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Trends of Mobile Marketing Studies in the Two Last Decades: A Scoping Review using Bibliometric Analysis

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Abstract

Mobile marketing is one of the novel ways to increase the economic growth in the digital era by creating the successful industries and businesses. At least in the last two decades, numerous studies published in journals and conference proceedings have examined various aspects of mobile marketing, including consumer behavior, technological integrations, and campaign effectiveness. These studies, however, often focus on specific case studies or isolated advancements rather than providing a comprehensive overview by identifying overarching trends and highlight potential areas for future mobile marketing researches. A scoping review was applied to highlight the trends and innovations in mobile marketing studies over the last two decades. Some bibliometric analyses, including performance, citation, co-authorship, and co-occurrence were conducted on 359 documents within article, review, and conference paper collected from the Scopus database. Results underscored the pivotal role of technology in shaping mobile marketing, with advancements, such as smartphones, augmented reality, and artificial intelligence driving innovation. Countries, such as the United States, the United Kingdom, China, Germany, and South Korea have emerged as dominant contributors to mobile marketing research, reflecting their strong technological and economic ecosystems. The review also revealed that activities, such as m-commerce, m-payment, and electronic marketplaces have become central to the evolution of mobile marketing practices. Predictors, such as behavioral intention, technological innovation, and profitability were identified as significant factors influencing mobile marketing adoption and success. This review provides a valuable foundation for understanding the trajectory of mobile marketing research and its implications for academia, industry, and policy.

Keywords: Bibliometric Analysis, Mobile Marketing, Scopus, Scoping Review, VOSviewer

Introduction

Marketing is a cornerstone of economic growth, serving as a critical driver for the success of industries and businesses in a country. It not only facilitates the introduction of products and

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services to potential customers but also stimulates consumption, creating a ripple effect that boosts production, employment, and gross domestic product (GDP) (Rangaswamy et al., 2020; Surya et al., 2021). Through innovative marketing strategies, businesses can compete effectively in global markets, thereby attracting foreign investments and strengthening the national economy (Hanaysha et al., 2021). In the 21st century, countries leveraging advanced marketing frameworks have seen exponential growth, with small and medium enterprises (SMEs) thriving alongside large corporations. The adaptability of marketing techniques to changing consumer behavior has become instrumental in sustaining economies. Moreover, marketing creates channels for cultural exchange and supports the development of creative industries, fostering a diversified economic structure (Shen et al., 2021). Governments and private sectors alike have recognized the need to invest in marketing infrastructure to ensure their competitiveness in a rapidly globalizing economy (Fang et al., 2022). As such, understanding the dynamics of marketing is essential for policymakers, businesses, and scholars to sustain economic progress and innovation.

The rapid development of technology in the 21st century has transformed traditional marketing practices, with mobile marketing emerging as a key player in this evolution. Mobile devices, such as smartphones and tablets, have become indispensable tools for communication and information consumption, revolutionizing how businesses interact with their audiences (Eze et al., 2021; Tong et al., 2020). The integration of artificial intelligence (AI), big data, and analytics into mobile marketing has enabled marketers to target consumers with personalized and real-time content (Lin et al., 2020). Additionally, the proliferation of mobile applications and social media platforms has expanded the scope of marketing campaigns, allowing brands to reach audiences across geographical and cultural boundaries (Sung, 2021). These advancements have not only enhanced the efficiency of marketing efforts but also fostered deeper consumer engagement and loyalty. In parallel, the Internet of Things (IoT) and 5G technology have further strengthened mobile marketing by enabling seamless connectivity and interactivity (Mkwizu, 2019). The interplay between technology and marketing underscores the importance of leveraging digital innovations to meet the demands of an increasingly mobile-first world.

In the digital era, mobile tools have become indispensable in creating effective and efficient marketing strategies. With features such as geolocation, push notifications, and augmented reality, mobile devices allow businesses to craft campaigns that are highly contextual and immersive (Omar et al., 2021; Peter & Dalla Vecchia, 2021). These tools enable marketers to gather real-time feedback, measure performance metrics, and optimize campaigns on the go, ensuring maximum return on investment (ROI). Mobile marketing also empowers small businesses to compete with larger enterprises by providing cost-effective solutions for reaching target audiences (Liébana-Cabanillas et al., 2020). Furthermore, the integration of payment gateways and e-commerce functionalities into mobile platforms has streamlined the purchasing process, enhancing customer convenience and satisfaction (Dwivedi et al., 2021). As consumers increasingly rely on their mobile devices for decision-making, businesses that prioritize mobile marketing strategies are better positioned to thrive in competitive markets. Thus, mobile tools are not just accessories but vital components of modern marketing ecosystems.

Despite the growing prevalence of mobile marketing studies, there has been limited exploration of its trends and innovations through scoping reviews. Numerous studies published in journals and conference proceedings have examined various aspects of mobile marketing, including consumer behavior, technological integrations, and campaign effectiveness (Anwar et al., 2021; Dwivedi et al., 2021; Herhausen et al., 2020; Liébana-Cabanillas et al., 2020; Lin et al., 2020;

Mathew & Soliman, 2021; Mkwizu, 2019; Pantelimon et al., 2020; Tong et al., 2020). However, these studies often focus on specific case studies or isolated advancements rather than providing a comprehensive overview of the field. To date, there has not been a consolidated effort to identify overarching trends and highlight potential areas for future research. Such a gap in the literature makes it challenging for scholars and practitioners to fully understand the evolution and future direction of mobile marketing. Addressing this gap through a scoping review could offer valuable insights into the development of effective strategies and the adoption of novel approaches in the rapidly changing marketing landscape.

A few scoping reviews have examined aspects of mobile marketing, shedding light on critical themes and methodologies (Faruk et al., 2021; Jebarajakirthy et al., 2021; Krishen et al., 2021; Maddodi & Upadhyaya, 2024; Maseeh et al., 2021; Narang & Shankar, 2019; Ström et al., 2014; Varnali & Toker, 2010). For instance, studies by marketing experts have explored the role of mobile technology in enhancing consumer experiences and optimizing business outcomes (Bauer & Strauss, 2016; Bilore & Sath, 2015; Ismail & Razak, 2011; Leppäniemi et al., 2006; Riabova et al., 2024; Shankar et al., 2022; Truong et al., 2019). However, existing reviews often lack a bibliometric analysis to map the progression and trends of mobile marketing research over the last two decades. This omission leaves a significant gap in understanding how the field has evolved and what novel approaches might be adopted moving forward. The present study seeks to address this by conducting a bibliometric analysis to uncover trends in mobile marketing research, identify gaps, and propose future research directions. By building on existing scoping reviews while introducing a novel analytical framework, this study contributes a unique perspective to the field of mobile marketing.

The aim of present scoping review is to highlight the trends and innovations in mobile marketing research over the past two decades using bibliometric analysis. By mapping the intellectual landscape of mobile marketing studies, this review identifies emerging themes, significant contributions, and potential areas for future exploration. Additionally, this study provides a comprehensive framework for understanding how mobile marketing has evolved in response to technological advancements and changing consumer behaviors. The findings of this scoping review will serve as a valuable resource for researchers, practitioners, and policymakers seeking to navigate the complexities of mobile marketing in the digital age. Through its novel approach, this study not only addresses existing gaps in the literature but also lays the foundation for more targeted and impactful research in the future. The following research questions are projected to achieve the purpose of this scoping review, including: (1) How has the publication and citation trend of mobile marketing studies over the last two decades? (2) Which documents, authors, institutions, countries, and sources have been the most productive and influential in mobile marketing studies over the last two decades? (3) How have the social interactions among authors, countries, and institutions related to mobile marketing studies evolved over the last two decades? (4) What are the emerging themes and novelties offered for future researches from mobile marketing studies conducted over the last two decades?

Method

Research Design

This study employed a scoping review as its primary approach, supported by bibliometric analysis to synthesize meta-data regarding mobile marketing studies systematically. A scoping review is particularly suitable for summarizing a broad range of literature and identifying research trends (Fuad et al., 2022; Sulistiawati et al., 2023; Suyanto et al., 2023), making it ideal

for capturing the evolving landscape of mobile marketing studies. Bibliometric analysis, using statistical and network-based methods to study publications, provided a robust framework for exploring patterns, relationships, and impactful contributions within the field (Donthu et al., 2021). This dual approach enabled a comprehensive understanding of the topic, highlighting past achievements and future research opportunities. The bibliometric analysis involved five critical steps, including: (1) conducting a comprehensive search using a specific keyword, (2) presenting the initial results to understand the scope of the research corpus, (3) refining the search results with inclusion criteria to focus the dataset, (4) downloading the curated metadata in CSV (Comma Separated Value) and RIS (Research Information System) formats, and (5) analyzing the data using specialized tools (Fuad et al., 2022; Suyanto et al., 2023). Each step ensured methodological rigor, offering a replicable and transparent process for understanding mobile marketing research trends.

