A Bibliometric Analysis of Content Marketing and Consumer Behavior in the Digital Age

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ABSTRACT

This study presents a comprehensive bibliometric analysis of academic literature at the intersection of content marketing and consumer behavior in the digital age. Using data retrieved from the Scopus database and analyzed through VOSviewer, the study explores the intellectual structure, thematic evolution, and global collaboration patterns shaping this interdisciplinary field. The analysis identified key contributors, influential publications, and dominant research clusters centered around marketing strategy, consumer engagement, digital platforms, and behavioral psychology. Temporal visualization revealed a thematic shift from traditional advertising and decision-making models toward recent emphases on artificial intelligence, sustainability, and social media marketing. The United States emerged as the most prolific and collaborative contributor, with increasing participation from countries in Asia and the Middle East. The findings offer valuable insights for scholars and practitioners seeking to navigate and contribute to the evolving discourse on digital consumer behavior and content-driven marketing strategies. This study also highlights future research directions, including ethical personalization, AI-driven engagement, and culturally adaptive marketing practices.

Keywords: *Content Marketing, Consumer Behavior, Digital Marketing, Bibliometric Analysis, VOSviewer.*

INTRODUCTION

The digital revolution has transformed the landscape of marketing, with content marketing emerging as a dominant strategy for engaging consumers. Unlike traditional marketing methods that rely heavily on overt advertising, content marketing focuses on creating and distributing valuable, relevant, and consistent content to attract and retain a clearly defined audience [1]. The rise of the internet and social media platforms has empowered consumers to be more informed, connected, and selective in their purchasing decisions. In this context, content marketing offers brands the opportunity to foster trust and long-term relationships with consumers by delivering information and experiences that genuinely interest them [2].

At the same time, the field of consumer behavior has undergone significant changes in response to the digital transformation. Traditional models that emphasized rational decision-making processes have given way to more complex frameworks that account for the dynamic, contextual, and emotional aspects of online consumer behavior [3]. The modern consumer is influenced not only by product features and price but also by online reviews, peer-generated content, and personalized digital experiences. These behavioral shifts have important implications for marketers seeking to optimize content strategies in the digital age. The intersection of content marketing and consumer behavior has thus become a vital area of inquiry for both academics and practitioners. As businesses strive to make sense of consumers' digital footprints and engagement patterns, researchers have responded by investigating how content type, format, platform, and timing affect consumer attitudes, intentions, and behaviors [4], [5]. With the proliferation of data analytics tools and

behavioral tracking technologies, the potential for evidence-based and consumer-centric content strategies is greater than ever.

Despite the growing body of research on content marketing and consumer behavior, the field remains fragmented, with studies dispersed across disciplines such as marketing, psychology, communication, and information systems. There is a need to synthesize existing knowledge to identify key trends, influential works, and potential gaps in the literature. Bibliometric analysis, which involves the quantitative evaluation of publications, authorship patterns, citation networks, and keyword trends, offers a rigorous method for mapping the intellectual structure of this emerging research domain [6].

In recent years, bibliometric methods have gained traction in marketing research due to their ability to objectively measure the evolution of scientific discourse. Through tools such as VOSviewer and Bibliometrix, researchers can visualize co-authorship networks, co-citation clusters, and keyword co-occurrence maps that reveal the thematic underpinnings of a research field. Applying these tools to the study of content marketing and consumer behavior can provide a comprehensive overview of the field's development, its most influential contributors, and the current research frontiers. This approach not only facilitates a deeper academic understanding but also informs strategic decision-making for marketers and brand managers. While the research on content marketing and digital consumer behavior has expanded rapidly, there remains a lack of consolidated knowledge regarding its intellectual evolution, thematic structure, and research gaps. Most reviews in this area are narrative or conceptual in nature, often limited by subjectivity and lacking methodological rigor. Consequently, scholars and practitioners lack a clear, data-driven map of the field's most influential contributions, evolving topics, and collaboration patterns. There is a pressing need for a bibliometric study that systematically analyzes the academic landscape of content marketing and consumer behavior to guide future research and practice in a rapidly evolving digital environment. This study aims to conduct a comprehensive bibliometric analysis of the academic literature at the intersection of content marketing and consumer behavior in the digital age.

