



From digital channels to digital marketing capabilities: A bibliometric science mapping of research trends, themes, and managerial implications (2018–2025)

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Abstract Digital marketing research has expanded beyond digital channels into data, platforms, analytics, customer experience design, and organizational capabilities, but it remains fragmented across technology-specific, consumer-oriented, and organizational streams. This study provides an updated bibliometric map of digital marketing research in business and management from 2018 to 2025 to clarify publication patterns, thematic clusters, thematic evolution, research gaps, and conceptual, practice-oriented propositions. A bibliometric science mapping design was applied to 2,316 English-language journal articles indexed in Scopus. The PRISMA 2020 flow logic was used only to document metadata identification and screening, not as a systematic review protocol, qualitative evidence synthesis, meta-analysis, or full-text content analysis. The search string focused on “digital marketing” and close lexical equivalents; therefore, adjacent streams such as social media marketing, content marketing, influencer marketing, and omnichannel marketing were captured only when indexed within the retrieved corpus. The dataset was analyzed using bibliometrix/biblioshiny and VOSviewer, supported by keyword harmonization, threshold sensitivity checks, and three-period thematic analysis. The findings show sustained publication growth and uneven international collaboration. Keyword co-occurrence analysis identified eight thematic clusters covering strategy and capabilities, social media marketing, eWOM and trust, AI-enabled applications, consumer and brand outcomes, e-commerce, analytics, influencer marketing, and immersive technologies. The thematic evolution analysis indicates that the published literature increasingly emphasizes capability-based, trust-sensitive, and technology-enabled perspectives, rather than providing direct evidence of managerial effectiveness. Recent themes connect digital marketing with organizational capability development, trust, eWOM, online reviews, AI, chatbots, virtual influencers, omnichannel integration, and business performance. The study identifies evidence-informed research gaps and conceptual, practice-oriented propositions related to capability development, trust governance, AI readiness, influencer and immersive marketing governance, and analytics-based channel integration. By integrating performance analysis, science mapping, and thematic interpretation, the study contributes an updated view of digital marketing research as a capability-oriented field rather than a channel-centered literature.

Keywords: knowledge structures, co-occurrence analysis, thematic evolution, performance analysis, artificial intelligence in marketing, Scopus database

1. Introduction

Digital marketing has become a strategic domain in business and management research, but its meaning has expanded beyond social media, online advertising, and search marketing. It now includes data, platforms, analytics, customer experience design, and organizational processes that support value creation. Prior studies indicate that digital marketing activities are associated with consumer engagement, perceived value, online reviews, brand-related outcomes, and firm performance, whereas digital transformation requires coordinated action across technology, strategy, processes, and customer-centric activities (Chen & Lin, 2019; De Pelsmacker et al., 2018; Melović et al., 2020; Peter et al., 2020). This broader view positions digital marketing not only as a set of communication channels but also as an evolving organizational capability.

This capability-oriented reading can be grounded in three complementary theoretical traditions. From a resource-based view, resources and capabilities become strategically relevant when they are valuable, rare, difficult to imitate, and embedded in the firm’s internal resource configuration (Barney, 1991). Marketing capability theory further suggests that value creation depends less on isolated assets than on bundles of skills, collective learning, and organizational processes that enable market



sensing, customer linking, and coordinated delivery of customer value (Day, 1994). Dynamic capabilities theory adds that, under rapid technological change, firms need the ability to integrate, build, and reconfigure internal and external competences (Teece et al., 1997). Accordingly, a digital marketing capability differs from a digital tool or channel: it refers to the organizational ability to combine data, technologies, analytical skills, customer knowledge, routines, and cross-functional coordination to support market-facing value creation.

Research has developed across multiple streams, including social media marketing, influencer marketing, electronic word of mouth (eWOM), online reviews, live streaming, e-commerce, and platform-based interaction (Arora et al., 2019; Chen & Lin, 2019; De Pelsmacker et al., 2018; Lin et al., 2021; Rangaswamy et al., 2020; Zhang et al., 2019). These streams show that digital marketing research has increasingly engaged with consumer behavior, platform governance, relational mechanisms, and data-enabled market interactions. Recent studies have also extended the field toward artificial intelligence (AI), chatbots, augmented reality, virtual reality, metaverse marketing, and digital sensory experiences (Chung et al., 2020; Chylinski et al., 2020; Dwivedi et al., 2023; Ma & Sun, 2020; Petit et al., 2019). This expansion indicates that digital marketing is no longer confined to online communication channels but is increasingly connected with technology-enabled value creation, customer experience management, and organizational transformation.

Despite this growth, digital marketing research remains fragmented across technology-specific, consumer-oriented, and organizational streams. Prior agenda-setting and domain-specific reviews have provided valuable insights into social media marketing, digital and social media research agendas, AI and machine learning in marketing, data science applications, AI-based customer relationship management, sensory marketing, and metaverse marketing (Appel et al., 2020; Dwivedi et al., 2023; Dwivedi et al., 2021; Ma & Sun, 2020; Saura, 2021; Saura et al., 2021). At the firm level, digital marketing capability research further suggests that value creation depends on integrating digital resources with processes, skills, and strategy rather than on technology adoption alone (Herhausen et al., 2020; Homburg & Wielgos, 2022). However, these insights remain dispersed, and few studies have integrated structural patterns, thematic evolution, and cautious managerial interpretation to explain how the published literature has increasingly emphasized capability-oriented, trust-sensitive, and technology-enabled perspectives. Unlike prior domain-specific reviews that focus on particular technologies, methods, or consumer-facing phenomena, this study integrates corpus-level structure, thematic evolution, and practice-oriented interpretation within a 2018–2025 bibliometric science map. It therefore complements prior reviews by showing how recent digital marketing research can be interpreted as a capability-oriented field rather than only as channel-centered literature.