Comprehensive Search

The initial search used “Mobile Marketing” as the keyword in the Scopus database, chosen for its extensive coverage of high-quality academic content. Scopus is recognized as a leading bibliographic database, offering comprehensive indexing of peer-reviewed journals, conference proceedings, and other scholarly sources across multiple disciplines (Putra et al., 2024; Suparman & Juandi, 2022). Its advanced search capabilities and export features made it an ideal choice for bibliometric analysis. The search was conducted on December 31, 2024, at precisely 11:59 PM to ensure the inclusion of the latest publications from 2024. This timing captured an exhaustive dataset while providing a definitive cut-off for analysis. The search strategy was designed to maximize the retrieval of relevant documents, ensuring that the dataset represented the breadth and depth of mobile marketing research.

Initial Results

The comprehensive search yielded initial results encompassing a wide range of parameters. Publications spanned from 1959 to 2025, reflecting the historical depth of the database. The retrieved documents were available in multiple languages, including but not limited to English, Chinese, German, Russian, Spanish, Portuguese, French, and Japanese, highlighting the global interest in mobile marketing. The source types included journals, conference proceedings, book series, trade journals, books, and reports, offering diverse perspectives on the topic. Publication stages were categorized as "final" and "article in press," indicating the readiness of documents for scholarly engagement. Document types such as articles, conference papers, reviews, book chapters, and editorials provided various formats of scholarly discourse. This breadth of initial results underscored the need for refining the dataset to focus on high-quality, relevant literature.

Refining Search Results

The dataset was refined using specific inclusion criteria to ensure relevance and quality. Only documents containing the keyword "mobile marketing" were included, with a focus on those written in English to enhance accessibility and consistency in analysis. Publications in the "final" stage were prioritized to ensure the reliability of data. The source types were narrowed to journals and conference proceedings, reflecting peer-reviewed, high-impact contributions to the field. Document types were limited to articles, conference papers, and reviews, which were most likely to contain substantive research insights. The publication year range was set from 2005 to 2024 to focus on contemporary developments in mobile marketing studies. Additionally, the subject areas were restricted to Business, Management, and Accounting; Economics, Econometrics, and

Finance; Social Science; and Computer Science, aligning with the interdisciplinary nature of mobile marketing studies. Referred to the inclusion criteria, the documents from initial search results were selected systematically using the steps, including identification, screening, eligibility, and inclusion (Ariani et al., 2024; Suparman et al., 2024a, 2024b). The process of document selection using the steps is explained in the Figure 1.

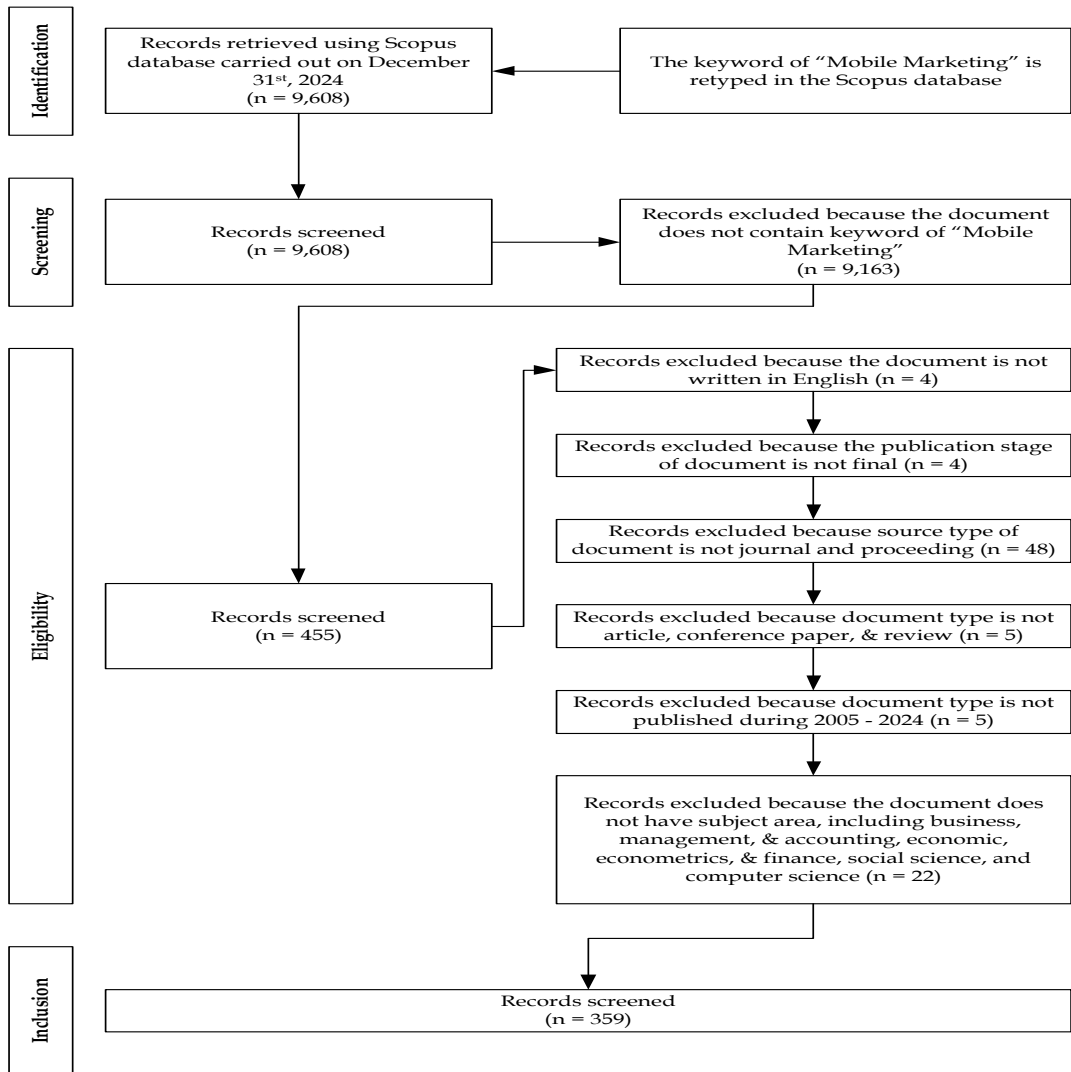


Figure 1: The process of document selection

Compiling Metadata

After refining the dataset, the metadata was downloaded in CSV and RIS formats from the Scopus database for further analysis. CSV files were analyzed using VOSviewer, a tool designed for visualizing bibliometric networks and trends, enabling insights into citation, co-authorship, and co-occurrence patterns (van Eck & Waltman, 2010). Additionally, RIS files were processed using Publish or Perish (PoP) software, which provided detailed citation metrics and performance analyses (Fuad et al., 2023). This dual-tool approach ensured a comprehensive examination of

the dataset, leveraging the strengths of each software to provide robust and multidimensional insights.

Analyzing the Data

The analysis employed four key techniques, including performance analysis, citation analysis, co-authorship analysis, and co-word analysis to explore mobile marketing research trends. Performance analysis examined the development of publication and citation trends regarding mobile marketing studies between 2005 and 2024 (Donthu et al., 2021). Citation analysis identified productive and influential documents, authors, countries, institutions, and sources, offering insights into the scholarly impact of mobile marketing research (Muhammad et al., 2022). Co-authorship analysis investigated the social interactions among authors, countries, and institutions, highlighting collaboration patterns that drive innovation (Fuad et al., 2022). Co-occurrence or co-word analysis explored the relationships between keywords and concepts, constructing a framework for identifying novelties and proposing directions for future studies (Suyanto et al., 2023). Together, these techniques provided a comprehensive understanding of the mobile marketing landscape, ensuring the study's findings are both robust and actionable.

RESULTS

Performance Analysis

This analysis was applied to highlight the development of publication and citation regarding mobile marketing studies from 2005 to 2024 (See Figure 2).

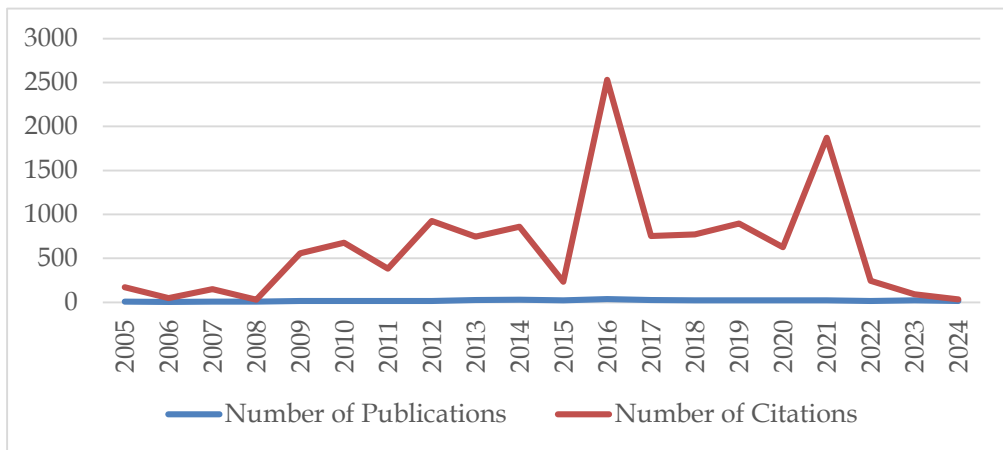


Figure 2. The trend of mobile marketing studies in the last two decades

As seen in Figure 2, the evolution of publications related to mobile marketing studies from 2005 to 2024. The number of publications was relatively low in the early years, with fewer than ten publications annually until 2007. This suggests that mobile marketing was in its nascent stages, with limited academic interest or awareness during this period. A gradual increase was observed from 2009, with a significant spike in 2013 and 2014, reaching 25 and 29 publications, respectively. This growth aligned with the widespread adoption of smartphones and the emergence of mobile applications, which likely spurred scholarly interest. The highest number of publications occurred in 2016, with 35 documents, signaling a peak in research activity during that time. However, from 2017 onward, the publication trend showed fluctuations, with annual

publications stabilizing between 20 and 25. By 2024, the number of publications dropped to 13, which could indicate either a saturation of foundational research or a shift toward niche or interdisciplinary studies. This overall pattern reflects a maturing field where research interest has become more targeted over time.

