

Unveiling The Intellectual Structure and Research Frontiers of Influencer Marketing: A Bibliometric and Science Mapping Analysis Using Vosviewer

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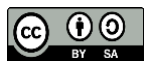
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ABSTRAK

Perkembangan media sosial dan ekonomi kreator telah menempatkan influencer marketing sebagai salah satu fenomena penting dalam masyarakat digital kontemporer. Namun, pertumbuhan penelitian yang pesat di bidang ini menghasilkan pengetahuan yang semakin luas dan terfragmentasi, sehingga diperlukan pemetaan untuk memahami struktur intelektual dan arah perkembangan penelitiannya. Penelitian ini bertujuan untuk mengidentifikasi struktur intelektual, hubungan tematik, dan perkembangan temporal penelitian mengenai influencer marketing. Penelitian menggunakan pendekatan analisis bibliometrik dan science mapping terhadap publikasi yang terindeks dalam Scopus pada periode 2000–2026, dengan VOSviewer digunakan untuk menganalisis keyword co-occurrence, thematic clusters, density visualization, dan overlay

visualization. Hasil penelitian menunjukkan bahwa influencer marketing, social media, influencers, purchase intention, engagement, consumption behavior, dan commerce merupakan tema sentral yang membentuk struktur intelektual bidang ini. Analisis juga menunjukkan adanya pergeseran tematik dari penelitian yang berorientasi pada perilaku konsumen menuju isu yang lebih kompleks, seperti virtual influencers, artificial intelligence, generative AI, creator economy, social commerce, green marketing, sustainable consumption, transparency, privacy, dan kidfluencers. Perkembangan temporal menunjukkan bahwa influencer marketing semakin bergeser dari sekadar strategi promosi menuju fenomena pengaruh sosial yang dimediasi secara digital, yang melibatkan interaksi antara influencer, konsumen, merek, platform, algoritma, dan teknologi. Dari perspektif ilmu sosial, temuan ini menunjukkan pentingnya mengembangkan penelitian influencer marketing melalui perspektif pengaruh sosial, hubungan parasosial, identitas digital, platform society, digital labor, interaksi manusia–AI, norma sosial, dan tata kelola digital. Penelitian ini berkontribusi dengan menyediakan pemetaan komprehensif mengenai perkembangan intelektual influencer marketing sekaligus mengidentifikasi agenda penelitian masa depan pada persimpangan antara pemasaran, teknologi, dan transformasi sosial digital.

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ABSTRACT

The rapid development of social media and the creator economy has positioned influencer marketing as an increasingly important phenomenon in contemporary digital society. However, the rapid expansion of research in this field has resulted in a fragmented body of knowledge, making it necessary to identify its intellectual structure and emerging research frontiers. This study aims to map the intellectual structure, thematic relationships, and temporal development of research on influencer marketing. A bibliometric analysis and science mapping approach was employed using publications indexed in Scopus from 2000 to 2026, with VOSviewer used to analyze keyword co-occurrence, thematic clusters, density, and temporal trends. The findings indicate that influencer marketing, social media, influencers, purchase intention, engagement, consumption behavior, and commerce constitute the central themes shaping the intellectual structure of the field. The analysis further reveals a thematic shift from conventional consumer-oriented research toward emerging issues involving virtual influencers, artificial intelligence, generative AI, creator economy, social commerce, green marketing, sustainable consumption, transparency, privacy, and kidfluencers. The temporal mapping suggests that influencer marketing is increasingly evolving from a promotional strategy into a broader digitally mediated social influence phenomenon involving interactions among influencers, consumers, brands, platforms, algorithms, and emerging technologies. From a social sciences perspective, these findings highlight the need to examine influencer marketing through broader theoretical lenses, including social influence, parasocial relationships, digital identity, platform society, digital labor, human–AI interaction, social norms, and digital governance. This study contributes by providing a comprehensive map of the evolution of influencer marketing and identifying future research directions at the intersection of marketing, technology, and digital social transformation intervention.

INTRODUCTION

The evolution of social media has transformed how companies communicate with consumers, manage brands, and influence purchasing decisions. Unlike traditional marketing communication, which tends to be one-way, social media enables consumers to interact directly with brands, content creators, and digital communities. Within this ecosystem, social media influencers (SMIs) have emerged as key players in marketing activities due to their ability to build audiences, produce personalized content, and foster social connections with their followers. Consequently, influencer marketing is no longer merely a form of digital endorsement; it has evolved into a marketing communication mechanism that connects brands, platforms, creators, and consumers within an increasingly complex digital ecosystem. Research indicates that an influencer's effectiveness is determined not only by follower count but also by perceptions of popularity, credibility, attractiveness, audience similarity, and the fit between the influencer and the promoted product (De Veirman et al., 2017; Lou & Yuan, 2019).

Conceptually, influencer marketing has evolved from celebrity endorsements into a more decentralized, community-based form of influence. Influencers can establish legitimacy through their expertise, experience, personality, social proximity, and ongoing interaction with followers. This dynamic creates a persuasion mechanism distinct from

conventional advertising, as commercial messages are conveyed by figures whom the audience perceives as more relatable and authentic. Content informativeness, trustworthiness, attractiveness, and the influencer's similarity to followers contribute to trust in branded content, which in turn influences brand awareness and purchase intention (Lou & Yuan, 2019). Meanwhile, De Veirman et al. showed that follower count can affect perceptions of an influencer's popularity and likeability, although the impact on brand attitudes depends on the product context (De Veirman et al., 2017). These findings illustrate that influencer marketing is a multidimensional phenomenon encompassing aspects of communication, consumer psychology, branding, social media, and purchasing behavior.

However, the growth of influencer marketing has also given rise to increasingly complex academic issues. The commercialization of the relationship between influencers and brands can create tension between commercial interests and the perception of authenticity. Followers often value an influencer's intrinsic motivations and non-commercial orientation; consequently, brand collaborations have the potential to alter perceptions of the influencer's authenticity. Influencers must manage their authenticity when faced with commercial demands, while research on sponsorship disclosure indicates that the manner in which commercial relationships are disclosed can influence influencer credibility, audience engagement, brand attitudes, and purchase intentions (Audrezet et al., 2020). Thus, the evolution of influencer marketing raises questions not only regarding marketing effectiveness but also concerning transparency, authenticity, credibility, parasocial relationships, ethics, and the governance of digital commercial communication.

The expansion of this topic has led to rapid growth in influencer marketing literature, spanning diverse disciplines and research contexts. Previous studies have examined influencers through the lenses of source credibility, parasocial interaction, consumer engagement, brand attitude, purchase intention, authenticity, sponsorship, and social commerce. Concurrently, advancements in technology and digital platforms have broadened the scope of research to include virtual influencers, artificial intelligence, algorithms, the creator economy, livestream commerce, and various platform-based influencer models. A comprehensive review of 214 articles published between 2008 and 2021 reveals that influencer marketing research encompasses a wide array of theories, methods, constructs, and themes, with parasocial interaction, sponsorship, authenticity, engagement, and influence emerging as key research streams. The study further demonstrates that influencer marketing research incorporates consumer, brand, content, social, and technological perspectives, thereby highlighting the field's multidisciplinary nature (Joshi et al., 2025).