Therefore, the objective of this study is to provide an updated bibliometric science map of digital marketing research in business and management and to clarify how the published literature has evolved from channel-centered studies toward capability-oriented, trust-sensitive, and technology-enabled perspectives. Given the descriptive and mapping-oriented nature of the study, the analysis is guided by research questions rather than hypotheses. Managerial implications are therefore treated as conceptual and practice-oriented propositions derived from bibliometric patterns and the related substantive literature, not as direct empirical evidence of managerial effectiveness. Accordingly, the study addresses three research questions (RQs):

RQ1. What publication, source, authorship, and international collaboration patterns characterize digital marketing research in business and management from 2018 to 2025?

RQ2. What thematic clusters and evolutionary patterns reveal changes in academic emphasis from channel- and communication-oriented studies toward capability-based, trust-sensitive, and technology-enabled research?

RQ3. What research gaps and conceptual propositions for practice can be derived from bibliometric patterns, thematic evolution, and the related substantive literature?

2. Materials and Methods

2.1. Research design and analytical approach

This study adopts a bibliometric science mapping design to examine the structural patterns, thematic evolution, and practice-oriented propositions of digital marketing research in business and management. Bibliometric analysis is suitable for this purpose because it summarizes large research domains through publication metadata, collaboration patterns, keyword structures, and thematic trajectories. Following bibliometric guidelines, the study combines performance analysis and science mapping to describe publication patterns, collaboration structures, keyword relationships, and thematic evolution (Donthu et al., 2021). This approach is appropriate for a field that spans digital and social media marketing, AI, platform-based commerce, and data-driven marketing (Dwivedi et al., 2021; Ma & Sun, 2020). The analysis therefore focuses on mapping the intellectual and thematic structure of the field rather than evaluating the effectiveness of individual digital marketing practices.

2.2. Data source and record identification

Scopus was selected because it provides structured bibliographic metadata suitable for bibliometric analysis in business, management, economics, and finance. The identification and screening process used the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 flow logic only to transparently report record identification and

exclusion; it was not used as a protocol for qualitative evidence synthesis or meta-analysis (Page et al., 2021). No full-text qualitative coding, evidence synthesis, effect-size aggregation, or full-text content analysis was conducted; therefore, PRISMA was used only as a transparent record-level reporting structure. Because the unit of analysis was bibliographic metadata, eligibility was assessed at the record level rather than through full-text synthesis. The search was conducted on January 27, 2026, and 2,442 records were retrieved. The search was conducted in the Scopus TITLE-ABS-KEY field using the following query: TITLE-ABS-KEY (“digital marketing” OR “marketing online” OR “online marketing” OR “internet marketing” OR “e-marketing” OR “emarketing”). The search string was intentionally centered on “digital marketing” and its close lexical equivalents to keep the corpus focused on research explicitly framed as digital marketing. Terms such as “social media marketing,” “content marketing,” “influencer marketing,” and “omnichannel marketing” were not used as primary search terms because they represent adjacent or nested streams that could substantially broaden the corpus beyond the focal digital marketing literature. These streams were instead captured as subthemes when they appeared in titles, abstracts, or author keywords within the retrieved corpus. This decision supports conceptual focus but also introduces a search-string sampling limitation, which is acknowledged in the Final considerations. The search was limited to English-language journal articles published from January 1, 2018, to December 31, 2025, within business, management and accounting, and economics, econometrics and finance. The exported Scopus metadata included the bibliographic fields needed for performance analysis and science mapping, such as authors, article titles, publication years, source titles, abstracts, author keywords, affiliations, country information, citation counts, cited references, document identifiers, and DOIs.

Records were screened using titles, abstracts, and bibliographic metadata against predefined inclusion and exclusion criteria. Screening was conducted at the record level and focused on bibliographic eligibility, metadata completeness, language, document type, subject area, publication period, and final publication status. Formal interrater reliability statistics, such as Cohen’s κ or percentage agreement, were not calculated because the procedure did not involve interpretive full-text coding. No formal pilot test was conducted because the screening process was based on bibliographic metadata rather than interpretive full-text assessment. However, the reviewers discussed the inclusion and exclusion criteria before screening, cross-checked uncertain records, and resolved disagreements through consensus. No duplicate records were detected after standardization on the basis of DOI and bibliographic information. Articles in press ($n = 126$) were excluded to ensure finalized metadata, leaving 2,316 journal articles for analysis. This exclusion may have reduced the visibility of very recent research at the frontier of the field, particularly for 2025. However, it was necessary to ensure stable bibliographic metadata, finalized source information, and reliable citation and indexing fields for bibliometric analysis. The record-level identification and screening flow is shown in Figure 1. Full-text retrieval was not needed because the study relied on bibliographic and citation metadata rather than qualitative evidence extracted from full-text articles.