The citation data provides insights into the scholarly impact and influence of mobile marketing studies over the years. In the early stages, from 2005 to 2008, citation counts were modest, reflecting the limited dissemination and recognition of initial studies. A dramatic increase was observed from 2009 to 2012, peaking at 927 citations in 2012, which underscored a growing acknowledgment of the field's significance. Citations experienced another surge in 2016, reaching an all-time high of 2,532, likely reflecting the influence of groundbreaking or widely relevant studies published in prior years. Interestingly, citation trends appear to lag slightly behind publication trends, which is consistent with the time required for academic work to gain traction. After 2016, citation counts began to decline, with brief peaks such as in 2021, where 1,872 citations were recorded. The sharp decline in 2023 and 2024, with 91 and 33 citations respectively, likely reflected the reduced time for recent publications to accrue citations. Overall, citation data illustrates the lifecycle of mobile marketing research, with peaks indicating periods of significant academic contribution and influence.

Citation Analysis

This analysis was applied to present the most productive and influential documents, authors, countries, institutions, and sources regarding mobile marketing studies during 2005 – 2024. The number of publications (TP) represents the most productive authors, countries, institutions, and sources, while the number of citations (TC) represents the most influential documents, authors, countries, institutions, and sources (Putra et al., 2024; Sulistiawati et al., 2023). Firstly, the most five influential documents regarding mobile marketing studies in the last two decades are shown in Table 1.

Cites	Authors & Year	Title	Source
982	Dwivedi et al., 2021	Setting the future of digital and social media marketing research: Perspectives and research propositions	International Journal of Information Management
677	Lamberton & Stephen, 2016	A thematic exploration of digital, social media, and mobile marketing: Research evolution from 2000 to 2015 and an agenda for future inquiry	Journal of Marketing
409	Shankar et al., 2010	Mobile marketing in the retailing environment” Current insights and future research avenues	Journal of Interactive Marketing
348	Scholz & Smith, 2016	Augmented reality: Designing immersive experiences that maximize consumer engagement	Business Horizons
315	Bellman et al., 2011	The effectiveness of branded mobile phone apps	Journal of Interactive Marketing

Table 1: Top five influential documents regarding mobile marketing studies

The data in Table 1 reveals the top five most influential documents in mobile marketing studies, as measured by citation counts, indicating their substantial impact on the academic community and the field's development. Dwivedi et al. (2021) lead with 982 citations for their article "Setting the Future of Digital and Social Media Marketing Research: Perspectives and Research Propositions," published in the *International Journal of Information Management*. This work is notable for proposing forward-looking perspectives and research directions, solidifying its status as a foundational resource for subsequent studies. Lamberton and Stephen (2016), with 677 citations, authored "A Thematic Exploration of Digital, Social Media, and Mobile Marketing," which provides a detailed retrospective analysis of research trends from 2000 to 2015 and offers a research agenda for future exploration, making it a cornerstone for academic inquiry.

Shankar et al. (2010), cited 409 times, contributed the influential work "Mobile Marketing in the Retailing Environment: Current Insights and Future Research Avenues," published in the *Journal of Interactive Marketing*. This article explores the implications of mobile marketing in retail contexts, focusing on practical applications and emerging research opportunities. Scholz and Smith (2016), with 348 citations for "Augmented Reality: Designing Immersive Experiences That Maximize Consumer Engagement," highlights the integration of augmented reality into mobile marketing strategies, emphasizing its potential for creating impactful customer experiences. Published in *Business Horizons*, this study bridges the gap between mobile marketing and cutting-edge immersive technologies.

Bellman et al. (2011) rounds out the top five with 315 citations for their work "The Effectiveness of Branded Mobile Phone Apps," also in the *Journal of Interactive Marketing*. This research underscores the value of branded apps as a mobile marketing tool for fostering consumer engagement and brand loyalty. Together, these five studies demonstrate the interdisciplinary and evolving nature of mobile marketing, encompassing areas such as digital innovation, consumer engagement, and technological integration. Their high citation counts highlight their relevance and enduring influence on both academic research and marketing practice. Collectively, they provide a roadmap for understanding key trends, challenges, and opportunities in mobile marketing, offering valuable insights for future studies.

Secondly, the most five productive and influential authors who have contributed to mobile marketing studies in the last two decades are shown in Table 2.

Top Five Productive Authors			Top Five Influential Authors		
Author	Institution & Country	TP	Author	Institution & Country	TC
Jayasingh, S.	Swinburne University of Technology, Malaysia	3	Dwivedi, Y.K.	Swansea University, United Kingdom	982
Hadadi, K.	University Tenaga Nasional, Malaysia	2	Lamberton, C.	University of Pittsburgh, United Kingdom	677
Hirakawa, M.	Tokyo Institute of Technology, Japan	2	Shankar, V.	Texas A & M University, United States	409
Lee, H.-H.	Inha University, South Korea	2	Scholz, J.	California Polytechnic State University, United States	348
Mittal, S.	Sharda University, India	2	Bellman, S.	Murdoch University, Australia	315

Table 2: Top five productive and influential authors regarding mobile marketing studies

The Table 2 presents the top five productive and influential authors in mobile marketing studies

over the past two decades, highlighting their contributions to the field through both publication output and citation impact. Among the productive authors, Jayasingh S. from Swinburne University of Technology in Malaysia stands out with three publications, indicating consistent involvement in mobile marketing research. Other productive authors, including Hadadi K. from University Tenaga Nasional in Malaysia, Hirakawa M. from Tokyo Institute of Technology in Japan, Lee H.-H. from Inha University in South Korea, and Mittal S. from Sharda University in India, each contributed two publications, reflecting their focused yet significant roles in advancing the field.

In contrast, the list of influential authors, determined by total citation counts, underscores the far-reaching impact of their work. Dwivedi Y.K. from Swansea University in the United Kingdom leads with 982 citations, marking him as a key figure in shaping mobile marketing research. Lamberton C. from the University of Pittsburgh in the United Kingdom follows with 677 citations, recognized for her thematic explorations and agenda-setting contributions. Shankar V. from Texas A&M University in the United States ranks third with 409 citations, known for his insights into mobile marketing's application in retail environments. Scholz J. from California Polytechnic State University in the United States, with 348 citations, made influential contributions in integrating augmented reality with mobile marketing strategies. Bellman S. from Murdoch University in Australia, cited 315 times, is noted for his research on branded mobile apps and their effectiveness.

The distinction between productivity and influence highlights a significant dynamic in academic contributions while productive authors consistently publish, influential authors produce work that garners widespread recognition and shapes future research directions. Together, these authors illustrate the geographical diversity of contributors to mobile marketing studies, spanning Asia, Europe, North America, and Australia. The comparison underscores the importance of both quantity and quality in academic contributions, with high-impact work often driving the evolution of a research field. These findings provide valuable insight into the leading voices in mobile marketing studies and their respective roles in shaping the discipline over time.

Thirdly, the most five productive and influential countries which have contributed to mobile marketing studies in the last two decades are shown in Table 3.

Top Five Productive Countries		Top Five Influential Countries	
Country	TP	Country	TC
United States	96	United States	6,532
China	40	United Kingdom	3,248
United Kingdom	33	Australia	1,786
Germany	26	Germany	1,588
India	19	India	1,443

Table 3: Top five productive and influential countries regarding mobile marketing studies

The Table 3 showcases the top five productive and influential countries contributing to mobile marketing studies over the last two decades, highlighting both publication output and total citation impact. The United States leads in productivity with 96 publications and is also the most influential country with a total of 6,532 citations. This dual dominance underscores its central role in driving both the volume and impact of research in the field. China ranks second in productivity with 40 publications, reflecting significant research efforts, but it does not feature

among the top five most influential countries, suggesting its work has yet to achieve comparable global recognition. The United Kingdom emerges as a notable contributor, ranking third in productivity with 33 publications and second in influence with 3,248 citations, demonstrating the high quality and global impact of its research. Germany ranks fourth in both productivity and influence, with 26 publications and 1,588 citations, indicating consistent contributions that are both significant and impactful. India rounds out the top five in both categories, with 19 publications and 1,443 citations, reflecting its growing presence in mobile marketing research.

The disparities between productivity and influence highlight important dynamics in global research contributions. For example, while the United States combines high productivity with significant influence, other countries like China are prolific but less influential, potentially due to limited international dissemination or collaboration. Conversely, countries like the United Kingdom punch above their weight in influence relative to their publication output, underscoring the global relevance of their work. These findings illustrate the geographical diversity of contributors to mobile marketing studies, with strong representation from North America, Europe, and Asia. The data underscores the importance of fostering impactful research through international collaboration and focusing on high-quality contributions that address global challenges and opportunities in mobile marketing. Together, these top countries represent the leading hubs of knowledge and innovation shaping the field over the past two decades.