However, the rapid growth of the literature raises questions regarding how the knowledge structure within the field of influencer marketing is formed and evolves. While literature-based reviews offer conceptual syntheses, they often fail to visually illustrate the

relationships between themes, research clusters, and keyword trends, or to map the positioning of emerging themes within the broader knowledge network. This issue is increasingly critical as influencer marketing has expanded beyond its initial focus on purchase intention and brand attitude to encompass a more diverse range of topics, including social commerce, the creator economy, virtual influencers, artificial intelligence, sustainability, transparency, consumer protection, and digital engagement. Indeed, recent bibliometric studies indicate that influencer marketing has generated a vast body of literature and that virtual influencer marketing is emerging as a growing area of focus within the field. Consequently, there is a need for scientific mapping that examines the field not merely through individual findings, but through the structural relationships between concepts as they appear in the literature.

This need highlights the scope for more comprehensive bibliometric research and science mapping. Unlike narrative reviews or systematic literature reviews which primarily focus on synthesizing research content—bibliometric analysis enables researchers to identify publication patterns, keyword relationships, cluster structures, and the evolution and interconnectedness of research themes based on large-scale bibliographic data. In the context of influencer marketing, this approach is crucial given the field's rapid, multidisciplinary nature and its susceptibility to the influence of technological advancements and digital platforms. While (Joshi et al., 2025) demonstrated the value of a bibliometric-content analysis approach in mapping the foundations and trends of influencer marketing, their study's temporal scope concluded in 2021. Subsequent research has revealed a growing focus on the creator economy, artificial intelligence, virtual influencers, transparency, and ethical dimensions. Studies on the creator economy, for instance, indicate that influencer marketing must now be understood as part of a broader value chain involving creators, platforms, brands, and consumers (Libai et al., 2025). Consequently, a literature mapping covering a more extended period is required to gain a more holistic understanding of the field's intellectual evolution.

Given these developments, this study aims to uncover the intellectual structure and research frontiers in the field of influencer marketing through bibliometric analysis and science mapping using VOSviewer. Specifically, the study seeks to: (1) identify publication trends and research contributions in the field of influencer marketing; (2) map the relationships and keyword clusters that constitute the field's knowledge structure; (3) identify key themes and emerging topics; and (4) reveal the trajectory of research development and opportunities for future research agendas. By mapping relationships between themes such as social media, purchase intention, consumer behavior, virtual influencers, social commerce, the creator economy, and digital technology, this study aims to provide a comprehensive overview of how the field of influencer marketing has evolved and the direction in which it is heading. The study contributes by providing a structural and evolutionary map that helps

researchers understand the intellectual foundations, thematic concentrations, and research frontiers of influencer marketing, while also establishing a basis for developing future research agendas within the study of digital marketing.

METHOD

This study employs bibliometric and science mapping approaches to identify the intellectual structure, thematic evolution, and research frontiers within the field of influencer marketing. Bibliometric analysis enables researchers to systematically evaluate the development of a field based on publication patterns, citation metrics, inter-publication relationships, and keyword associations. Furthermore, this approach allows for a more objective identification of the knowledge structure and evolution of a research field compared to conventional literature reviews (Zupic & Čater, 2015).

Research data were obtained from Scopus, covering publications from 2000 to 2026. Scopus was selected as the data source due to its provision of structured bibliographic metadata and extensive multidisciplinary literature coverage. Searches were conducted using a combination of keywords related to influencer marketing: "influencer marketing," "social media influencer," "digital influencer," "online influencer*," and "internet influencer." These keywords were applied to the title, abstract, and keyword fields to retrieve publications relevant to the research focus. Data were collected on [data collection date]; thus, the number of analyzed documents reflects the state of the database at that time. Inclusion criteria encompassed publications indexed in Scopus, published between 2000 and 2026, and demonstrating a substantive connection to influencer marketing. Documents irrelevant to the research focus, duplicates, and items with insufficient bibliographic information were excluded from the dataset. The retrieved publication metadata were exported into a format compatible with VOSviewer and reviewed to minimize data inconsistencies, particularly regarding term variations, duplicates, and keyword formatting.

The analysis was conducted using VOSviewer, software developed to construct, visualize, and explore bibliometric networks within a research field (van Eck & Waltman, 2010). This study employed co-occurrence analysis to identify relationships between keywords and map research themes in influencer marketing. In this analysis, node size indicates the frequency of a keyword's occurrence, while the connections between nodes represent the linkages or co-occurrence of keywords. The analysis served to identify thematic clusters and key themes that constitute the conceptual structure of the influencer marketing field.

In addition to co-occurrence analysis, the study employs co-authorship analysis to examine research collaboration patterns, as well as citation and co-citation analysis to identify influential publications and the intellectual foundations of the influencer marketing field. Bibliographic coupling is used—where applicable—to identify research clusters that

share common references and represent more contemporary research developments. These techniques are primary methods in science mapping for identifying the intellectual, social, and conceptual structures of a research field (Zupic & Čater, 2015).

To identify thematic evolution, network, overlay, and density visualizations are employed in a complementary manner. Network visualization is used to identify research relationships and clusters; overlay visualization is used to observe the temporal evolution of themes based on publication year; and density visualization is used to identify thematic concentrations within the research network. These visualization approaches enable the study not only to identify established themes but also to recognize emerging topics with the potential to become research frontiers—such as virtual influencers, the creator economy, social commerce, artificial intelligence, sustainable consumption, and green marketing. VOSviewer is specifically designed to generate bibliometric network visualizations, facilitating the easier interpretation of relationships and research clusters within large datasets (van Eck & Waltman, 2010).

RESULT

Publication Growth and Research Development

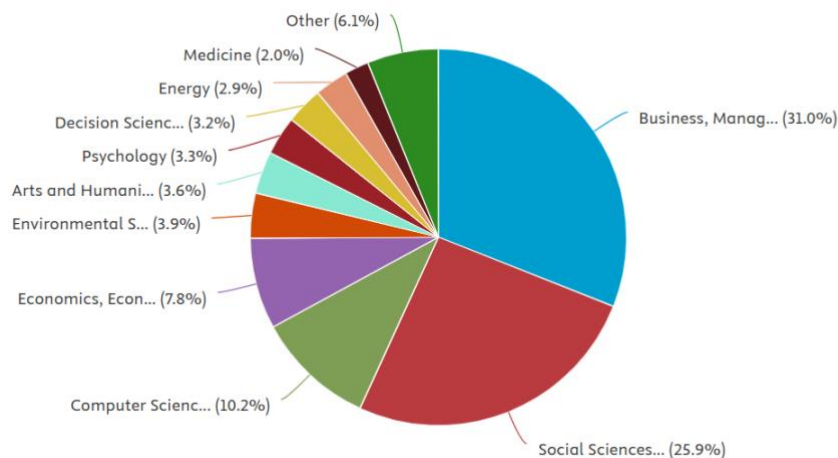
An initial search of the Scopus database—conducted prior to filtering by subject area—yielded 4,780 publications related to influencer marketing within the study period. The distribution by subject area reveals that research is dominated by the fields of Business, Management, and Accounting (2,649 documents), followed by Social Sciences (1,512 documents) and Computer Science (1,421 documents). Economics, Econometrics, and Finance ranks next with 976 documents, while Engineering and Decision Sciences account for 532 and 434 documents, respectively. These findings indicate that while influencer marketing research is fundamentally rooted in business and management, it has evolved into a multidisciplinary field encompassing social sciences, computer science, economics, engineering, psychology, health, and other disciplines.