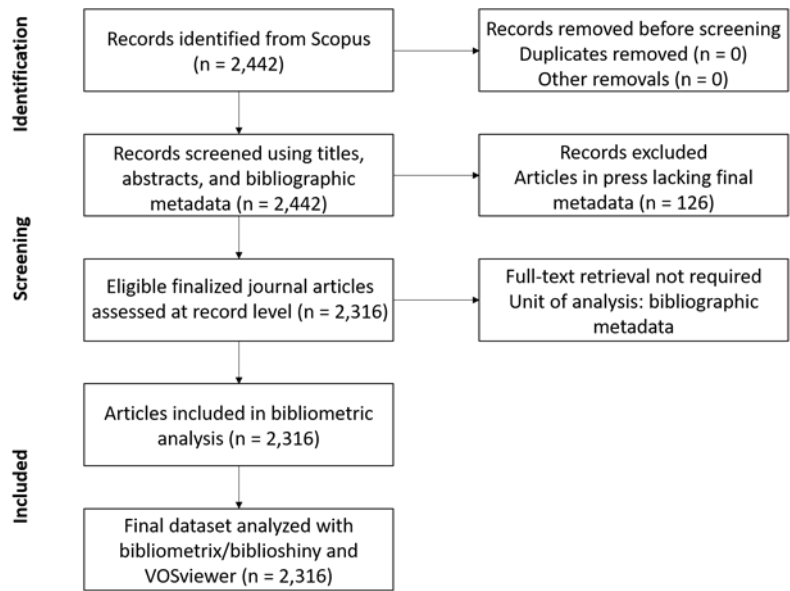


Figure 1 Record-level identification and screening flow.

Source: Authors’ elaboration based on Scopus record identification and screening (2026); flow diagram prepared in Microsoft Word. *Note:* The flow reports record-level identification and screening for bibliometric analysis; it is not a qualitative evidence synthesis or meta-analysis flow.

2.3. Bibliometric tools and analytical procedures

The analysis used bibliometrix/biblioshiny for descriptive statistics and thematic evolution (Aria & Cuccurullo, 2017) and VOSviewer version 1.6.20 for keyword co-occurrence and country collaboration mapping (van Eck & Waltman, 2010). The performance analysis described annual production, leading sources, productive authors, and country-level contributions.



Science mapping was used to examine collaboration structures, thematic clusters, and temporal evolution. These tools were used for complementary purposes: bibliometrix/biblioshiny supported descriptive and temporal analyses, whereas VOSviewer supported visual mapping of coauthorship and keyword co-occurrence networks. For keyword co-occurrence mapping in VOSviewer, author keywords were used as the unit of analysis and the full-counting method was applied. Co-occurrence links were normalized using the association strength method. Clustering was performed using the default VOSviewer clustering settings, with the resolution parameter set at 1.00 and the minimum cluster size set at 1. The minimum occurrence threshold for author keywords was set at 10 for the main map.

2.4. Keyword harmonization, threshold selection, and time segmentation

Author keywords were cleaned and standardized to reduce semantic fragmentation; the transformations are documented in Appendix A1. Keyword harmonization was completed before network construction to reduce spelling, pluralization, and terminological inconsistencies across equivalent terms. Keyword co-occurrence analysis used a minimum occurrence threshold of 10 for the main map. Sensitivity checks at thresholds of 5, 15, and 20 assessed whether the core thematic structure remained stable across different levels of granularity; these results are reported in Appendix A2. To capture temporal dynamics, the study period was divided into three phases: 2018–2019, which represented a pre-pandemic channel- and communication-oriented foundation; 2020–2022, which reflected pandemic-accelerated digital adoption and platform engagement; and 2023–2025, which captured AI-enabled, capability-oriented, and trust-sensitive expansion (Dwivedi et al., 2023; Herhausen et al., 2020; Homburg & Wielgos, 2022; Kim, 2020). This segmentation offers a more balanced temporal structure than does treating 2018 as a separate period while also reflecting major contextual and thematic shifts in the corpus. The three-period structure was therefore used to support thematic interpretation rather than to imply strict historical boundaries. Because the three periods are not identical in length, thematic evolution was interpreted as a qualitative indication of thematic visibility and conceptual emphasis rather than as a direct comparison of raw keyword volumes across periods.

2.5. Alignment with research questions

The analytical procedure was aligned with the three research questions. RQ1 was addressed through performance and collaboration analyses, including annual scientific production, leading sources, productive authors, country-level contributions, and international coauthorship patterns. RQ2 was addressed through keyword co-occurrence analysis and thematic evolution analysis. Keyword co-occurrence was used to identify thematic clusters, whereas thematic evolution across the three periods was used to trace changes in the field's conceptual emphasis over time. The cluster labels were interpreted from representative keywords and co-occurrence structures rather than being treated as direct software-generated categories. RQ3 was addressed through an integrative synthesis of the bibliometric findings and the cited substantive literature. Specifically, research gaps and conceptual, practice-oriented propositions were derived from recurrent themes, temporal shifts, and the interpretive relevance of prior studies, not from causal tests of managerial effectiveness. This distinction was used to keep the inferential scope of the study consistent with the descriptive and mapping logic of bibliometric analysis.

2.6. Data availability

The bibliographic metadata used in this study were retrieved from Scopus on January 27, 2026, through a paid institutional subscription. Owing to Scopus licensing restrictions, the full exported dataset cannot be publicly redistributed. However, the search strategy, record-level screening flow, keyword harmonization procedure, threshold sensitivity analysis, temporal segmentation logic, and aggregated results are reported in the manuscript, figures, tables, and appendices to support transparency and reproducibility.

