. Deb et al. (2024), Lo Presti et al. (2022), and Manyanga et al. (2024) recommend increasing research efforts in various geographical locations. Confos and Davis (2016), Jung et al. (2021), Gupta et al. (2018), and Saprikis et al. (2021) emphasize the need to study demographic groups, particularly focusing on younger age segments and mobile augmented reality (AR) adoption trends.

Conceptual future research directions

Conceptually, Research focuses on Digital Transformation, Customer Engagement, Mobile technology, and AR. Barile et al. (2024), and Saura et al. (2023) suggested monitoring digital transformation and continuously changing digital environment. Many authors such as Aldaihani (2024), Dwivedi et al. (2021), Hughes and Moscardo (2017), Kumari et al. (2024), Rossmann et al. (2016), and Oncioiu et al. (2021) suggested to work on customer engagement strategies and what factors influence customer engagement. Additionally, Banerjee and Longstreet (2016), Hughes and Moscardo (2017), Papakonstantinidis (2017), and Santomier et al. (2016) recommend researching the impact of mobile technology on consumer awareness. Finally, Carrozzi et al. (2019), Scholz and Smith (2016), and Smith (2020) suggest investigating the effects of AR and its design.

Methodological future research directions

Methodology is a rich blend of essential components, including data collection and various analytical methods. Esteemed scholars such as Ahmed et al. (2017), Chen (2017), Grover and Kar (2020), Lawry and Bhappu (2021), Mariani et al. (2023), Phang et al. (2020), Sarin et al. (2021), and Tang and Li (2016) advocate for innovative data collection techniques, including interviews, questionnaires, and mobile data analysis. Additionally, Dangaiso (2024), Batra and Keller (2016), Kumari et al. (2024), Otopah et al. (2024), Reyhanrafif et al. (2024), and Manikam and Russell-Bennett (2016) emphasize the value of longitudinal studies to capture the nuances of long-term impact. The significance of model development and validation is highlighted by experts like Batra and Keller (2016), Khan et al. (2024), Chen et al. (2023), and Shaltoni et al. (2018). Finally, thought leaders such as Kumari et al. (2024), and Manyanga et al. (2024) champion mixed methods approaches, combining qualitative and quantitative insights to provide a deeper understanding of complex issues.

Outcomes and suggestion for future research

The potential future directions suggest enhancing research methodologies that involve data collection methods beyond traditional approaches. This includes a focus on experiments, interviews, and real-time data. Additionally, there should be an emphasis on cross-cultural global research, as well as the adoption of longitudinal and mixed-method approaches. Researchers need to identify effective customer engagement strategies and assess the impact of mobile technology and social media on customer behavior. This understanding can deepen insights into digital consumer behavior. Furthermore, it is essential to adapt to the evolving high-tech environment by transforming digital technologies. Addressing digital customer privacy concerns and creating an ethical framework is also crucial.

CONCLUSION

DSMM has the power to influence customer behavior and their decisions. DSMM can be used to improve customer engagement strategies. There is much to appreciate about the approach to DSMM from 2016 to 2024, and there are significant opportunities ahead. The authors have observed an upward trend in DSMM topics. We hope that this article provides insights into the development of this domain, as our understanding of DSMM has increasingly emphasized its evolution over time. This research has made meaningful contributions to scientific progress and offers suggestions for creating an exciting future in the DSMM field with the TCCM framework. TCCM framework provides direction to future researchers.

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Ethical Approval: Not required.

Competing Interests: Not applicable.

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