Regarding document types, the corpus is dominated by journal articles (3,114 documents), followed by conference papers (763 documents) and book chapters (672 documents). Review articles account for 158 documents, followed by books (108 documents) and conference reviews (48 documents). Other document types, such as editorials, notes, errata, letters, and short surveys, represent a relatively small share of the total. The prevalence of journal articles suggests that influencer marketing research has matured into an established academic field that consistently produces both empirical and conceptual studies.

In terms of publication language, English overwhelmingly dominates the literature, accounting for 4,778 documents. Spanish-language publications rank second with 95 documents, followed by Portuguese (27 documents) and German (14 documents). Other

languages including Chinese, Dutch, Russian, Italian, Turkish, Korean, and Malay, account for a relatively limited number of publications. This dominance of English indicates that the advancement of knowledge regarding influencer marketing primarily occurs through English-language scholarly communication and reflects a strong international orientation.

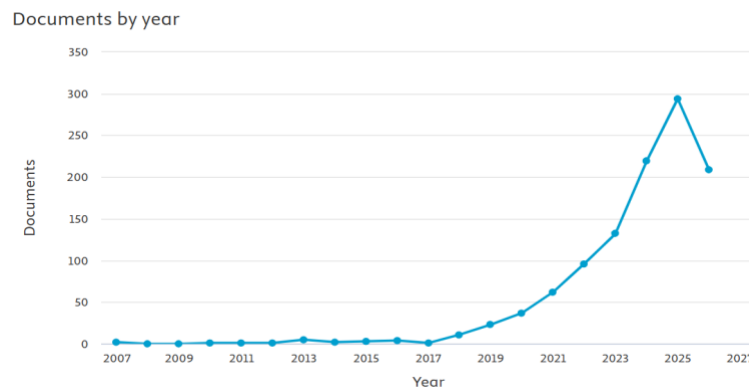
Figure 1. Distribution of subject areas regarding the theme of influencer marketing over the last 20 years



Source: <https://scopus.com/>

During the initial screening stage, the research focused on three primary subject areas: Business, Management, and Accounting (2,649 documents); Social Sciences (1,512 documents); and Economics, Econometrics, and Finance (976 documents). This screening was conducted to ensure the dataset remained relevant to the study's core perspective, viewing influencer marketing as a phenomenon encompassing marketing, social behavior, and digital economic activity. Consequently, the filtered dataset is expected to provide a more representative overview of the intellectual structure and thematic evolution of influencer marketing research across the business, social, and economic domains.

Figure 2. Distribution of the Number of Scientific Articles on Influencer Marketing over 20 Years

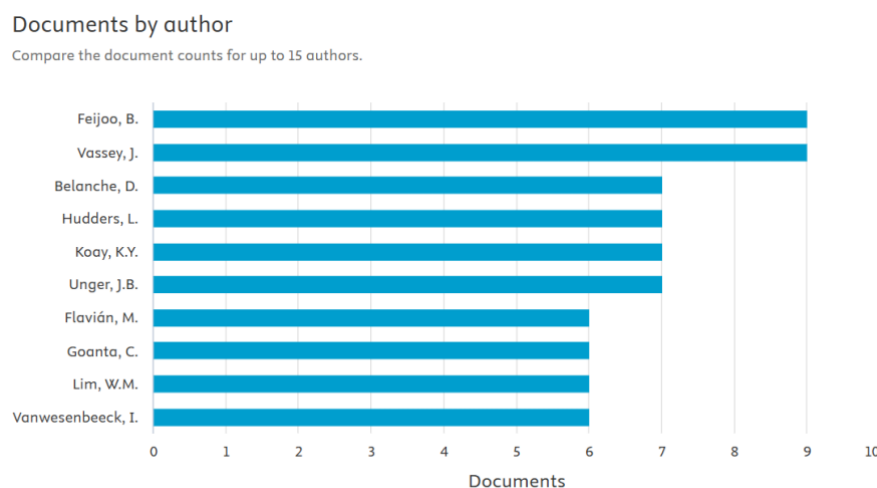


Source: <https://scopus.com/>

Most Influential Publications and Sources

Data from Scopus regarding author productivity indicates that research on influencer marketing involves a number of authors who consistently contribute to the field's development. According to Scopus data, B. Feijoo and J. Vassey are the authors with the highest number of publications, each having produced nine documents. Following them, D. Belanche, L. Hudders, K. Y. Kody, and J. B. Unger have each produced seven documents. Meanwhile, M. Flavián, C. Goanta, W. M. Lim, and I. Vanwesenbeeck are each credited with six documents in the field of influencer marketing.

Figure 3. Author Productivity on the Topic of Influencer Marketing

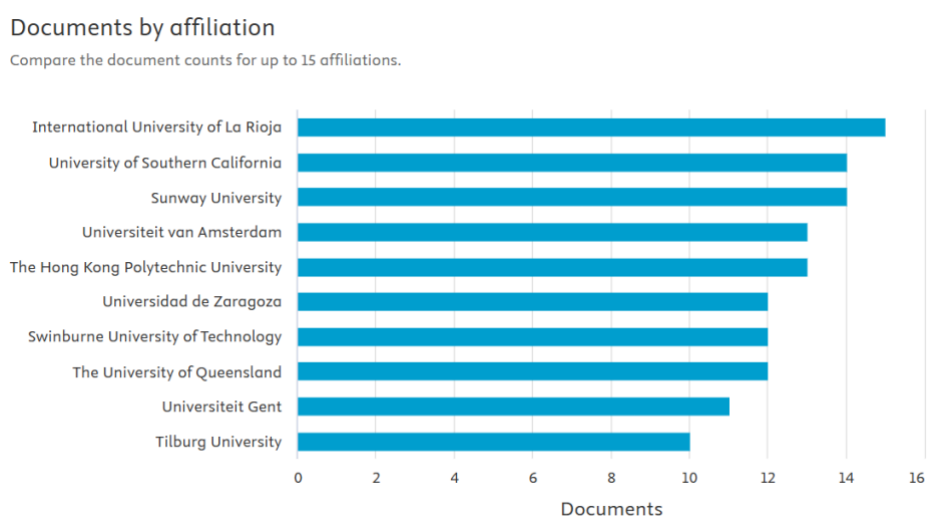


Source: <https://scopus.com/>

The findings indicate that research productivity in influencer marketing is relatively concentrated among a select group of authors who consistently advance the study of influencer-based marketing, consumer behavior, social media, and digital communication.