3. Results

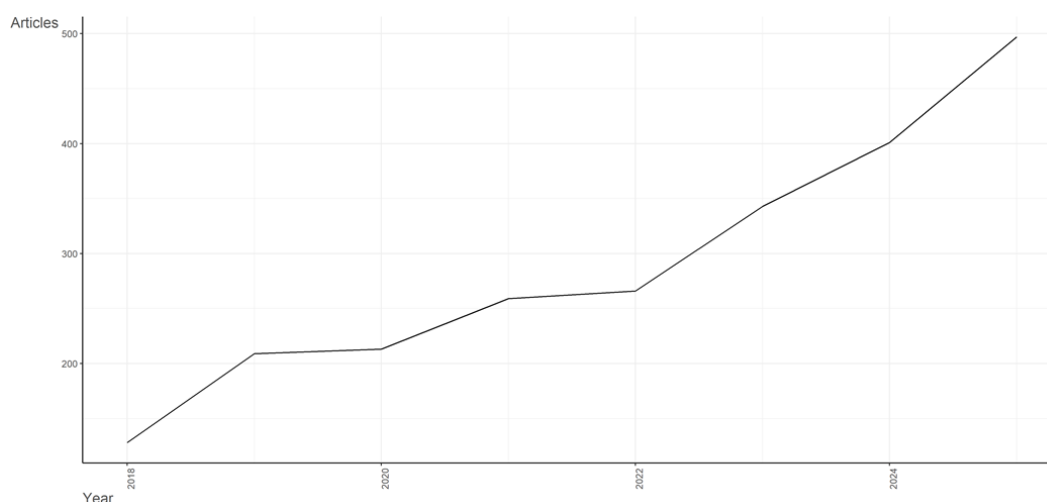
3.1. Dataset overview and descriptive characteristics

The final dataset comprises 2,316 journal articles published between 2018 and 2025 across 637 sources. As shown in Table 1, the corpus contains 6,367 authors and 6,461 author keywords. The average citation rate is 20.27 citations per document, indicating a mix of recent and already visible contributions. Collaboration is also evident: 292 documents were single-authored, the average number of coauthors per document was 3.11, and international coauthorship accounted for 24.7% of publications. These figures provide a descriptive baseline for interpreting the field's publication growth, authorship structure, and collaboration patterns.

The annual scientific production is shown in Figure 2. The publication trajectory is interpreted alongside the study's temporal segmentation: 2018–2019 as a pre-pandemic channel- and communication-oriented foundation, 2020–2022 as a period of pandemic-accelerated digital adoption, and 2023–2025 as a phase of AI-enabled, capability-oriented, and trust-sensitive expansion (Appel et al., 2020; Dwivedi et al., 2021; Ma & Sun, 2020).

Table 1 Descriptive statistics of the dataset.

Description	Results
Timespan	2018:2025
Documents	2,316
Sources	637
Authors	6,367
Author keywords	6,461
Average citations per document	20.27
Single-authored documents	292
Coauthors per document	3.11
International coauthorships	24.7%

**Figure 2** Annual scientific production on digital marketing.

Source: Authors' elaboration based on Scopus data generated using bibliometrix/biblioshiny (2026).

3.2. Leading sources, authors, and countries

Table 2 shows that digital marketing research is published in both specialized outlets and broader business, management, marketing, and retailing journals. Cogent Business & Management is the most productive source, whereas the Journal of Business Research and the Journal of Retailing and Consumer Services show high citation counts relative to their publication volume. At the author level, productivity and citation influence differ: Sakas, Damianos P. records the greatest number of documents, whereas Dwivedi, Yogesh K. has the highest citation count, which is consistent with his agenda-setting work on digital and social media marketing and metaverse marketing (Dwivedi et al., 2023; Dwivedi et al., 2021). Saura, Jose Ramon also appears prominently, reflecting the visibility of data science and AI-based customer relationship management in digital marketing research (Saura, 2021; Saura et al., 2021). Overall, the data in Table 2 suggest that the field is shaped by both high-volume publication outlets and highly cited contributors working on digital, social, AI-enabled, and data-driven marketing.

Table 3 reports country-level contributions. The United States, India, and China are the three most productive countries, followed by Indonesia, the United Kingdom, Spain, Malaysia, Korea, Ukraine, and Jordan. Collaboration intensity differs across countries: high-output countries such as the United States and India show modest multiple-country publication shares, whereas Malaysia, the United Kingdom, Korea, and Jordan show higher levels of international collaboration. Therefore, Figure 3 suggests a multihub but unevenly integrated global research domain, which is consistent with the platform-based and digitally mediated nature of contemporary markets (Rangaswamy et al., 2020). Taken together, these publication, source, author, and country-level patterns answer RQ1 by showing that digital marketing research expanded rapidly but remained unevenly distributed across outlets, authors, and international collaboration structures.

3.3. Major thematic clusters based on keyword co-occurrence

Keyword co-occurrence analysis with a minimum occurrence threshold of 10 identifies eight thematic clusters, summarized in Table 4 and visualized in Figure 4. A threshold of 10 was selected as the main solution because it offers a balance between thematic richness and interpretability, while sensitivity checks at alternative thresholds are reported in Appendix A2.

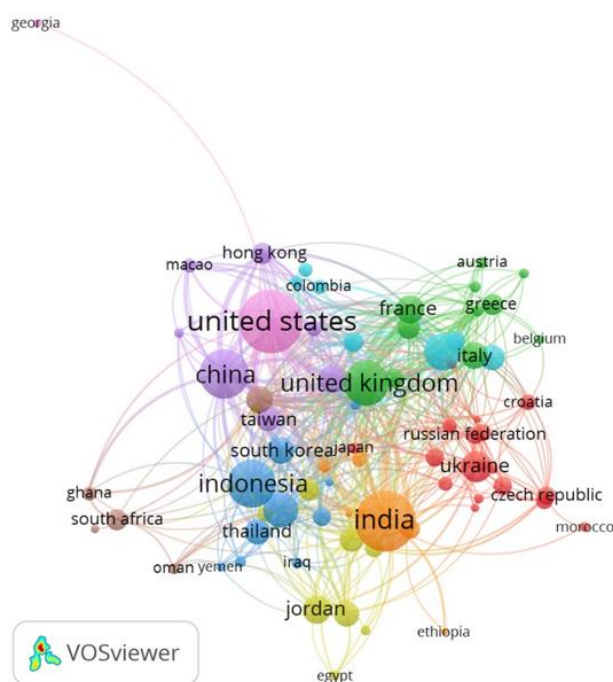
Table 2 Leading sources and authors in digital marketing research.