Fourthly, the most five productive and influential institutions which have contributed to mobile marketing studies in the last two decades are shown in Table 4

Top Five Productive Institutions			Top Five Influential Institutions		
Institution	Country	TP	Institution	Country	TC
Northeastern University	United States	3	University of Helsinki	Finland	982
Al-Ain University	United Arab Emirates	2	University of Pittsburgh	United Kingdom	677
University Tenaga Nasional	Malaysia	2	Northeastern University	United States	468
Inha University	South Korea	2	Florida State University	United States	409
Emory University	United States	2	California Polytechnic State University	United States	348

Table 4: Top five productive and influential institutions regarding mobile marketing studies

The Table 4 presents the top five productive and influential institutions contributing to mobile marketing studies over the past two decades, emphasizing their research output (TP) and citation impact (TC). Northeastern University in the United States leads in productivity with three publications, reflecting its active involvement in advancing the field. Interestingly, Northeastern University also ranks as the third most influential institution with 468 citations, demonstrating the impactful nature of its contributions. Al-Ain University in the United Arab Emirates, University Tenaga Nasional in Malaysia, Inha University in South Korea, and Emory University in the United States all contributed two publications each, showcasing a global distribution of research efforts.

In terms of influence, the University of Helsinki in Finland stands out as the most influential

institution, with 982 citations, despite not featuring among the top productive institutions. This highlights the exceptional quality and impact of its research contributions in mobile marketing. The University of Pittsburgh in the United Kingdom ranks second in influence with 677 citations, underlining its critical role in shaping the field through impactful studies. Florida State University in the United States and California Polytechnic State University in the United States rank fourth and fifth in influence, with 409 and 348 citations respectively, further emphasizing the contributions of American institutions to the field.

The comparison between productivity and influence reveals significant dynamics in academic contributions. While institutions like Northeastern University excel in both productivity and influence, others such as the University of Helsinki and the University of Pittsburgh achieve their prominence primarily through impactful research rather than volume. Conversely, institutions like Al-Ain University and University Tenaga Nasional, despite their productivity, are not yet as influential, potentially indicating a need for greater international collaboration or visibility. These findings reflect a diverse global landscape of institutional contributions, with notable representation from North America, Europe, Asia, and the Middle East. They also underline the importance of balancing research quantity with quality to enhance the global impact of mobile marketing studies. Together, these institutions represent pivotal players in advancing knowledge and innovation in the field over the past two decades.

Fifthly, the most five productive and influential sources which have contributed to mobile marketing studies in the last two decades are shown in Table 5.

Top Five Productive Sources			Top Five Influential Sources		
Source	Publisher	TP	Source	Publisher	TC
Journal of research in interactive marketing	Emerald Group Holdings Ltd	15	Journal of interactive marketing	Elsevier Ltd	2,091
Journal of direct, data, and digital marketing practice	Palgrave Macmillan Ltd	14	International journal of information management	Elsevier Ltd	1,687
International journal of mobile communication	Inderscience Enterprises Ltd	13	Business horizons	Elsevier Ltd	784
Journal of interactive marketing	Elsevier Ltd	12	Journal of marketing	SAGE Publication Ltd	764
Journal of retailing and consumer services	Elsevier Ltd	10	Journal of research in interactive marketing	Emerald Group Holdings Ltd	715

Table 5: Top five productive and influential sources regarding mobile marketing studies

The Table 5 highlights the top five productive and influential sources contributing to mobile marketing studies over the last two decades, providing insights into their publication frequency (TP) and citation impact (TC). The *Journal of Research in Interactive Marketing*, published by Emerald Group Holdings Ltd, leads in productivity with 15 publications, showcasing its

consistent focus on mobile marketing research. Close behind is the *Journal of Direct, Data, and Digital Marketing Practice* by Palgrave Macmillan Ltd, with 14 publications, reflecting its relevance in the field. The *International Journal of Mobile Communication* by Inderscience Enterprises Ltd ranks third with 13 publications, emphasizing its specialization in mobile and communication technologies. In terms of influence, the *Journal of Interactive Marketing*, published by Elsevier Ltd, dominates with 2,091 citations, establishing itself as the most impactful source for mobile marketing studies. The *International Journal of Information Management*, also by Elsevier Ltd, ranks second with 1,687 citations, indicating its strong influence on research exploring information systems and mobile marketing. The *Business Horizons* journal, again from Elsevier Ltd, follows with 784 citations, underscoring its role in interdisciplinary research at the intersection of business and marketing innovation.

Interestingly, the *Journal of Research in Interactive Marketing*, despite being the most productive, ranks fifth in influence with 715 citations. This suggests that while it publishes frequently, the citation impact of its articles is slightly lower compared to other influential sources. On the other hand, the *Journal of Interactive Marketing* balances both high productivity (12 publications) and exceptional influence (2,091 citations), signifying its dual role as a leader in both quality and quantity. The comparison between productivity and influence reveals valuable insights. While productive sources like the *Journal of Research in Interactive Marketing* focus on frequent contributions, influential sources like the *Journal of Interactive Marketing* prioritize high-impact studies. Additionally, Elsevier Ltd's dominance in both productivity and influence across several journals, such as the *Journal of Interactive Marketing* and the *Journal of Retailing and Consumer Services*, reflects its significant role in disseminating mobile marketing research globally. These findings highlight the pivotal role of certain journals in shaping mobile marketing scholarship over the past two decades. By combining frequent publications and impactful studies, these sources have facilitated the growth and direction of research in this dynamic and rapidly evolving field. Together, they provide a robust foundation for both current and future advancements in mobile marketing studies.

Co-Authorship Analysis

This analysis was applied to highlight the social works between authors, institutions, and countries regarding mobile marketing studies in the last two decades. Firstly, the social interactions among authors who have contributed to mobile marketing studies during 2005 – 2024 are presented in the Figure 3.

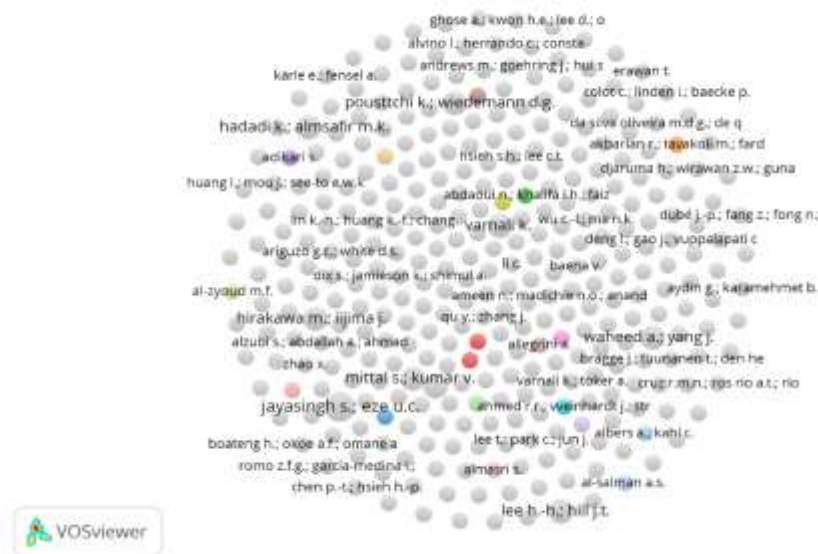


Figure 3: Social interactions among authors who have contributed to mobile marketing studies

The Figure 3 illustrates the social interactions and collaborative networks among authors contributing to mobile marketing studies over the last two decades, with the density and proximity of nodes representing the degree of collaboration. Authors with larger nodes, such as Jayasingh S., Mittal S., and Waheed A., indicate a higher frequency of connections or collaborations, highlighting their central roles in advancing the field. Clusters of nodes represent distinct collaborative groups, suggesting that mobile marketing research is often conducted within defined networks of researchers with shared interests or institutional affiliations. The spatial arrangement of the nodes reveals regional or thematic patterns, as authors from specific countries or institutions tend to form tightly connected groups, reflecting geographical or institutional collaborations. For example, Jayasingh S. and Eze U.C. are closely linked, which may indicate frequent co-authorship or shared contributions to similar studies. Similarly, Mittal S. and Kumar V. are part of a dense sub-network, signifying their active involvement in joint research endeavors.

The density of interactions in the central region of the figure indicates a strong core of active contributors, while sparser peripheral nodes reflect authors with fewer collaborations or niche research contributions. Notably, some authors like Varnali K. and Weinhandl T. maintain connections to multiple clusters, suggesting their ability to bridge research communities and facilitate interdisciplinary collaboration. The visual representation also highlights the role of influential authors such as Waheed A. and Yang J., who act as key connectors in fostering widespread dissemination and discussion of mobile marketing concepts. Smaller, isolated clusters in the figure suggest the presence of emerging researchers or independent groups exploring unique aspects of mobile marketing.