For instance, W. M. Lim has made significant contributions to the conceptual and systematic development of the field, while authors such as Hudders and Belanche have contributed extensively to research on influencers, credibility, marketing communication, and consumer response. Consequently, this group of prolific authors can be viewed as a key foundation in the evolution of influencer marketing literature. However, a high volume of publications does not automatically signify that an author is the most influential in the field; productivity (number of documents) must be distinguished from scholarly impact (citation impact). Therefore, these findings regarding the most prolific authors need to be complemented by analyses of citation counts, total link strength, co-authorship, and co-citation to determine who holds the greatest intellectual influence and how expert collaboration networks are formed.

Figure 4. Distribution of Affiliations with the Most Authors Over 20 Years



Source: <https://scopus.com/>

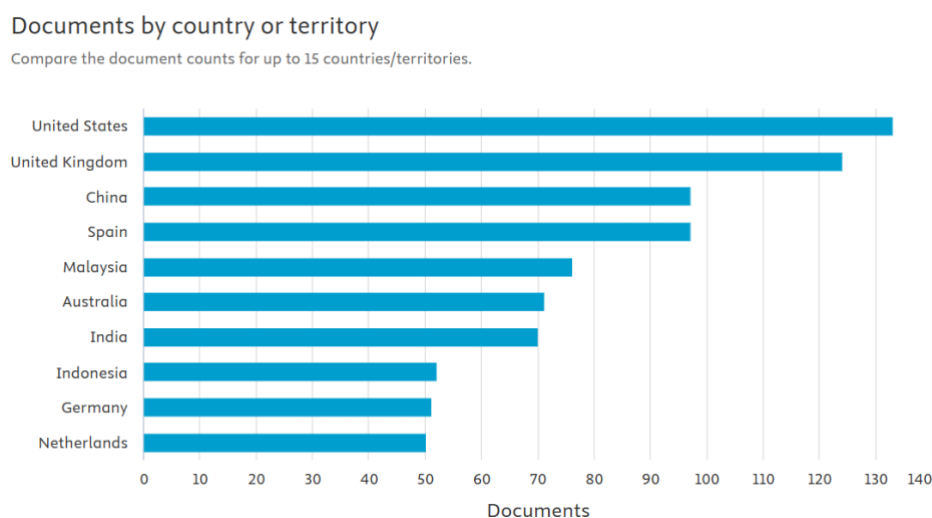
An analysis based on affiliations reveals that research on influencer marketing has expanded across academic institutions in various countries. In terms of document volume, the International University of La Rioja leads with the highest contribution, 15 documents, followed by the University of Southern California and Sunway University, each with 14 documents. Next, the University of Amsterdam and The Hong Kong Polytechnic University have each produced 13 documents, while the University of Zaragoza, Swinburne University of Technology, and The University of Queensland have each contributed 12 documents.

Other institutions demonstrating significant productivity include Ghent University (11 documents) and Tilburg University (10 documents). This distribution indicates that influencer marketing research is not concentrated in any single country or region but is flourishing through a network of institutions spanning Europe, North America, Asia, and Australia. The

presence of institutions from these diverse regions highlights influencer marketing as a global research topic involving cross-national and interdisciplinary perspectives.

Interestingly, several of the top-ranked institutions also feature prominent researchers who have made significant contributions to the influencer marketing literature. This suggests a link between institutional productivity and the presence of core research groups consistently advancing studies on influencers, social media, consumer behavior, marketing communication, and the digital economy. Thus, the distribution of affiliations not only reflects publication volume but also identifies the academic hubs playing a pivotal role in shaping the evolution of the influencer marketing field.

Figure 5. Distribution of Countries with the Most Authors Over the Past 20 Years



Source: <https://scopus.com/>

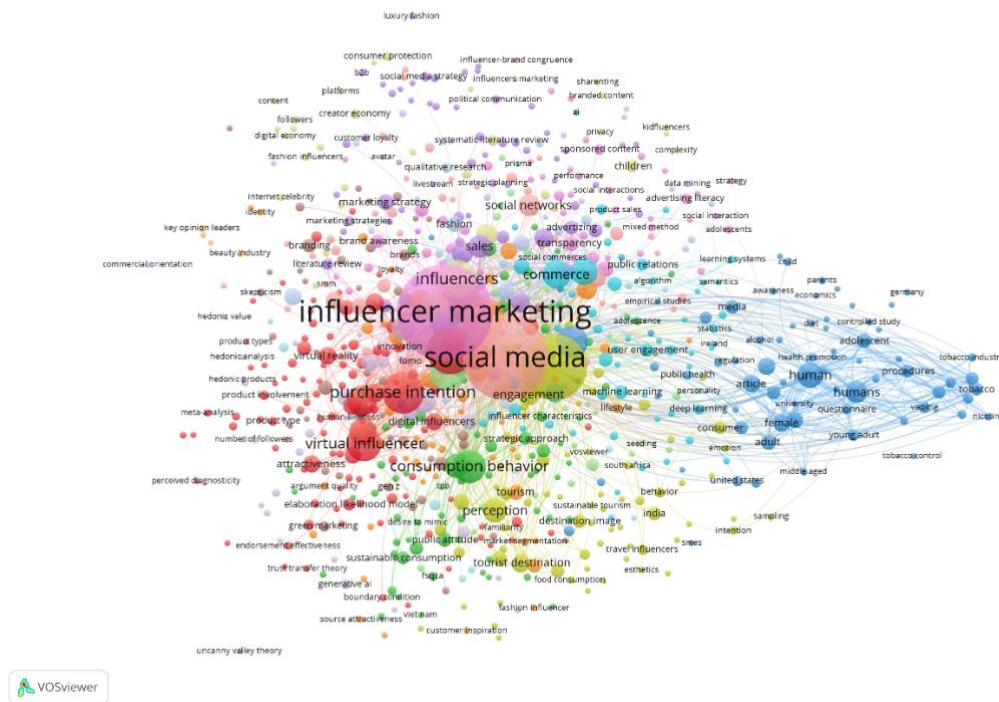
Keyword Co-Occurrence and Thematic Clusters

Keyword co-occurrence analysis was conducted to identify the key concepts and thematic relationships shaping the evolution of influencer marketing research. This analysis relies on the co-occurrence of keywords within publications; thus, keywords that frequently appear together indicate conceptual linkages between research themes. In the VOSviewer visualization, node size reflects keyword frequency, while the lines and proximity between nodes indicate the strength of the relationships or connections among keywords. Different colors represent thematic groups or clusters formed based on the closeness of the relationships between keywords.