Top Journals			Top Authors		
Journal	Documents	Total citations	Author	Documents	Total citations
Cogent Business & Management	73	586	Sakas, Damianos P.	9	168
Journal of Digital and Social Media Marketing	58	132	Saura, Jose Ramon	8	822
Emerald Emerging Markets Case Studies	53	92	Giannakopoulos, Nikolaos Th	7	106
Journal of Theoretical and Applied Electronic Commerce Research	46	563	Dwivedi, Yogesh K.	6	2,988
Journal of Business Research	41	2,561	Karyy, Oleh I.	6	91
Innovative Marketing	33	170	Kumar, Vikas	6	181
Journal of Research in Interactive Marketing	31	1,595	Ukaj, Fatos	6	37
International Journal of Recent Technology and Engineering	30	82	Abell, Annika	5	302
Applied Marketing Analytics	29	89	Al-Ababneh, Hassan Ali	5	40
Journal of Retailing and Consumer Services	27	2,007	Al-Gasawneh, Jassim Ahmad	5	33

Table 3 Lead countries and collaboration patterns.

Country	Articles	Articles %	SCP	MCP	MCP %
USA	195	8.4	160	35	17.9
India	181	7.8	160	21	11.6
China	163	7.0	120	43	26.4
Indonesia	110	4.7	94	16	14.5
United Kingdom	84	3.6	54	30	35.7
Spain	71	3.1	53	18	25.4
Malaysia	56	2.4	34	22	39.3
Korea	48	2.1	31	17	35.4
Ukraine	43	1.9	35	8	18.6
Jordan	40	1.7	28	12	30.0

Note: SCP = single-country publications; MCP = multiple-country publications.

**Figure 3** Coauthorship network by country.

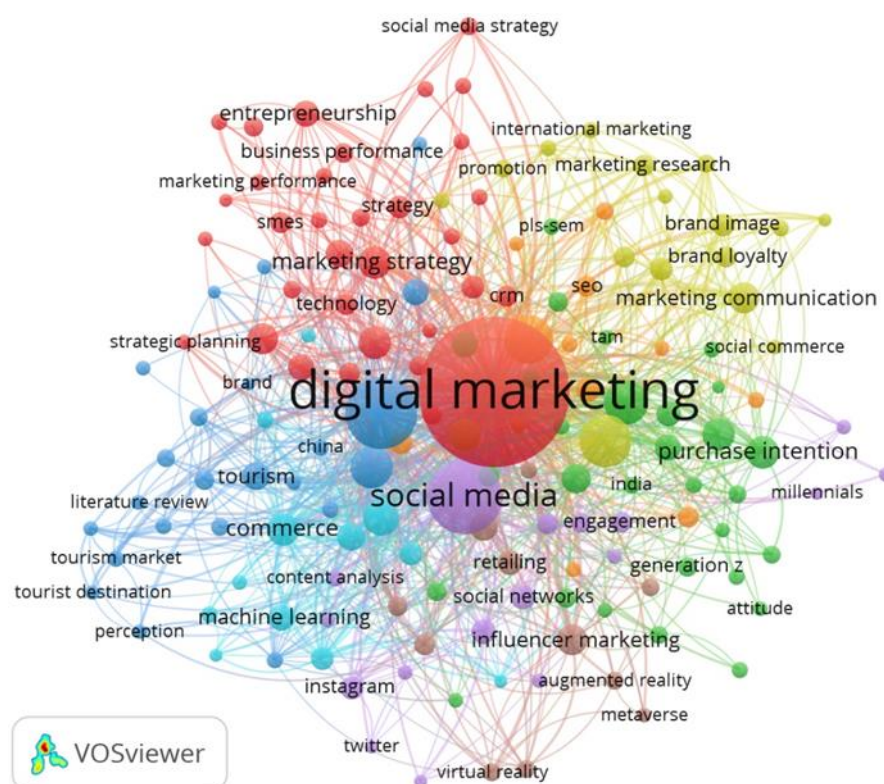
Source: Authors' elaboration based on Scopus data generated using VOSviewer version 1.6.20 (2026).

Table 4 Major thematic clusters in digital marketing research based on keyword co-occurrence analysis.

Cluster	Thematic label	Representative keywords	Cluster size based on keyword occurrences	Interpretive axis
1	Digital marketing strategy, transformation, and organizational capabilities	digital marketing; COVID-19; marketing strategy; digital transformation; digitalization; entrepreneurship; innovation; customer experience; customer relationship management; small and medium-sized enterprises; digital marketing capability	1,826	Capability and organizational transformation
2	Social media marketing, eWOM, trust, and behavioral intentions	social media marketing; purchase intention; eWOM; customer engagement; online shopping; trust; personalization; privacy; Generation Z; online reviews; perceived value	685	Consumer response and relational mechanisms
3	AI-enabled marketing, technology adoption, and sustainability-oriented applications	marketing; AI; tourism; sustainability; digitization; generative AI; technology adoption; sentiment analysis; sustainable development	681	AI and technology-enabled applications
4	Marketing communication, consumer behavior, and brand-related outcomes	consumer behavior; advertising; marketing communication; marketing management; brand image; customer satisfaction; brand loyalty; relationship marketing; social commerce	484	Consumer response and brand outcomes
5	Social media platforms, digital communication, and user-generated content	social media; social networks; Facebook; Instagram; communication; engagement; mobile marketing; content analysis; chatbot; user-generated content	545	Channel/platform and digital communication
6	Electronic commerce, sales, and data-driven online marketing	electronic commerce; commerce; sales; machine learning; online marketing; data mining; websites; digital economy; forecasting	319	E-commerce and data-driven marketing
7	E-commerce, content marketing, search marketing, and web analytics	e-commerce; content marketing; big data; search engine optimization; online advertising; search engine marketing; email marketing; retail; blockchain; web analytics	321	Channel/platform and analytics
8	Influencer marketing, immersive technologies, and retailing behavior	influencer marketing; retailing; consumption behavior; decision making; virtual reality; augmented reality; virtual influencer; consumer engagement; metaverse	258	Immersive and influencer-enabled consumer experience

Note: Cluster labels are interpretive labels derived from representative keywords and the overall co-occurrence structure; they should not be treated as direct software-generated categories. Cluster size refers to keyword occurrences within each cluster, not to the number of articles or the number of unique keywords.