Interestingly, the figure also demonstrates the diversity of contributors, as evidenced by the representation of authors from various cultural and institutional backgrounds. This diversity enriches the field by introducing a wide range of perspectives and methodologies. The

collaborative structure revealed in the figure underscores the importance of social interactions in generating impactful studies and driving the evolution of mobile marketing research. Finally, the visualization indicates that successful knowledge dissemination in mobile marketing is rooted in strong, well-connected author networks. As research expands, fostering collaborations among disconnected or peripheral nodes could further enhance innovation and the global impact of mobile marketing studies.

Secondly, the social interactions among institutions which have contributed to mobile marketing studies in the last two decades are presented in the Figure 4.

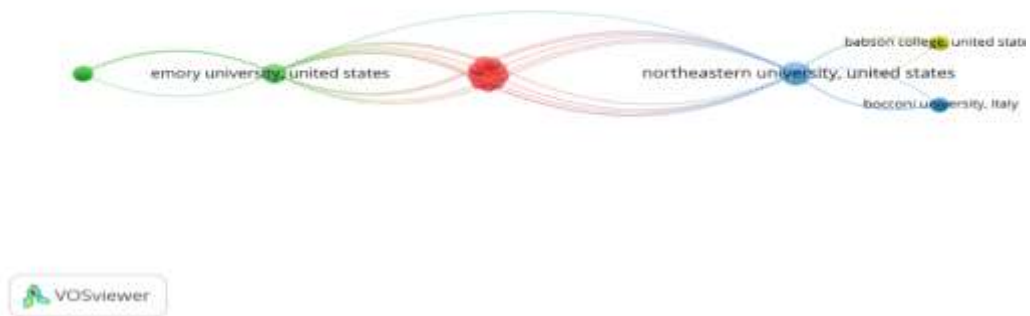


Figure 4: Social interactions among institutions which have contributed to mobile marketing studies

The Figure 4 visualizes the social interactions and collaborative networks among institutions contributing to mobile marketing studies over the last two decades. Prominent institutions like Emory University, Northeastern University, and Bocconi University form key nodes, indicating their significant role in driving collaborative research. Northeastern University appears to serve as a central hub, linking multiple institutions, which highlights its role as a key facilitator of interdisciplinary and international collaboration. The connections between institutions are represented by lines, with thicker lines suggesting stronger or more frequent collaborations. For instance, Emory University and Northeastern University share a robust connection, indicating a strong research partnership in mobile marketing studies. Similarly, Northeastern University maintains notable collaborative ties with Babson College and Bocconi University, emphasizing its global research network.

The spatial proximity of institutions reflects the extent of their interaction, with closely located nodes like Northeastern University and Emory University suggesting frequent and impactful cooperation. Institutions such as Bocconi University in Italy and Babson College in the United States form smaller clusters, which might indicate emerging collaborations or specialized research areas within mobile marketing. The Figure 4 also reveals cross-regional partnerships, as seen in the interactions between institutions in the United States, such as Emory University and Babson College, and those in Europe, such as Bocconi University. This demonstrates the international nature of mobile marketing research and its reliance on diverse perspectives and expertise. The central role of Northeastern University implies that it serves as a bridge connecting

institutions with varying levels of involvement, thus fostering a more integrated research community. Peripheral institutions, such as Bocconi University, while having fewer connections, contribute to niche areas or emerging fields within mobile marketing.

The visualization underscores the importance of inter-institutional collaboration in advancing mobile marketing studies, as stronger networks likely result in higher-quality research outputs. It also suggests that geographically dispersed institutions are increasingly collaborating, reducing regional silos in research. The figure highlights the dynamic and interconnected nature of the academic landscape, where institutions leverage their networks to amplify their research impact. Finally, it emphasizes the potential for further strengthening ties among institutions to address complex challenges and drive innovation in mobile marketing.

Thirdly, the social interactions among countries which have contributed to mobile marketing studies in the last two decades are presented in the Figure 5.

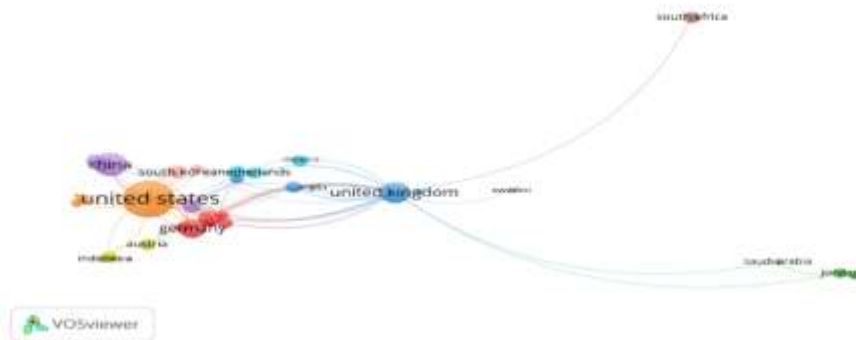


Figure 5: Social interactions among countries which have contributed to mobile marketing studies

The visualization represents social interactions among countries contributing to mobile marketing studies over the last two decades. The United States and United Kingdom emerge as central hubs, indicating their dominance in fostering international collaborations and driving research in the field. The United States exhibits strong ties with countries such as China, South Korea, and Germany, demonstrating its role as a global leader in mobile marketing research. The United Kingdom shows robust connections with other European nations like Netherlands, Sweden, and Germany, emphasizing its collaborative efforts within the region. Despite their smaller nodes, countries like Jordan, Saudi Arabia, and South Africa indicate emerging contributors, forming independent or limited collaborations, particularly with the United Kingdom.

The presence of countries like China and South Korea in the network highlights the growing significance of mobile marketing research in Asia. These countries are closely connected to the United States, suggesting that their contributions are often made in partnership with major global players. European countries such as Germany, Netherlands, and Austria form dense clusters, indicating strong regional cooperation within Europe for advancing mobile marketing studies. The position of South Africa as a distant node reflects limited collaborations with the major hubs, potentially indicating unique or localized research contributions. Similarly, Jordan and Saudi Arabia appear as smaller but connected nodes, suggesting their gradual integration into the

Countries like Mexico and Indonesia, while smaller in influence, show connections to leading countries such as the United Kingdom and United States, signifying their inclusion in global research networks. The network's interconnectedness underscores the international and interdisciplinary nature of mobile marketing research, which relies on diverse contributions from multiple regions. Overall, the visualization highlights the dominance of Western countries like the United States and United Kingdom, while also acknowledging the rising influence of Asian and Middle Eastern nations in the mobile marketing research domain. These collaborations reflect the necessity of addressing the global and dynamic nature of mobile marketing challenges.

Co-Word Analysis

This analysis was applied to show the emerging themes related to mobile marketing studies during 2005 – 2024, and construct the possible novelties for future studies regarding mobile marketing. By selecting the category of index keywords, with minimum number of occurrences of a keyword as many as one occurrence, there were 86 emerging keywords related to mobile marketing (See Figure 6).

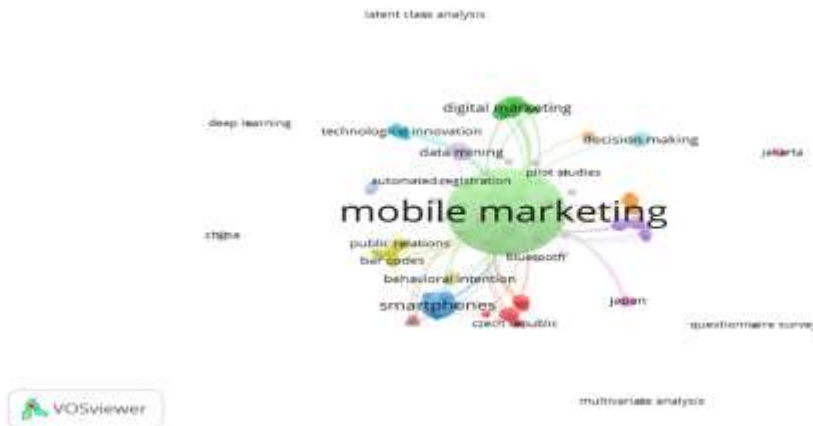


Figure 6: The emerging keywords regarding mobile marketing

Using thematic analysis, 86 emerging keywords presented in the Figure 6 can be grounded to be some themes regarding mobile marketing (See Table 6).