METHOD

This study employed a bibliometric analysis to systematically explore the intellectual structure and thematic evolution of research on content marketing and consumer behavior in the digital age. Bibliometric analysis, as a quantitative method, is increasingly used in social science and marketing research to uncover publication trends, influential works, collaboration networks, and keyword dynamics [6]. This methodological approach enables researchers to objectively map and visualize the development of a research domain using citation, authorship, and content metadata from scholarly databases.

The data for this study were sourced from the Scopus database, which is widely recognized for its comprehensive coverage of peer-reviewed literature across disciplines. Scopus was chosen over other databases due to its broader inclusion of journals in marketing, communication, psychology, and business, all of which are highly relevant to the research theme. A search query was constructed using combinations of keywords such as "content marketing," "consumer behavior," "digital marketing," "online consumer," and "digital age." Boolean operators and field tags were applied to refine the search within titles, abstracts, and keywords. The search was limited to documents published between 2000 and 2024 to capture the evolution of the field in the digital era.

After retrieving the initial results, a screening process was conducted to ensure the inclusion of only relevant and high-quality publications. Documents such as conference proceedings, book chapters, and editorials were excluded unless they had substantial citations or relevance to the topic. The final dataset consisted of peer-reviewed journal articles written in English, which were then exported in BibTeX and CSV formats for analysis. Duplicate records and documents lacking sufficient bibliographic information were removed during data cleaning. The bibliographic data were exported from Scopus in the .RIS and .CSV formats, and then converted to the .txt format

compatible with VOSviewer using the built-in conversion tool. Before the analysis, the data were cleaned to remove duplicates and standardize author names, keywords, and journal titles. Manual correction was applied in some cases to unify variations in terms (e.g., "consumer behaviour" vs. "consumer behavior").

The analysis in this study was divided into three key components based on VOSviewer capabilities such as co-authorship analysis, citation analysis, and keyword co-occurrence analysis. The resulting bibliometric maps were interpreted both quantitatively and qualitatively. Clusters were analyzed based on their color-coded groupings, proximity of nodes, and density. Nodes represented entities such as keywords or authors, and the size of a node indicated its frequency or citation impact. The thickness of the lines connecting nodes reflected the strength of co-authorship, co-citation, or co-occurrence. Interpretive analysis focused on identifying core research areas, isolated subthemes, and potential gaps in the literature.
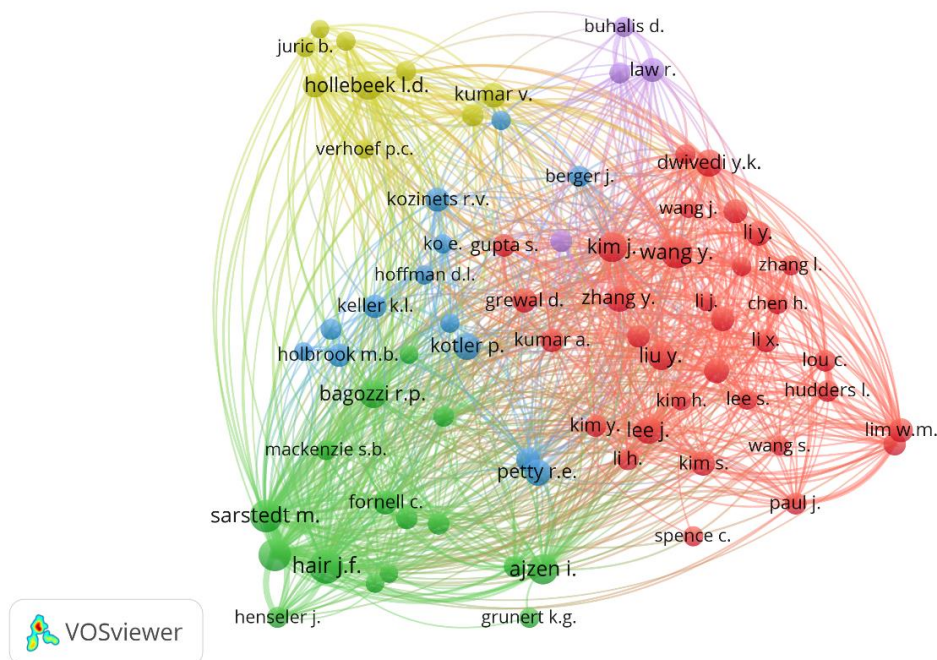
RESULT