The difference in cluster size should be interpreted cautiously. Cluster 1 is the largest cluster because it contains broad, mature, and central terms such as digital marketing, marketing strategy, digital transformation, digitalization, customer experience, customer relationship management, and digital marketing capability. These terms function as integrative vocabulary across several streams and are consistent with capability-oriented interpretations of digital marketing (Barney, 1991; Day, 1994; Herhausen et al., 2020; Homburg & Wielgos, 2022; Teece et al., 1997). By contrast, Cluster 8 is smaller because influencer marketing, virtual influencers, metaverse, augmented reality, and virtual reality represent more specialized and more recent streams. This difference therefore reflects different levels of thematic maturity and vocabulary consolidation rather than differences in managerial importance. A higher clustering resolution could subdivide Cluster 1 into more specialized subthemes; however, the current solution was retained because threshold sensitivity checks indicated a stable core structure and because the eight-cluster solution provided an interpretable balance between thematic granularity and readability.



Source: Authors' elaboration based on Scopus data generated using VOSviewer version 1.6.20 (2026).

The clusters can be interpreted along four broader axes. First, Cluster 1 indicates that digital marketing research increasingly treats digital marketing as an organizational and strategic capability, not merely as online communication. This interpretation is consistent with work on digital marketing capabilities and their relevance for firm-level outcomes as well as broader capability-based views of firm resources and adaptation (Barney, 1991; Day, 1994; Herhausen et al., 2020; Homburg & Wielgos, 2022; Teece et al., 1997). Second, Clusters 2 and 4 show that consumer response remains central, but the vocabulary has shifted from general engagement and purchase intention toward trust, privacy, eWOM, online reviews, and value-based interaction (Chen & Lin, 2019; De Pelsmacker et al., 2018; Jun & Yi, 2020; Lin et al., 2021; Zhang et al., 2019). Third, Clusters 5, 6, and 7 indicate that channel-centered research continues but is increasingly linked with data-driven marketing, platform-based commerce, search marketing, and web analytics (Elia et al., 2021; Rangaswamy et al., 2020; Saura, 2021). Fourth, Clusters 3 and 8 capture the technological frontier of the field, including AI-enabled analysis, automation, immersive experience, virtual interaction, and influencer-mediated customer experience. These patterns indicate increasing thematic visibility rather than causal evidence of managerial effectiveness (Chung et al., 2020; Dwivedi et al., 2023; Ma & Sun, 2020; Park & Yoo, 2020; Petit et al., 2019).

Taken together, the four axes are not separate research islands. They form a sequential and overlapping logic in which the published literature increasingly connects channel use with capability formation, consumer response with trust-sensitive relationships, platform activity with analytics-enabled commerce, and technology adoption with AI-enabled and immersive experience design. This integrated reading provides the thematic basis for the article's central argument while remaining consistent with the descriptive scope of bibliometric analysis.

3.4. Thematic evolution across time periods

Thematic evolution across the three periods is summarized in Table 5 and visualized in Figure 5.

Table 5 shows a staged thematic transition. In 2018–2019, digital marketing research was organized mainly around channels, communication, retailing, brand loyalty, and early analytics, which is consistent with studies on social media ecosystems, online reviews, and social media marketing activities (Appel et al., 2020; Chen & Lin, 2019; De Pelsmacker et al., 2018). From 2020–2022, the published literature placed greater emphasis on e-commerce, online shopping, consumer behavior, data analytics, privacy, and AI, reflecting pandemic-accelerated digital adoption and the growing role of digitally mediated commerce (Elia et al., 2021; Kim, 2020; Lin et al., 2021; Saura, 2021; Saura et al., 2021). From 2023–2025, trust, eWOM, online reviews, digital marketing capability, business performance, chatbots, virtual influencers, blockchain, and digital literacy became more visible. Overall, the published literature increasingly emphasized capability-based, trust-sensitive, and

technology-enabled terms, rather than providing direct evidence that managerial practice itself migrated from channels to capabilities. This staged evolution provides the bibliometric basis for answering RQ2.

Table 5 Thematic evolution of digital marketing research across three periods.

Time period	Dominant themes	Emerging themes	Declining or less visible themes	Interpretation
2018–2019	Digital marketing; marketing; machine learning; retailing; brand loyalty; online marketing; online advertising; search marketing; tourism	Analytics; B2B marketing; word of mouth; content analysis; sentiment analysis; customer acquisition; e-satisfaction; small and medium-sized enterprises	—	Channel- and communication-oriented foundation, with early analytics-related signals.
2020–2022	Digital marketing; e-commerce; consumer behavior; purchase intention; online shopping; AI; marketing mix; social media engagement; data analytics; search engine marketing	Privacy; big data; small and medium-sized enterprises; entrepreneurial marketing; entrepreneurship; B2B marketing; ethics; personalization; marketing management	Some channel-specific themes became absorbed into broader e-commerce, platform, and consumer-behavior streams.	Pandemic-accelerated adoption and platform-mediated engagement.
2023–2025	Digital marketing; e-commerce; trust; eWOM; marketing strategy; digital marketing strategy; digital marketing capability; online reviews; brand; business performance	Chatbot; virtual influencer; blockchain; digital literacy; sentiment analysis; email marketing; content marketing; systematic literature review; competition	Generic communication and platform labels became less visible than capability-, trust-, performance-, and technology-oriented themes.	Increasing visibility of capability-oriented, trust-based, and technology-enabled terms in digital marketing research.