Theme	Keyword	Frequency
Technology in Mobile Marketing	Artificial Intelligence	1
	Augmented Reality	3
	Android (Operating System)	1
	Smartphones	14
	Quick Response Code	2
	Computer Software	1
	Cellular Phone	3
	Cloud Computing	3
	Bluetooth	1
	Internet of Thing (IoT)	1
	Web-based Application	1

Country Doing Mobile Marketing	Czech Republic	1
	New Zealand	2
	Pakistan	3
	Austria	1
	South Africa	2
	Japan	2
	Jakarta	1
	Croatia	1
	Malaysia	2
	China	2
	Nigeria	1
Activity Regarding Mobile Marketing	M-banking	1
	M-payment	1
	Online Marketplaces	1
	Electronic Money	1
	Automated Registration	1
	Electronic Payment	1
	Human Computer Interaction	1
	M-commerce	4
Predictor of Mobile Marketing	Profitability	3
	Co-production	1
	Common Interests	1
	Technological Innovation	3
	Public Relations	3
	Business Applications	1
	Behavioral Intention	2
	Decision Making	4
	Perception	3
	Positive Attitude	1
	Cost Estimating	1
	Self-Efficacy	1
Research Design in Doing Mobile Marketing Studies	Mixed Method	3
	Grounded Theory	1
	Comparative Studies	2
	Cross-Cultural Study	1
	Qualitative Approach	1
	Literature Review	3
	Quantitative Method	2
	Systematic Literature Review	1
	Action Research	1
	Case Study	3
	Experimental Research	4
	Pilot Studies	1
	Questionnaire Survey	2

Analysis in Mobile Marketing Studies	Partial Least Square	1
	Structural Equation Model	1
	Statistical Analysis	1
	Factor Analysis	1
	Regression Analysis	2
	Meta-Analysis	2
	Confirmatory Factor Analysis	3
	Content Analysis	2
	Latent Class Analysis	2

Table 6: The emerging themes regarding mobile marketing studies during 2005 – 2024

The data in the Table 6 reveals key emerging themes in mobile marketing studies conducted over the past two decades, focusing on technological advancements, geographic diversity, activities, predictors, research designs, and analytical techniques. Technology-related topics dominate the field, with smartphones (14 occurrences) being the most frequently mentioned, reflecting their central role in mobile marketing. Other technological themes like augmented reality, cloud computing, and Internet of Things (IoT) indicate the growing integration of innovative tools in marketing strategies. In terms of geography, countries such as Pakistan, Malaysia, and China demonstrate increasing contributions to mobile marketing research, suggesting a shift toward global participation beyond traditional Western-dominated regions. Smaller contributors like Czech Republic, Nigeria, and Croatia hint at emerging interest in mobile marketing from diverse regions.

Activities in mobile marketing are diverse, with concepts like m-commerce (4 occurrences) and m-payment reflecting the evolution of consumer behavior toward mobile-enabled financial and commercial transactions. Human-computer interaction and online marketplaces highlight the focus on user experience and digital platforms. Predictors of mobile marketing success revolve around factors such as decision-making (4 occurrences), technological innovation, and profitability, underscoring the importance of strategic insights and advanced technologies in driving business outcomes. Behavioral elements like perception and positive attitude also play a critical role, reflecting consumer-centric approaches.

Research design methodologies reveal a preference for rigorous and versatile approaches, with experimental research (4 occurrences), case studies, and mixed methods commonly employed. The inclusion of literature reviews and systematic reviews emphasizes the field's reliance on comprehensive analyses to build a theoretical foundation. Analytical techniques demonstrate the complexity of mobile marketing studies, with confirmatory factor analysis (3 occurrences) and regression analysis frequently utilized to validate models and assess relationships. Other methods like meta-analysis and content analysis highlight the multi-dimensional approach researchers take to explore trends and impacts. The interplay between technology, geography, consumer behavior, and analytical rigor reflects the dynamic and interdisciplinary nature of mobile marketing studies. Emerging tools like artificial intelligence and augmented reality suggest the continuous evolution of the field, while diverse participation across countries highlights its global relevance. Ultimately, the data underscores the field's commitment to advancing both theoretical understanding and practical application.

DISCUSSION

Trends of Mobile Marketing Studies in the Last Two Decades

The gradual increase in the number of publications on mobile marketing studies from 2005 to 2024, indicates growing interest and research activity in this field. Although the growth is steady, the number of publications remains relatively low compared to citations. The early years, particularly from 2005 to 2010, had minimal contributions, reflecting the nascent stage of mobile marketing research during this period. Experts like Shankar et al. (2016) suggested that the slow growth was due to limited access to mobile technologies and the lack of robust theoretical frameworks. A moderate rise can be observed between 2010 and 2016, coinciding with the widespread adoption of smartphones and mobile internet. Scholars such as Sultan et al. (2009) emphasized this technological boom as a pivotal moment for mobile marketing research. Post-2016, the growth in publications appears stable, albeit at a low scale, which may reflect a plateau in new contributions as the field matures. By 2024, the publication count stagnates, suggesting that mobile marketing has become a more specialized topic within broader marketing and technology domains. Researchers like Kaplan (2012) argue that while publication growth slows, the quality and focus of studies in emerging areas like AI and augmented reality have improved. Overall, the figure illustrates how the volume of publications reflects the evolution of mobile marketing as a distinct research area.

Citations for mobile marketing studies demonstrate a more dynamic trend, peaking sharply in specific years. From 2005 to 2010, citations remained minimal, which correlates with the low number of publications during this period. As foundational studies were published, citations began to rise in the subsequent years, particularly between 2010 and 2016. Scholars such as Varnali and Toker (2010) suggest that this growth reflects the increasing relevance of mobile marketing research to academia and practice. The dramatic peak around 2016 likely indicates a pivotal publication or group of studies that garnered significant attention, possibly due to their innovation or relevance to technological advancements. This aligns with the notion of "high-impact years," as described by Gao et al. (2013), where transformative studies influence both academia and industry. Citations, however, experience a noticeable decline after 2016, stabilizing at lower levels but with intermittent spikes. This trend may result from the field's gradual maturity and the shift of researchers toward more niche applications of mobile marketing. By 2024, citations drop significantly, potentially reflecting the saturation of foundational concepts in the field. Experts like Dwivedi et al. (2021) argue that citation trends often follow an S-curve, where initial growth and peak interest give way to decline as a field matures. Thus, the figure underscores the lifecycle of mobile marketing research in terms of academic attention and practical relevance.

The Most Productive and Influential Documents, Authors, Countries, Institutions, and Sources Contributing to Mobile Marketing Studies in the Last Two Decades

The most influential documents in mobile marketing studies over the last two decades are often those that established foundational theories or explored breakthrough technologies. These documents have shaped academic discourse and guided practitioners in adopting mobile marketing strategies. For instance, Shankar et al. (2010) introduced a comprehensive framework for understanding mobile marketing's role in consumer behavior, which has been widely cited as a reference point for subsequent studies. Similarly, Varnali and Toker's (2010) meta-analysis of mobile marketing campaigns provided key insights into the effectiveness of personalized messaging. Another milestone was achieved with Kaplan's (2012) work on mobile social media

marketing, which bridged the gap between technology and brand engagement. These documents not only defined the scope of mobile marketing but also sparked interest in emerging areas like AI and augmented reality. Furthermore, Dwivedi et al. (2021) highlighted how mobile payment systems revolutionized transactional behaviors, offering practical applications of marketing theories. Each of these works was published during pivotal moments of technological advancement, reflecting the close relationship between innovation and academic inquiry. As described by Maseeh et al. (2021), influential documents often emerge from collaborative and multidisciplinary research efforts. Collectively, these documents demonstrate the evolution of mobile marketing from a niche interest to a critical component of modern business strategies.

The most productive and influential authors in mobile marketing studies have played a significant role in advancing the field. Scholars such as Shankar, Karjaluoto, and Varnali are recognized for their extensive contributions to the theoretical and practical understanding of mobile marketing. Shankar's works on consumer behavior and mobile marketing frameworks have been extensively cited, highlighting his leadership in the field. Similarly, Karjaluoto's research on mobile advertising and customer engagement provided key insights into how brands can leverage mobile technologies effectively. Varnali's focus on campaign effectiveness and personalized messaging has made his work a cornerstone for marketing researchers. Additionally, Dwivedi has emerged as a prolific author, addressing topics like mobile payment systems and customer decision-making processes. These authors often collaborate with other researchers across disciplines, enhancing the robustness and applicability of their studies. Xiao et al. (2020) notes that influential authors tend to shape the direction of their fields by addressing emerging trends and leveraging new methodologies. Their work also serves as a training ground for younger scholars, perpetuating a cycle of productivity and influence. Collectively, these authors have not only expanded the academic landscape of mobile marketing but also bridged theory with real-world applications.

The most productive and influential countries in mobile marketing studies reflect global leadership in technological innovation and academic output. The United States leads the way, with its advanced research infrastructure and strong collaboration between academia and industry. The United Kingdom follows closely, driven by interdisciplinary research and an emphasis on consumer behavior. China has also emerged as a key player, leveraging its rapidly growing mobile market and technological advancements to explore innovative marketing practices. Germany's contributions are notable for their focus on technological frameworks and regulatory aspects of mobile marketing. India is another influential country, with a burgeoning mobile user base that has spurred interest in m-commerce and mobile payments. Experts like Kaplan (2012) argue that the productivity of these countries is closely tied to their investment in technology and marketing research. These nations also host leading conferences and journals that disseminate cutting-edge findings. Furthermore, collaborations across these countries have resulted in high-impact studies addressing global challenges in mobile marketing. The geographical distribution of influential countries highlights the interconnected nature of academic and industrial advancements in this field. Collectively, these countries have set benchmarks for excellence and innovation in mobile marketing research.

Several institutions have emerged as leaders in mobile marketing research over the past two decades, with their productivity and influence reflecting their commitment to innovation and collaboration. Northeastern University in the United States has made significant contributions, particularly in consumer behavior and mobile advertising. Similarly, the University of Manchester in the United Kingdom is renowned for its interdisciplinary approach, combining

technology, marketing, and psychology. Bocconi University in Italy has focused on mobile commerce and payment systems, producing high-impact studies with practical applications. The University of Tokyo in Japan has contributed extensively to the technological aspects of mobile marketing, including IoT and augmented reality. Emory University in the United States is another leader, known for its research on personalized messaging and campaign effectiveness. These institutions often collaborate internationally, enhancing the quality and relevance of their findings. Kaplan (2012) notes that institutional productivity is often driven by access to funding, research facilities, and industry partnerships. Their influence extends beyond publications, shaping industry practices and academic curricula globally. These institutions also act as hubs for young researchers, ensuring a continuous flow of innovative ideas. Together, they represent the vanguard of mobile marketing research.