Co-Authorship Analysis

Figure 1. Author Visualization
Source: Data Analysis

The network visualization illustrates the intellectual structure of the field of content marketing and consumer behavior in the digital age. The network is composed of several distinct clusters, each represented by different colors, indicating thematic groupings based on frequently co-cited authors. The red cluster, which is the most densely connected, includes prominent scholars such as Lim W.M., Lou C., Lee S., and Liu Y., suggesting a strong concentration on digital consumer engagement and social media marketing. The green cluster, centered around authors like Hair J.F., Sarstedt M., and Fornell C., appears to represent foundational works on marketing analytics, structural equation modeling (SEM), and consumer behavior theory. The yellow cluster, including Hollebeek L.D. and Verhoef P.C., emphasizes customer experience, engagement, and value co-creation. The blue cluster features figures such as Kotler P., Keller K.L., and Bagozzi R.P., representing classical marketing theory and consumer psychology. Finally, the purple cluster, although smaller, includes Buhalis D. and Dwivedi Y.K., indicating contributions in the area of digital transformation and e-commerce.
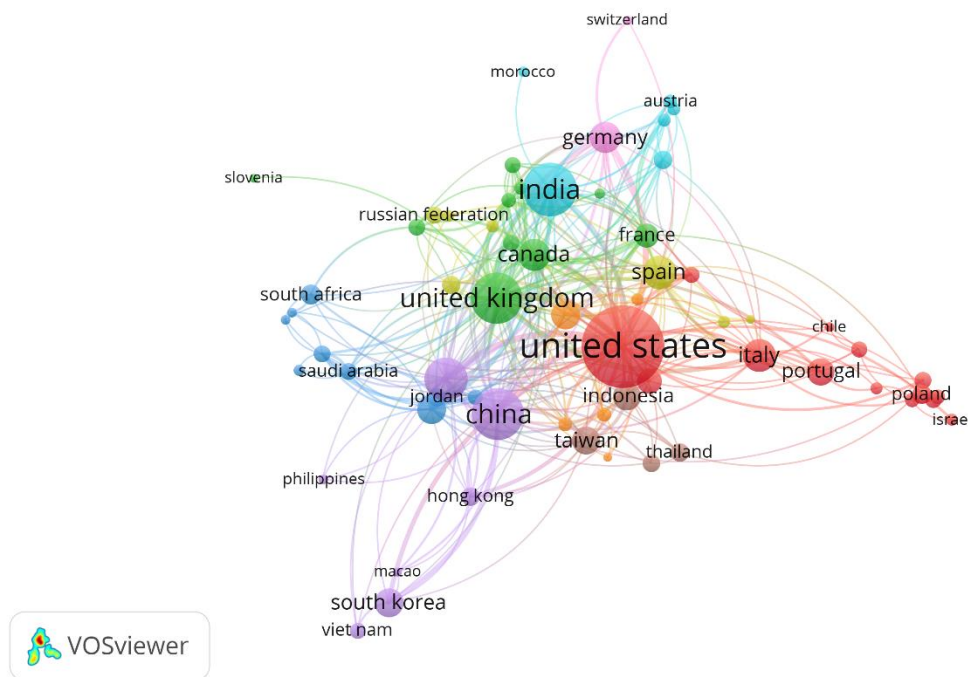
Figure 2. Country Visualization
Source: Data Analysis

The map highlights the global research collaboration patterns in the field of content marketing and consumer behavior. The United States emerges as the most central and influential contributor, as indicated by its large node size and dense network of links connecting it with almost all other countries. Closely linked are countries like the United Kingdom, India, China, and Germany, which serve as key regional research hubs. The blue and purple clusters show strong collaboration networks among countries from the Middle East and East Asia—such as Saudi Arabia, South Korea, China, Jordan, and Hong Kong—indicating rising scholarly contributions from these regions. The red cluster on the right represents European and Latin American countries like Poland, Portugal, Italy, and Chile, which exhibit moderate interconnectivity and growing relevance in the field.