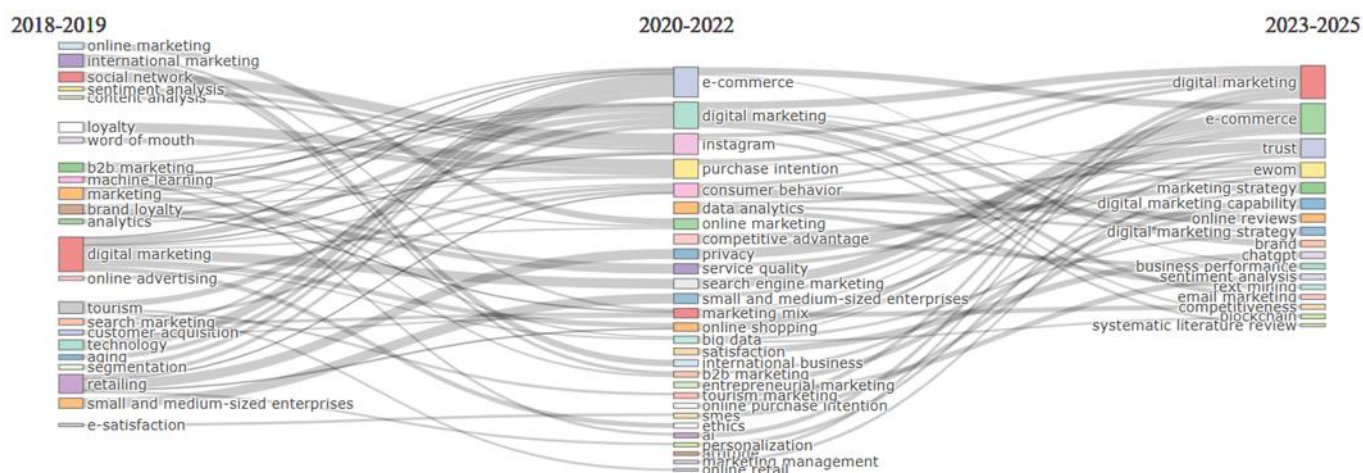


Figure 5 Thematic evolution of digital marketing research.

Source: Authors' elaboration based on Scopus data generated using bibliometrix/biblioshiny (2026).

4. Discussion and Practice-Oriented Propositions

Building on Tables 4 and 5, this section interprets bibliometric patterns as indicators of thematic visibility rather than causal evidence of managerial effectiveness. The results indicate that the published digital marketing literature increasingly links channel- and communication-oriented themes with capability-based, trust-sensitive, and technology-enabled perspectives. Earlier themes emphasized social media, online advertising, search marketing, retailing, and consumer response, whereas recent themes connect digital marketing with digital marketing capability, trust, eWOM, online reviews, AI, chatbots, virtual influencers, metaverse, and business performance. This trajectory is consistent with studies that view digital transformation as coordinated organizational action and digital marketing capability as a firm-level capability (Herhausen et al., 2020; Homburg & Wielgos, 2022; Peter et al., 2020). It also aligns with broader capability-based theories, which suggest that the strategic value of digital marketing depends on how digital resources are embedded in difficult-to-imitate resource configurations, market-sensing and customer-linking processes, and the capacity to integrate, build, and reconfigure competences under changing conditions (Barney, 1991; Day, 1994; Teece et al., 1997).

Table 6 should be read as an interpretive bridge between bibliometric patterns, the substantive literature, and practice-oriented propositions, not as a set of universal prescriptions. Its implications are conditional because applicability depends on data capabilities, organizational structure, firm size, strategic priorities, market context, platform dependence, and technological readiness. Bibliometric patterns indicate thematic salience; the substantive literature suggests why these themes may matter; managers may therefore consider capability, governance, trust, and readiness as areas for reflection rather than guaranteed performance levers.

Table 6 Research gaps and practice-oriented propositions derived from bibliometric patterns and literature synthesis.

Bibliometric pattern	Research gap	Future research agenda	Conditional proposition for practice
Digital marketing strategy, capability, and business performance	How firms develop digital marketing capabilities over time remains underexplored.	Use longitudinal, comparative, and firm-level designs to examine capability formation, coordination, and performance conditions.	Firms may approach digital marketing as an organizational capability that combines data, technologies, analytical skills, routines, and cross-functional coordination rather than as a set of isolated tools.
Trust, eWOM, and online reviews	Trust is often treated as static rather than as a process developed across digital touchpoints.	Study trust development, review credibility, and eWOM dynamics across platforms and customer journeys.	Firms may strengthen review, eWOM, and credibility governance through transparent response practices and consistent trust-building mechanisms.
AI, generative AI, and chatbots	Readiness, governance, employee acceptance, and human oversight remain insufficiently examined.	Examine data governance, AI readiness, employee acceptance, implementation barriers, and human-in-the-loop control.	AI adoption may require readiness assessment, data-quality routines, employee capability development, and human oversight before large-scale deployment.
Influencer marketing, virtual influencers, and metaverse	Authenticity, identity transparency, ethical risk, and control mechanisms remain underdeveloped.	Study governance, disclosure, brand safety, and performance metrics in influencer and immersive campaigns.	Firms may need clearer disclosure, authenticity control, identity transparency, and risk-monitoring mechanisms before scaling influencer or immersive campaigns.
E-commerce, web analytics, and omnichannel integration	Online-offline integration and analytics-based performance metrics remain limited.	Examine omnichannel coordination, analytics-based performance evaluation, and the alignment of platform, channel, and customer experience data.	Firms may align digital channels, customer data, platform analytics, and customer experience metrics according to their organizational capabilities and market context.