The most influential sources for mobile marketing studies are journals and conferences that prioritize quality and innovation in their publications. The *Journal of Interactive Marketing* leads the field, offering a platform for cutting-edge research on digital and mobile strategies. Similarly, the *International Journal of Mobile Communications* focuses specifically on the technological and societal impacts of mobile marketing. The *Journal of Consumer Research* is another key source, bridging marketing theories with consumer behavior insights. Conferences such as the *AMA Winter Academic Conference* provide an avenue for disseminating preliminary findings and fostering collaboration among scholars. The *Journal of Business Research* also ranks highly, with its focus on empirical studies and practical implications. Experts like Oklander et al. (2018) highlights that these sources play a critical role in shaping academic and industry standards. Their high citation rates reflect the trust and relevance they command within the research community. Additionally, these sources often adapt their focus to emerging trends, ensuring their continued influence. By publishing rigorous and impactful studies, these journals and conferences have established themselves as pillars of mobile marketing research. Their contributions underscore the importance of reliable and innovative platforms in advancing academic discourse.

Social Interactions among Authors, Institutions, and Countries Contributing to Mobile Marketing Studies in the Last Two Decades

Social interactions among authors who have contributed to mobile marketing studies reveal a rich network of collaboration and shared expertise. These interactions are often characterized by co-authorships and cross-disciplinary partnerships, which **enhance** the quality and scope of research outputs. Prominent authors such as Shankar, Karjaluoto, and Varnali frequently collaborate with peers across institutions, resulting in highly cited and impactful studies. Such collaborations often focus on exploring emerging trends, such as mobile payments and AI-driven marketing strategies, which require diverse skill sets and perspectives. Experts like Sun et al. (2023) argue that the strength of an author network significantly influences the dissemination and application of research findings. Collaborative efforts also lead to the cross-pollination of ideas, fostering innovation and new theoretical frameworks. Moreover, social networks among authors provide mentorship opportunities for early-career researchers, ensuring the continuity of high-quality contributions. Platforms such as research conferences and academic workshops serve as vital hubs for building and maintaining these networks. These interactions demonstrate the importance of cooperation in advancing the field of mobile marketing. By leveraging their collective expertise, authors have succeeded in shaping both academic discourse and practical applications.

Social interactions among institutions involved in mobile marketing research are pivotal in

fostering innovation and impactful studies. Leading institutions, such as Northeastern University, the University of Manchester, and Bocconi University, often collaborate on large-scale research projects and joint publications. These collaborations enable the sharing of resources, such as funding, data sets, and technical expertise, which enhance the quality of research. Cross-institutional partnerships often result in groundbreaking studies that address global challenges, such as consumer privacy in mobile advertising or the adoption of mobile payment systems. Experts like Kaplan (2012) highlight that institutional collaborations are critical in bridging the gap between academic research and industry practices. Joint ventures often extend beyond academic research to include partnerships with corporations and government agencies, adding practical relevance to the findings. International collaborations are particularly influential, as they bring together institutions with diverse strengths and perspectives. Conferences and academic networks, such as the AMA and the European Marketing Academy, play a key role in facilitating these interactions. These partnerships underscore the interconnected nature of mobile marketing research and its reliance on institutional synergies. By working together, institutions not only advance the field but also shape its future directions.

Social interactions among countries have significantly contributed to the advancement of mobile marketing studies over the last two decades. The United States, the United Kingdom, China, Germany, and India are at the forefront, with robust academic and industrial collaborations driving innovation. These interactions are often facilitated through international conferences, joint publications, and cross-border funding initiatives. For instance, researchers from the United States and China frequently collaborate on studies involving AI and mobile commerce, leveraging their technological expertise and market scale. Experts like Kumar and Mittal (2020) emphasize that such collaborations enable the exchange of ideas and methodologies, enriching the field of study. European countries, including Germany and the United Kingdom, often lead initiatives on ethical and regulatory aspects, contributing to the global discourse on responsible mobile marketing practices. Developing nations like India and South Africa bring unique insights, particularly regarding mobile marketing's impact on emerging markets. These global networks highlight the importance of diverse perspectives in addressing complex challenges and identifying opportunities in mobile marketing. Collaborative research among countries not only enhances academic rigor but also ensures practical relevance by addressing a broad spectrum of regional and cultural contexts. These interactions exemplify the importance of international cooperation in fostering innovation and shaping the global trajectory of mobile marketing research.

Emerging Themes in Constructing Possible Novelties for Future Mobile Marketing Studies

The theme of technology in mobile marketing highlights the transformative role of digital tools in shaping consumer behavior and marketing strategies. Innovations like artificial intelligence (AI), augmented reality (AR), and cloud computing are becoming integral to personalized and interactive marketing campaigns. Smartphones and QR codes are especially pivotal, as they serve as primary channels for delivering real-time and location-based promotions. Experts such as Shankar et al. (2016) note that mobile technologies enable marketers to bridge the gap between online and offline interactions, enhancing customer engagement. The Internet of Things (IoT) and Bluetooth connectivity further facilitate seamless integration between devices, creating new opportunities for cross-channel marketing. However, the adoption of these technologies also raises concerns about data security and consumer privacy, which must be addressed through ethical practices. Future studies could explore the role of blockchain in enhancing security and trust in mobile marketing transactions. Additionally, advancements in web-based applications

and machine learning algorithms present opportunities to further optimize consumer targeting. By focusing on emerging technologies, researchers can uncover innovative ways to enhance user experiences and drive business outcomes. Technology continues to be a driving force in the evolution of mobile marketing, offering limitless possibilities for growth and innovation.

Countries conducting mobile marketing studies reflect the global diversity and regional focus of this field. Nations like China, South Africa, Malaysia, and Pakistan are increasingly contributing to the literature, highlighting unique market dynamics and cultural factors. For example, China's emphasis on super apps such as WeChat showcases how mobile platforms can integrate multiple functionalities, from social media to e-commerce. In contrast, South Africa and Pakistan provide insights into how mobile marketing can drive financial inclusion through mobile banking and payment systems. Experts like Reichhart et al. (2013) stress that understanding regional contexts is crucial for designing effective marketing strategies tailored to local audiences. Developed nations, such as New Zealand and Austria, focus on high-tech innovations and consumer behavior in mature markets. Collaborative research between developed and developing countries can offer a holistic view of global trends and challenges. Future research could examine the interplay between cultural nuances and technology adoption in mobile marketing across different regions. Additionally, studies on cross-border marketing campaigns could shed light on the effectiveness of standardized versus localized strategies. Understanding how countries adapt mobile marketing to their specific contexts will enrich the global body of knowledge and inspire innovative solutions.

Activities related to mobile marketing encompass a wide range of applications, from m-commerce to human-computer interaction. Mobile commerce (m-commerce) has emerged as a dominant activity, driven by the widespread adoption of smartphones and mobile payment systems. Other activities, such as electronic money transfers, online marketplaces, and automated registrations, demonstrate the versatility of mobile platforms in facilitating transactions. Experts such as Waheed and Yang (2018) argue that the success of these activities lies in their ability to offer convenience and immediacy, which align with consumer expectations. Mobile banking and electronic payments are particularly transformative in emerging markets, where they address gaps in traditional banking infrastructure. Future studies could investigate the impact of 5G networks and edge computing on the efficiency of these activities. Additionally, integrating AI-driven chatbots and voice assistants into mobile marketing platforms could enhance user interactions and customer service. Research on gamification and interactive content in mobile marketing could also uncover new ways to engage consumers. By focusing on these activities, researchers can identify best practices and innovations that drive business growth and customer satisfaction. The evolving nature of mobile marketing activities reflects the dynamic interplay between technology and consumer behavior.

Predictors of mobile marketing success include factors like profitability, technological innovation, and behavioral intention. Decision-making processes and consumer perception also play a critical role in determining the effectiveness of mobile marketing campaigns. Experts such as Varnali and Toker (2010) emphasize that positive consumer attitudes and self-efficacy significantly influence their engagement with mobile marketing platforms. Public relations and co-production are additional predictors that highlight the importance of collaboration and communication in building brand trust. Technological advancements, such as AI and machine learning, can further enhance predictive accuracy by analyzing vast amounts of consumer data. Future research could explore the role of emotional intelligence and sentiment analysis in predicting consumer responses to mobile marketing. Additionally, studies on cost estimation and

return on investment (ROI) could provide valuable insights for marketers seeking to optimize their budgets. Understanding these predictors will enable marketers to design more effective strategies that align with consumer expectations and business objectives. By identifying the key drivers of mobile marketing success, researchers can contribute to the development of robust and scalable marketing frameworks.