The visualization in Figure 6 reveals that influencer marketing research forms a dense, multidimensional network, with several key keywords situated at its core. "Influencer marketing" appears as the most dominant node, serving as a central hub connecting various research themes. Keywords such as "social media," "purchase intention," "influencers," "social networks," "commerce," and "consumption behavior" also exhibit relatively large

node sizes, highlighting their high frequency and strategic position within the influencer marketing literature.

Figure 6. Network Visualization of the Keyword "Influencer Marketing" Over the Last 20 Years



Source: Mapping of Research by VOSviewer

Conceptually, the visualization can be interpreted in terms of several key thematic clusters, as follows:

- ## 1. Cluster influencer marketing, social media, and consumer response

The central part of the network reveals a strong connection among influencer marketing, social media, influencers, engagement, and purchase intention. The proximity of these keywords indicates that a primary focus of influencer marketing research is how the use of influencers on social media shapes consumer responses. This theme is also linked to keywords such as trust, attractiveness, credibility, product involvement, customer engagement, and perception. Consequently, the literature in this cluster largely focuses on the psychological and behavioral mechanisms explaining how influencer characteristics and social media interactions influence consumer attitudes and decisions.

2. Cluster purchase intention, virtual influencer, and consumer behavior.

In the bottom-left section of the network, strong interconnections are evident among purchase intention, virtual influencers, attractiveness, trustworthiness, product

involvement, hedonic value, and consumer behavior. This cluster reflects a research trend that positions influencers as stimuli within the consumer decision-making process. The emergence of the term "virtual influencer" as a prominent node indicates that research focus has shifted from human influencers toward digital figures or technology-based influencers. Themes such as virtual reality, human-likeness, uncanny valley theory, and AI influencers further highlight the growing convergence of influencer marketing and digital technology.

3. Cluster social commerce, commerce, and creator economy

The upper-central section of the network illustrates the interconnections among commerce, social commerce, sales, marketing strategy, the creator economy, platforms, and social networks. This cluster highlights the shift of influencer marketing from a mere communication and promotional tool into an integral part of the digital commerce ecosystem. Influencers function not only as conveyors of marketing messages but also as key actors connecting brands, platforms, communities, and consumers throughout the processes of value creation and transaction. The emergence of the creator economy and social commerce indicates that contemporary research is increasingly focusing on the economic aspects and commercialization of influencer activities.

4. Cluster branding, advertising, and strategic communication

In the upper-left section of the network, keywords such as branding, brand awareness, marketing strategy, advertising, influencer advertising, celebrity endorsements, marketing communication, public relations, and strategic communication are visible. This cluster indicates that influencer marketing is also evolving as part of integrated marketing communication strategies. Research in this area tends to examine how influencers are utilized to boost brand awareness, build consumer relationships, strengthen brand image, and convey promotional messages in a more personal manner compared to traditional forms of advertising.

5. Cluster tourism, destination marketing, and sustainable consumption.

At the bottom of the network, the interrelationships among tourism, tourism marketing, destination image, tourist destinations, travel influencers, sustainable tourism, and sustainable consumption are evident. This demonstrates that influencer marketing is applied not only to consumer products but also to destination and tourism marketing. Influencers are utilized to shape perceptions of destinations, boost visit intentions, and influence tourist behavior. The emergence of sustainable tourism and sustainable consumption reflects an expansion of research into sustainability-related issues.

6. Cluster health, adolescents, tobacco, and public policy.

On the right side of the network, a cluster of keywords appears that differs somewhat from the primary marketing theme—including terms such as *human*, *humans*, *adolescent*, *adult*, *female*, *health*, *psychology*, *tobacco*, *nicotine*, *vaping*, *electronic cigarette*, and *public health*. This cluster indicates that the concepts of influencers and social media are also employed in research concerning health communication and public behavior, specifically regarding the relationship between digital media, influencers, youth demographics, and the consumption of certain products. The presence of this cluster highlights the multidisciplinary nature of influencer research, even though the topic is situated relatively far from the core of marketing studies.

7. Cluster emerging issues: AI, kidfluencers, transparency, privacy, and sponsored content.

In the upper section of the network, a number of more specific and relatively peripheral terms appear—such as AI, kidfluencers, children, privacy, transparency, sponsored content, branded content, influencer-brand congruence, and sharenting. The positioning of these terms is noteworthy, as it reflects a growing focus on ethical, regulatory, transparency, and technological dimensions within influencer marketing. In particular, the emergence of terms like "kidfluencers," "children," and "sharenting" signals an expansion of influencer studies to encompass issues regarding children and families within the digital ecosystem. Meanwhile, "transparency" and "sponsored content" highlight the increasing attention paid to the disclosure of commercial relationships between influencers and brands.

A keyword co-occurrence map reveals that the research structure of influencer marketing has evolved from an initial focus on influencers as promotional tools into a far more complex research ecosystem. While the core structure remains dominated by relationships among influencer marketing, social media, engagement, purchase intention, and consumer behavior, the network has expanded to encompass social commerce, the creator economy, virtual influencers, AI, tourism, sustainability, health communication, transparency, and ethical issues. These findings highlight two key characteristics of the influencer marketing field. First, the research features relatively established core themes—specifically social media, influencers, consumer behavior, purchase intention, and marketing. Second, there are emerging research themes located at the network's periphery, such as artificial intelligence, virtual influencers, kidfluencers, transparency, sustainability, and the creator economy.

the significant academic attention paid to how influencer activities and social media communication influence consumers' intent to make a purchase. Meanwhile, the presence of "engagement" and "commerce" near the core area illustrates the interconnections between audience engagement, influencer activity, and commercialization processes within the digital ecosystem.

The green-colored area surrounding the network center highlights themes that are strongly linked to the core topics. These include "consumption behavior," "virtual influencer," "sales," "social networks," "marketing strategy," "perception," "attractiveness," and "tourism." Their positioning indicates that while these themes have garnered considerable attention in the literature, their concentration remains lower than that of the core themes. Substantively, this area reflects the expansion of influencer marketing research into consumer behavior, marketing strategies, influencer characteristics, social commerce, and the use of influencers in the tourism sector.

Interestingly, "virtual influencer" is positioned quite close to the core area, situated within a relatively strong green zone. This demonstrates that the study of virtual influencers has become a vital component of the evolution of influencer marketing research. This theme is also closely associated with terms such as "virtual reality," "human-likeness," "digital influencers," "AI influencer," and "uncanny valley theory." This pattern suggests a shift in research focus from human influencers toward influencers driven by technology and artificial intelligence.

In the more peripheral, blue-colored areas, various themes with lower density are found, such as "kidfluencers," "sharenting," "privacy," "sponsored content," "creator economy," "generative AI," "green marketing," and "sustainable consumption," alongside health-related topics like "tobacco," "vaping," and "public health." This peripheral positioning indicates that these themes exhibit a lower frequency of occurrence and/or degree of interconnectedness compared to core themes. However, this does not imply that such themes lack importance; on the contrary, some peripheral themes may represent areas of specialization or emerging developments that have not yet attained the same density as the primary themes.