AI, chatbot, and generative AI adoption illustrate this conditional logic. These technologies may support personalization, automation, customer interaction, and data-driven decision-making, but their value depends on data quality, data governance, employee acceptance, technological readiness, and human oversight (Chatterjee & Kar, 2020; Homburg & Wielgos, 2022; Ma & Sun, 2020; Peter et al., 2020; Saura et al., 2021). For small and medium-sized enterprises, the central challenge is often the gradual development of affordable data routines, platform literacy, and employee skills. For large corporations, the challenge is more likely to involve cross-functional integration, compliance, algorithmic accountability, privacy management, and coordination across multiple platforms and business units. In both contexts, AI should be viewed not only as technology adoption but also as an organizational readiness and governance issue.

Trust, eWOM, online reviews, virtual influencers, and immersive environments further show why practice-oriented propositions must remain context-sensitive. In retail, hospitality, tourism, and e-commerce, firms may need to manage review volume, review valence, credibility, response practices, and platform-based interactions because online reviews and eWOM shape consumer perceptions and value judgments (Chen & Lin, 2019; De Pelsmacker et al., 2018; Jun & Yi, 2020; Lin et al., 2021; Zhang et al., 2019). Influencer, virtual influencer, and metaverse campaigns add further ethical and governance concerns, including disclosure, authenticity, identity transparency, privacy, brand safety, and performance measurement (Chung et al., 2020; Dwivedi et al., 2023; Park & Yoo, 2020; Petit et al., 2019; Rangaswamy et al., 2020). These concerns are especially relevant when persuasive communication is mediated by human-like agents, immersive interfaces, or platform algorithms.

Overall, the gaps in Table 6 indicate that the field needs stronger explanations of how firms develop, coordinate, govern, and sustain digital marketing capabilities over time. Capability-related studies suggest that digital resources create value when they are integrated with processes, skills, strategy, and organizational routines rather than adopted as stand-alone tools (Barney, 1991; Day, 1994; Herhausen et al., 2020; Homburg & Wielgos, 2022; Teece et al., 1997). E-commerce and analytics research should further explain how firms coordinate online and offline channels, platform-based commerce, and performance

metrics across different organizational settings (Elia et al., 2021; Melović et al., 2020; Rangaswamy et al., 2020; Saura, 2021). Future research should therefore examine not only which digital technologies firms adopt but also how firms govern data, trust, human oversight, and cross-channel coordination under different capability, resource, and market conditions.

5. Final Considerations

This study provides an updated bibliometric science map of digital marketing research in business and management from 2018 to 2025. The findings indicate an increasing academic emphasis on digital marketing capabilities, trust-sensitive interactions, and technology-enabled marketing systems rather than direct evidence that managerial practice has moved away from channels. The central contribution is to reinterpret recent digital marketing research as a capability-oriented field while identifying research gaps and conceptual, practice-oriented propositions related to capability development, trust governance, AI readiness, influencer and immersive marketing governance, and omnichannel integration. This interpretation is consistent with capability-based and dynamic capability perspectives, which emphasize the strategic role of valuable organizational resources, market-sensing and customer-linking processes, and the capacity to integrate, build, and reconfigure competences under changing conditions (Barney, 1991; Day, 1994; Herhausen et al., 2020; Homburg & Wielgos, 2022; Teece et al., 1997).

This study has five limitations. First, coverage is limited to Scopus-indexed, English-language journal articles with finalized metadata. This restriction may underrepresent scholarship published in other databases, languages, and regional contexts, including Spanish- and Portuguese-language studies on digital marketing in Ibero-American research contexts. Second, the search string was intentionally restricted to “digital marketing” and close lexical equivalents. As a result, adjacent streams such as social media marketing, content marketing, influencer marketing, and omnichannel marketing were captured only when they appeared within the retrieved digital marketing corpus, which creates a primary search-string sampling limitation. Third, because the data were retrieved on January 27, 2026, some 2025 publications may not yet have been fully indexed in Scopus or may not have accumulated stable citation information. Fourth, keyword harmonization, temporal segmentation, cluster labeling, and threshold selection involved researcher judgment, although sensitivity checks were used to assess thematic stability. Fifth, bibliometric analysis maps metadata, publication patterns, keyword co-occurrences, thematic visibility, and citation structures; it does not assess the quality, theoretical validity, empirical rigor, causal relationships, or managerial effectiveness of the individual studies analyzed.

Future research should extend coverage across databases, languages, and regional contexts and examine the identified conceptual propositions using longitudinal, comparative, and firm-level designs. In particular, future studies could investigate how firms develop digital marketing capabilities over time, how trust and data governance operate across digital touchpoints, and how AI, immersive technologies, and omnichannel integration create value under different organizational and market conditions.

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6. Declarations

6.1. Ethical considerations

Not applicable. This study is based exclusively on secondary bibliographic metadata retrieved from Scopus and does not involve human participants, animal subjects, clinical data, personal identifiable information, questionnaires, interviews, or experimental procedures. Therefore, ethical approval and informed consent were not needed.

6.2. Use of artificial intelligence (AI)

The authors declare that no generative artificial intelligence (AI) tools were used in the preparation, analysis, or writing of this manuscript.

6.3. Conflict of interest

The authors declare that they have no conflicts of interest.

6.4. Funding

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