Research design plays a crucial role in advancing mobile marketing studies, with methodologies ranging from experimental research to mixed methods. Experimental research is particularly valuable for testing hypotheses and evaluating the impact of specific interventions, such as mobile app features or advertising formats. Case studies and action research provide in-depth insights into real-world applications and challenges in mobile marketing. Experts like Creswell and Creswell (2018) advocate for mixed-method approaches, which combine quantitative and qualitative data to provide a comprehensive understanding of research questions. Systematic literature reviews and pilot studies are also instrumental in identifying gaps and setting the agenda for future research. Future studies could adopt cross-cultural and comparative research designs to examine the global applicability of mobile marketing strategies. Advances in data analytics and visualization tools offer new opportunities for conducting sophisticated analyses and presenting findings. Additionally, participatory research involving consumers and practitioners could provide practical insights and enhance the relevance of academic studies. By employing diverse and innovative research designs, scholars can address complex questions and contribute to the theoretical and practical development of mobile marketing. The evolution of research design reflects the growing complexity and interdisciplinary nature of this field.

Analytical methods in mobile marketing studies encompass a variety of techniques, such as structural equation modeling, factor analysis, and regression analysis. Confirmatory factor analysis is frequently used to validate theoretical constructs and ensure the reliability of measurement scales. Content analysis and meta-analysis are valuable for synthesizing findings and identifying trends across multiple studies. Experts like Hair Jr. et al. (2019) emphasize the importance of robust analytical frameworks in generating reliable and actionable insights. Latent class analysis and statistical modeling enable researchers to segment consumers and predict their behavior, enhancing the precision of marketing strategies. Future research could explore the application of machine learning algorithms and predictive analytics in mobile marketing studies. Advanced techniques, such as natural language processing and sentiment analysis, could provide deeper insights into consumer preferences and brand perception. Integrating multiple analytical methods could also improve the rigor and comprehensiveness of research findings. By adopting innovative analytical approaches, researchers can uncover new patterns and relationships that drive the success of mobile marketing initiatives. The ongoing development of analytical tools reflects the dynamic and data-driven nature of this field.

Implications for Future Economic Growth

The theoretical implications of this scoping review highlight the transformative potential of mobile marketing in driving future economic growth. By examining key themes such as technology, predictors, and research designs, this review establishes a foundation for understanding the dynamic interplay between mobile marketing and consumer behavior. Theories related to technological innovation, such as diffusion of innovation theory and behavioral intention models, provide a framework for predicting the adoption of mobile marketing tools. These insights allow researchers to explore the role of emerging technologies, like AI and IoT, in reshaping market ecosystems. Furthermore, the inclusion of predictors such

as profitability, decision-making, and public relations underscores the importance of interdisciplinary approaches in mobile marketing research. Economically, these theoretical advancements can contribute to the optimization of resource allocation and strategic planning in businesses. Additionally, cross-cultural studies and comparative analyses offer theoretical insights into the globalization of mobile marketing practices. By integrating social, technological, and behavioral theories, researchers can better address challenges related to market segmentation, consumer trust, and ethical considerations. These theoretical contributions are crucial for shaping policies that encourage sustainable economic development. Ultimately, the theoretical implications of mobile marketing studies provide a robust intellectual framework to guide future research and policy-making for economic growth.

The practical implications of this scoping review emphasize actionable strategies for leveraging mobile marketing to drive economic growth. Mobile marketing activities such as m-commerce, electronic payments, and online marketplaces are pivotal in creating new revenue streams for businesses and fostering financial inclusion. For instance, the integration of QR codes and augmented reality into marketing campaigns can enhance customer engagement and drive sales. By adopting cutting-edge technologies like cloud computing and AI, businesses can optimize their operations and achieve cost efficiency, thereby contributing to economic resilience. Countries and institutions investing in mobile marketing research and infrastructure can enhance their global competitiveness and attract foreign investments. Moreover, small and medium-sized enterprises (SMEs) can benefit from mobile marketing by reaching wider audiences and scaling their operations more effectively. Practical research on consumer behavior, including sentiment analysis and predictive analytics, can inform data-driven marketing strategies that maximize ROI. Policies promoting digital literacy and mobile access, especially in developing regions, can further stimulate economic activity and reduce inequality. Collaboration between academic institutions, governments, and businesses can ensure that mobile marketing practices align with sustainable economic goals. Ultimately, the practical implications of mobile marketing studies underscore its potential to revolutionize industries, empower consumers, and catalyze economic growth worldwide.

Limitations and Suggestions

This scoping review of mobile marketing studies from 2005 to 2024, while comprehensive, has several notable limitations. One limitation lies in the reliance on bibliometric data, which may not fully capture qualitative insights or context-specific nuances in the field. The review predominantly focused on publications and citations, potentially overlooking emerging work published in non-indexed or regional journals. Furthermore, the methodology may have introduced biases by prioritizing studies in English, thereby neglecting valuable contributions in other languages. The temporal scope, while extensive, may have missed significant developments or innovations emerging in 2024 and beyond. Another limitation is the lack of focus on the intersectionality of themes, such as how predictors like behavioral intention intersect with technological advancements like AI. The geographical emphasis on certain countries may also obscure the contributions of less-dominant regions in mobile marketing research. Additionally, the categorization of themes and activities might oversimplify complex dynamics within the mobile marketing ecosystem. The review's quantitative emphasis on publication and citation counts may not adequately reflect the practical impact or transformative potential of specific studies. Moreover, the absence of stakeholder perspectives, such as those of marketers and consumers, limits the real-world applicability of the findings. These limitations highlight the need for a more inclusive and multi-dimensional approach to scoping reviews in this domain.

Future scoping reviews on mobile marketing studies should address the limitations identified in this review to enhance comprehensiveness and utility. First, incorporating qualitative methodologies alongside bibliometric analysis can provide deeper insights into the contextual relevance and application of mobile marketing research. Expanding the linguistic scope to include studies in non-English languages will help capture a broader range of global perspectives. Researchers should also consider integrating newer bibliometric tools that allow for dynamic and real-time data analysis to include the latest publications and trends. Emphasizing interdisciplinary approaches, such as linking mobile marketing with psychology, sociology, and cultural studies, can reveal richer insights. Future reviews should delve into emerging technologies, like blockchain and 5G, which may not have been fully explored in this review. Including comparative analyses of regions that are underrepresented, such as Africa and South America, can offer a more equitable global perspective. Engaging with stakeholders, such as marketing professionals, policymakers, and consumers, can make the findings more actionable and relevant. Future bibliometric reviews should also evaluate the societal and ethical implications of mobile marketing practices. Employing visualization techniques, such as dynamic network analyses, can improve the interpretation of social interactions and collaborations among authors, institutions, and countries. Ultimately, future scoping reviews must adopt a more holistic and inclusive framework to ensure the field of mobile marketing research continues to evolve and address emerging challenges effectively.

Conclusion

This scoping review has provided a comprehensive analysis of mobile marketing studies conducted over the last two decades, highlighting key themes, influential contributors, and emerging trends. The findings underscore the pivotal role of technology in shaping mobile marketing, with advancements like smartphones, augmented reality, and artificial intelligence driving innovation. Countries such as the United States, the United Kingdom, China, Germany, and South Korea have emerged as dominant contributors to mobile marketing research, reflecting their strong technological and economic ecosystems. The review also revealed that activities such as m-commerce, m-payment, and electronic marketplaces have become central to the evolution of mobile marketing practices. Predictors like behavioral intention, technological innovation, and profitability were identified as significant factors influencing mobile marketing adoption and success.

The review's analysis of research design highlighted a growing preference for experimental research, mixed-methods approaches, and case studies, emphasizing the need for methodological diversity in this field. Bibliometric analysis further revealed intricate social interactions among authors, institutions, and countries, with collaborative networks enhancing knowledge dissemination and innovation. Notably, institutions in technologically advanced countries played a critical role in producing high-impact research, while leading journals facilitated the dissemination of findings to global audiences. Despite the evident progress, the uneven distribution of research efforts across regions and the limited focus on underrepresented areas, such as Africa and South America, remain key challenges.

Practical implications of this review suggest that mobile marketing research is crucial for guiding economic growth by supporting businesses, enhancing consumer engagement, and fostering technological adoption. The review also identified gaps in thematic exploration, such as the ethical implications of mobile marketing and the integration of newer technologies like blockchain and IoT. These gaps present opportunities for future researchers to expand the field

and address pressing issues in a rapidly digitizing world. The limitations of the review, including its emphasis on English-language publications and citation metrics, highlight the need for more inclusive and multidimensional analyses.

In conclusion, this review provides a valuable foundation for understanding the trajectory of mobile marketing research and its implications for academia, industry, and policy. By emphasizing interdisciplinary approaches, global inclusivity, and stakeholder engagement, future studies can build on these findings to further advance the field. The insights gained from this review are not only a testament to the transformative potential of mobile marketing but also a call to action for researchers to address emerging challenges and opportunities. Mobile marketing, as a field of study, holds immense promise for driving innovation, economic growth, and societal transformation in the digital age.

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Author Contribution

All of authors contribute to this study. Particularly, Sudarman and Muhammad Yaumal Akbar search, select, and compile the metadata regarding mobile marketing from the Scopus database. Riska Amelia conducts performance analysis using PoP software while Fariski Maulana Rafliansyah carries out some analyses, including citation, co-authorship, and co-occurrence using VOSviewer. Alwinda Manao writes the complete manuscript as a report. Henny Hendrayati reviews and edits the manuscript while Ratih Hurriyati supervises this scoping review using bibliometric analysis.

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