From the perspective of the field's evolution, density visualization reveals a concentric structure within influencer marketing research. The innermost layer is dominated by established themes, namely influencer marketing, social media, purchase intention, influencers, engagement, and commerce. The subsequent layer encompasses themes that are evolving and maintain strong links to the core, such as consumption behavior, virtual influencers, social networks, marketing strategy, perception, and tourism. Meanwhile, the peripheral layer comprises themes that are more specific or relatively new, such as AI, generative AI, kidfluencers, privacy, transparency, sustainable consumption, green marketing, and the creator economy.

Subsequent developments saw the growing prominence of themes such as "virtual influencer," "digital influencers," "human-likeness," "virtual reality," "machine learning," and "algorithm." The positioning and coloring of these themes signal a shift in focus toward the intersection of influencer marketing and digital technology. Notably, "virtual influencer" emerged as a key theme linking influencer studies with issues of digital identity, attractiveness, human perception of virtual figures, and the technologies enabling the creation of non-human influencers.

In the most recent period, there has been increased attention toward themes related to artificial intelligence and generative AI. Terms such as "generative AI," "AI," and "machine learning" along with other technology-related themes appear within the green-to-yellow color spectrum. This indicates that the latest developments in influencer marketing are beginning to intersect with artificial intelligence and automated content production. This shift expands the concept of influencer marketing moving beyond the relationships between humans, brands, and audiences into an ecosystem that also incorporates technology as an actor in content creation and distribution.

The theme of sustainability also reflects a relatively new trend. Keywords such as "green marketing," "sustainable consumption," "sustainable tourism," "green influencers," and topics related to sustainable marketing fall within the green-yellow to yellow spectrum. This pattern indicates that influencer marketing is increasingly linked to issues of sustainable consumption, green marketing, and environmental communication. Consequently, the role of influencers is no longer solely focused on boosting sales or purchase intentions but also on shaping consumer attitudes and behaviors regarding sustainability.

Beyond technology and sustainability, there is also an evolution of themes concerning the ethics and governance of influencer marketing—such as "transparency," "sponsored content," "privacy," "consumer protection," "kidfluencers," "children," and "sharenting." The emergence of these themes suggests that the growing complexity of the influencer marketing ecosystem is driving attention toward issues regarding commercial content disclosure, consumer protection, privacy, and the involvement of children in the creator economy. These themes are significant as they demonstrate that the evolution of influencer marketing creates not only marketing opportunities but also social and ethical issues requiring academic attention.

Interestingly, the concepts of the "creator economy" and "social commerce" are also evolving into a newer phase. Both themes highlight the transformation of influencers from mere content creators or marketing communicators into integral parts of the digital economic ecosystem. Influencers are becoming increasingly integrated with platforms, trading activities, sales, commerce, and economic value creation. This indicates a shift from an endorsement-oriented influencer marketing model toward a model that is more deeply integrated with platform ecosystems and the creator economy.

The overlay visualization reveals an evolution in influencer marketing research that can be summarized into four key trends: (1) Social Media & Consumer Response, (2) Influencer Commerce & Engagement, (3) Virtual/Digital Influencers & AI, and (4) Sustainability, Ethics & Creator Economy. This temporal structure indicates a shift from fundamental inquiries regarding influencer effectiveness on social media and their impact on consumers toward a more complex research agenda encompassing technology, artificial intelligence, the creator economy, sustainability, transparency, privacy, and consumer protection.

Based on this map, several themes specifically generative AI, virtual influencers, the creator economy, green marketing, sustainable consumption, transparency, "kidfluencers," and consumer protection, can be considered research frontiers in the field of influencer marketing. These themes indicate a diversification of research and offer potential avenues for future scholarly development. However, identifying research frontiers should not rely solely on visual indicators (such as the "yellow" color spectrum); it must also take into account frequency of occurrence, network positioning, interconnectedness with core themes, and publication trends to ensure a more robust bibliometric interpretation.

Table 1. Table of Article Theme Evolution Over 20 Years Based on VOSviewer Overlay Visualization

Period	Thematic trends	Development
2021–2022	Social media, influencer marketing, influencers, purchase intention	Foundations of influencer marketing and consumer response
2022–2023	Engagement, commerce, social networks, influencer characteristics	Integrating influencers with digital marketing and commerce strategies
2023–2024	Virtual influencer, digital influencers, AI, machine learning	The technologization and virtualization of influencers
2024–2025	Generative AI, green marketing, sustainable consumption, creator economy	The emergence of new agendas driven by AI, sustainability, and the creator economy
Emerging frontier	Transparency, privacy, kidfluencers, consumer protection	Expansion into issues of ethics, regulation, and social protection

DISCUSSION

This Research findings indicate that influencer marketing has evolved from a social media-based marketing topic into an increasingly complex, multidisciplinary field of study. Bibliometric mapping covering the period from 2000 to 2026 reveals that the field's intellectual structure is primarily shaped by the interconnections among influencer marketing, social media, influencers, purchase intention, engagement, commerce, and consumption behavior. Concurrently, temporal trends show a shift in focus toward virtual influencers, artificial intelligence, the creator economy, sustainable consumption, green

marketing, transparency, privacy, and "kidfluencers." Thus, the findings demonstrate that influencer marketing can no longer be understood merely as a promotional technique, but rather as an integral part of the transformation of communication, consumption, and digital economy ecosystems.

The dominance of influencer marketing and social media at the core of the network reinforces the argument that social media serves as the primary infrastructure enabling influencers to perform marketing functions. However, the prevalence of keywords such as "purchase intention," "engagement," and "consumption behavior" indicates that research attention extends beyond mere influencer activities to focus on the mechanisms by which such influence translates into consumer responses. These findings align with Pradhan et al. (2023), who highlight the relationship between social media influencers and consumer engagement as a key domain in the literature, focusing on antecedents, engagement processes, and consumer outcomes. Ooi et al. (2023) further demonstrate that influencer credibility, media usage convenience, and interaction characteristics influence the formation of attitudes toward influencers and products, which subsequently impact purchase decisions (Ooi et al., 2023).

These findings can be explained through the perspectives of source credibility and the social relationship between influencers and their followers. Influencers possess the ability to influence consumers not merely due to their follower count, but because they are perceived to possess specific attributes such as expertise, attractiveness, closeness, authenticity, and credibility. Source characteristics, including expertise, authenticity, physical attractiveness, and homophily play a role in fostering follower trust, which in turn relates to product attitudes and purchase intentions (Kim & Kim, 2021). Similarly, Lou and Yuan demonstrate that message value and source credibility are crucial mechanisms for building trust in branded content on social media. Consequently, the strong connections observed in the bibliometric map among influencer marketing, social media, engagement, and purchase intention reflect a consistent academic focus on the trust–engagement–behavior mechanism within influencer marketing (Lou & Yuan, 2019).

Another significant finding is the emergence of virtual influencers as a theme situated close to the network's core. This indicates a shift in the intellectual structure of influencer marketing from a paradigm centered on human influencers toward a form of influence mediated by technology. The presence of keywords such as virtual reality, digital influencers, human-likeness, AI influencer, and uncanny valley theory suggests that research inquiries are shifting from "how effective are influencers?" to "how do human-like and technological characteristics influence perceptions of influencers?" This development is crucial because virtual influencers present a paradox between artificiality and authenticity. Recent research even indicates that virtual influencers can be perceived as credible despite being inherently inauthentic; credibility can serve as a psychological mechanism that mitigates this tension.

Thus, the emergence of virtual influencers in the research landscape represents more than just a variation in the object of study; it signifies a conceptual shift regarding who—or what—can act as a marketing agent within the digital ecosystem.

This shift is further highlighted by overlay visualizations showing the emergence of themes such as artificial intelligence, machine learning, and generative AI as part of more recent developments. These findings indicate that technology is no longer merely a distribution channel for influencer content but is beginning to function as an integral part of the processes of production, personalization, optimization, and even the creation of the influencer figure itself. Consequently, the boundaries between human influencers, content creators, and algorithm-based actors are becoming increasingly blurred. This situation opens up new theoretical avenues for influencer marketing research, as earlier models centered on human characteristics may no longer fully explain consumer relationships with influencers that are generated or enhanced by AI.

The evolution toward the creator economy and social commerce is another key finding of this study. While early research tended to view influencers merely as endorsers helping to convey brand messages, recent developments position them as part of a broader value-creation chain. Libai et al. emphasize that influencer marketing is becoming increasingly integrated with the creator economy, involving interactions among companies, influencers, followers, and digital platforms (Libai et al., 2025). Consequently, the emergence of commerce, sales, social commerce, and the creator economy within the network signals a shift from an endorsement economy to a platform-based creator economy. Influencers do not merely influence product perceptions; they play roles in community building, content generation, demand creation, transaction facilitation, and the maintenance of consumer relationship value.

However, this commercialization trend also creates a tension between authenticity and commercialization. As influencer-brand relationships intensify, there is a risk that content previously perceived as personal and authentic may become increasingly commercialized. Brand collaborations can create tension in managing influencer authenticity, as followers value an influencer's intrinsic motivations and non-commercial orientation (Audrezet et al., 2020). These findings help explain why keywords such as trust, attractiveness, credibility, transparency, and sponsored content appear alongside themes of marketing and commerce. In other words, the success of influencer marketing hinges on the ability to maintain perceived authenticity amidst rising commercialization.

The emergence of transparency and sponsored content as dimensions within the network also indicates that influencer marketing research is shifting from questions of effectiveness to those concerning legitimacy and responsibility. Jia et al. found that sponsorship disclosure can enhance trust in influencers, subsequently influencing attitudes toward products and purchase intentions (Jia et al., 2024). These findings have significant

implications for bibliometric results, as transparency should not be viewed as a factor that conflicts with marketing effectiveness. On the contrary, transparency can serve as a mechanism to maintain trust as commercial relationships between influencers and brands become more visible.

This shift is further reflected in the emergence of topics such as privacy, consumer protection, children, "kidfluencers," and "sharenting." This means that the research agenda is shifting its focus from the brand–influencer–consumer relationship toward the social impact of the influencer economy. This indicates that influencer marketing is increasingly intersecting with issues such as the protection of vulnerable groups, digital privacy, the commercialization of personal life, and the boundaries between social and commercial activities. Consequently, the development of this field requires perspectives drawn not only from marketing but also from communication, law, psychology, technology, and digital ethics.

The themes of green marketing, sustainable consumption, and sustainable tourism evident in the lower sections of the network also highlight the diversification of influencer roles. Influencers are increasingly studied as agents capable of shaping not only purchasing decisions but also sustainability-oriented values, attitudes, and consumption behaviors. In the Indonesian context, for instance, research indicates that social media influencers can play a role in fostering green lifestyles and value co-creation processes among Generation Z. These bibliometric findings suggest that influencer marketing has the potential to shift from an orientation of commercial persuasion toward social and sustainable influence. This evolution is significant as it expands the contribution of influencer marketing beyond mere economic value creation to include the creation of social and environmental value.

The research results reveal that the intellectual structure of influencer marketing can be understood through three layers of development. The first layer is consumer persuasion, centered on social media, influencer credibility, engagement, trust, and purchase intention. The second layer is digital commercialization, characterized by commerce, social commerce, sales, the creator economy, and platforms. The third layer is technological and societal transformation, encompassing virtual influencers, AI, generative AI, sustainability, transparency, privacy, and "kidfluencers." These three layers demonstrate that influencer marketing has evolved from a marketing communication strategy into a digital influence ecosystem that brings together consumers, influencers, brands, platforms, technologies, and social norms.

This study contributes by demonstrating that influencer marketing can no longer be adequately explained solely through the perspectives of source credibility or consumer behavior. While these theories remain vital foundations for explaining trust, engagement, and purchase intention, the rise of virtual influencers, AI, and the creator economy highlights the need for a more ecosystem-oriented framework. Future research could integrate source

credibility theory, social presence theory, parasocial relationship theory, signaling theory, and the platform economy perspective to explain how influence is formed within an increasingly digitized and automated digital environment. Indeed, recent research on virtual influencers suggests that authenticity and credibility may operate differently for non-human figures.

In practical terms, these findings indicate that companies should not evaluate influencers solely based on follower counts; factors such as credibility, authenticity, engagement, audience fit, transparency, and the ability to build long-term relationships must be considered simultaneously. Companies also need to understand that the use of AI and virtual influencers presents both opportunities and risks regarding consumer trust. Meanwhile, regulators and platforms need to pay greater attention to the transparency of sponsored content, consumer protection, privacy, and the involvement of children in influencer activities.

For future research, several agendas can be developed based on the identified research frontiers, particularly: (1) generative AI-based influencer marketing; (2) virtual influencers and authenticity; (3) the creator economy and social commerce; (4) influencer marketing for sustainable consumption and green marketing; and (5) transparency, privacy, and child protection. Future research on influencer marketing needs to move beyond simple questions regarding "whether influencers are effective" toward more complex inquiries into "how influencer influence is shaped through which technologies and ecosystems, and with what economic and social consequences." This shift in questioning serves as a key indicator that influencer marketing is evolving from a mere marketing strategy into a multidisciplinary research domain within the digital economy and society.

From a social science perspective, these research findings indicate that the future evolution of influencer marketing can no longer be adequately understood solely through the lenses of marketing effectiveness and consumer behavior; rather, it must be situated within the context of shifting social relationships mediated by digital platforms. The emergence of themes such as the creator economy, virtual influencers, artificial intelligence, social commerce, transparency, privacy, kidfluencers, green marketing, and sustainable consumption demonstrates that influencers increasingly act as social agents situated at the intersection of identity, culture, economics, technology, and platform power. Existing literature also reveals that credibility and authenticity do not merely determine communication effectiveness but are integral to how audiences build trust and form parasocial relationships with digital figures (Audrezet et al., 2020; Kim & Kim, 2021). The rise of virtual influencers further complicates this landscape by introducing a form of influence that does not originate entirely from human actors but rather from a combination of digital design, algorithms, AI technology, and audience social responses (Allal-Chérif et al., 2024; Audrezet et al., 2025). Simultaneously, the growth of the creator economy has shifted the

influencer's role from a mere brand communicator to an integral part of the labor and value-creation structures within the platform economy; consequently, issues regarding digital labor, the commercialization of identity, and value distribution among creators, platforms, and corporations have become increasingly pertinent. Furthermore, the emergence of kidfluencers, along with concerns regarding privacy and sponsored content, highlights how influencer marketing intersects with issues such as the protection of vulnerable groups, the blurring of boundaries between private and public life, and the governance of commercial communication in digital spaces. Likewise, the rise of green marketing and sustainable consumption offers an opportunity to examine influencers as agents who shape social norms and sustainable consumption behaviors, rather than viewing them merely as product endorsers. Therefore, future research agendas in influencer marketing should adopt a more multidisciplinary approach by integrating perspectives from social influence, parasocial relationships, digital identity, platform society, digital labor, human–AI interaction, social norms, and digital governance. This shift underscores that the research frontier of influencer marketing represents a fundamental move from the study of "influence on consumers" toward the study of "how social influence is produced, mediated, commercialized, and negotiated within digital society."

CONCLUSION

This study analyzes the intellectual structure and research frontiers in the field of influencer marketing through bibliometric analysis and science mapping using VOSviewer. The results indicate that influencer marketing has evolved into a multidisciplinary field of study. Keywords such as influencer marketing, social media, influencers, purchase intention, engagement, consumption behavior, and commerce emerge as central themes shaping the field's intellectual structure. Interconnections between these themes reveal that early research and established topics primarily focused on how influencers affect consumer perceptions, engagement, trust, and behavior. Temporal analysis shows an evolving research agenda shifting toward more complex issues, particularly virtual influencers, artificial intelligence, generative AI, the creator economy, social commerce, green marketing, sustainable consumption, transparency, privacy, and "kidfluencers." This shift demonstrates that influencer marketing can no longer be understood solely as a promotional strategy; rather, it has developed into part of a digital influence ecosystem that brings together influencers, consumers, brands, platforms, algorithms, and technologies. Consequently, research frontiers in this field are increasingly situated at the intersection of technological transformation, digital commercialization, sustainability, and ethical and social issues.

This study confirms that perspectives such as source credibility, consumer engagement, trust, and purchase intention remain vital foundations for explaining influencer marketing effectiveness; however, technological advancements and the creator economy highlight the

need for more integrative perspectives. Future research could expand upon topics such as AI and virtual influencers, the creator economy, social commerce, sustainable influencer marketing, as well as transparency, privacy, and consumer protection. From a practical standpoint, these findings underscore the importance for marketers and policymakers to consider not only influencer effectiveness but also aspects of credibility, authenticity, transparency, social responsibility, and ethical technology use. Overall, this study provides a comprehensive map of the evolution of influencer marketing research while identifying future research directions that are increasingly multidisciplinary and technology-driven.

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DECLARATION OF INTEREST

The authors declare that they have no conflict of interest regarding the research, authorship, and publication of this article.

REFERENCES

- Allal-Chérif, O., Puertas, R., & Carracedo, P. (2024). Intelligent influencer marketing: how AI-powered virtual influencers outperform human influencers. *Technological Forecasting and Social Change*, 200(October 2023). <https://doi.org/10.1016/j.techfore.2023.123113222-243>.
- Audrezet, A., de Kerviler, G., & Guidry Moulard, J. (2020). Authenticity under threat: When social media influencers need to go beyond self-presentation. *Journal of Business Research*, 117(November 2017), 557–569. <https://doi.org/10.1016/j.jbusres.2018.07.008>
- Audrezet, A., Koles, B., Moulard, J. G., Ameen, N., & McKenna, B. (2025). Virtual influencers: Definition and future research directions. *Journal of Business Research*, 200(August). <https://doi.org/10.1016/j.jbusres.2025.115647>
- De Veirman, M., Cauberghe, V., & Hudders, L. (2017). Marketing through instagram influencers: The impact of number of followers and product divergence on brand attitude. *International Journal of Advertising*, 36(5), 798–828. <https://doi.org/10.1080/02650487.2017.1348035>
- Jia, W., Fu, L., & Dai, Y. (2024). Increasing Trust in Influencer Marketing: The Effects of Sponsorship Disclosure and Endorser Type. *Journal of Promotion Management*, 30(4), 615–638. <https://doi.org/10.1080/10496491.2023.2289925>
- Joshi, Y., Lim, W. M., Jagani, K., & Kumar, S. (2025). Social media influencer marketing: foundations, trends, and ways forward. In *Electronic Commerce Research* (Vol. 25, Issue 2). Springer US. <https://doi.org/10.1007/s10660-023-09719-z>

- Kim, D. Y., & Kim, H. Y. (2021). Trust me, trust me not: A nuanced view of influencer marketing on social media. *Journal of Business Research*, 134(May), 223–232. <https://doi.org/10.1016/j.jbusres.2021.05.024>
- Libai, B., Rosario, A. B., Beichert, M., Donkers, B., Haenlein, M., Hofstetter, R., Kannan, P. K., van der Lans, R., Lanz, A., Alice Li, H., Mayzlin, D., Muller, E., Shapira, D., Yang, J., & Zhang, L. (2025). Influencer marketing unlocked: Understanding the value chains driving the creator economy. *Journal of the Academy of Marketing Science*, 53(1), 4–28. <https://doi.org/10.1007/s11747-024-01073-2>
- Lou, C., & Yuan, S. (2019). Influencer Marketing: How Message Value and Credibility Affect Consumer Trust of Branded Content on Social Media. *Journal of Interactive Advertising*, 19(1), 58–73. <https://doi.org/10.1080/15252019.2018.1533501>
- Ooi, K. B., Lee, V. H., Hew, J. J., Leong, L. Y., Tan, G. W. H., & Lim, A. F. (2023). Social media influencers: An effective marketing approach? *Journal of Business Research*, 160(September 2021), 113773. <https://doi.org/10.1016/j.jbusres.2023.113773>
- Pradhan, B., Kishore, K., & Gokhale, N. (2023). Social media influencers and consumer engagement: A review and future research agenda. *International Journal of Consumer Studies*, 47(6), 2106–2130. <https://doi.org/10.1111/ijcs.12901>
- van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, 84(2), 523–538. <https://doi.org/10.1007/s11192-009-0146-3>
- Zupic, I., & Čater, T. (2015). Bibliometric Methods in Management and Organization. *Organizational Research Methods*, 18(3), 429–472. <https://doi.org/10.1177/1094428114562629>