Citation Analysis

Table 1. Most Cited Article

Citations	Author and Year	Title
1155	[7]	Setting the future of digital and social media marketing research: Perspectives and research propositions
1129	[8]	Social media brand community and consumer behavior: Quantifying the relative impact of user- and marketer-generated content
826	[9]	Virtual reality, presence, and attitude change: Empirical evidence from tourism
705	[10]	Emotions in consumer behavior: A hierarchical approach
673	[11]	Angry Customers don't Come Back, They Get Back: The Experience and Behavioral Implications of Anger and Dissatisfaction in Services
616	[12]	Consumer choice behavior in online and traditional supermarkets: The effects of brand name, price, and other search attributes
609	[13]	The impact of online store environment cues on purchase intention: Trust and perceived risk as a mediator

601	[14]	Online engagement factors on Facebook brand pages
554	[15]	Decision-making under uncertainty: Capturing dynamic brand choice processes in turbulent consumer goods markets
536	[16]	Social media engagement behaviour: a uses and gratifications perspective

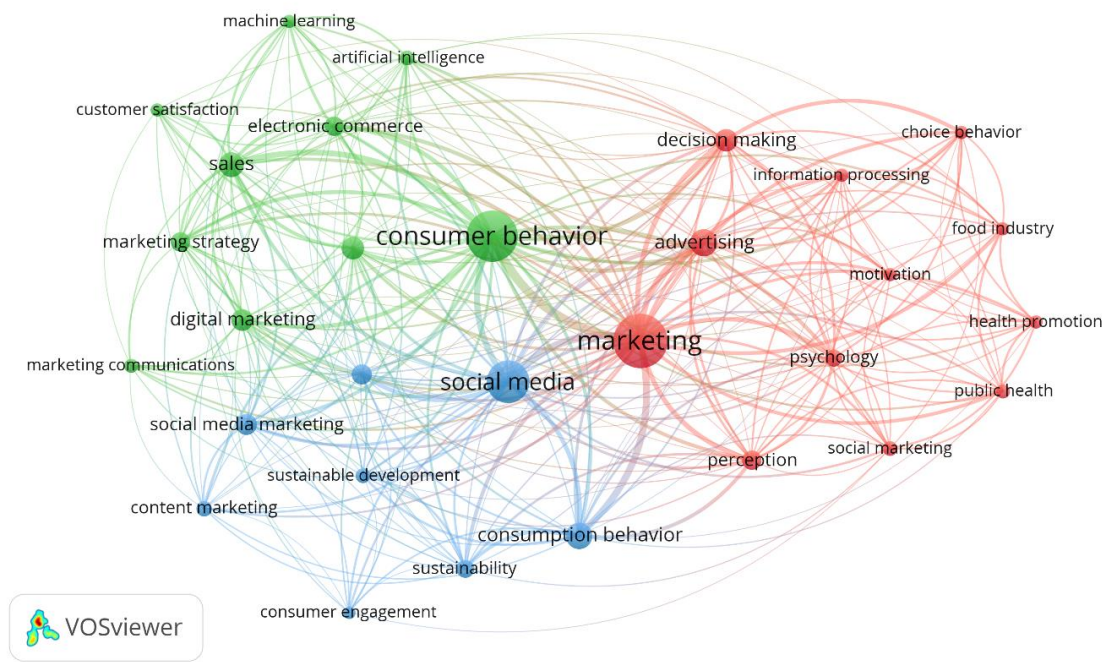Source: Scopus, 2025

Keywords Co-Occurrence Analysis

Figure 3. Network Visualization
Source: Data Analysis

The map reveals the thematic structure of research related to content marketing and consumer behavior in the digital age. The visualization is composed of multiple-colored clusters, each indicating a group of closely related research themes. The red cluster, centered on the keyword "marketing," includes terms such as advertising, psychology, decision making, motivation, and public health. This suggests a stream of research that explores the psychological and behavioral foundations of marketing, particularly in contexts like health promotion, perception, and information processing. The presence of keywords like social marketing and health promotion also implies interdisciplinary overlap with public health and social sciences. The green cluster, anchored by the term "consumer behavior," contains closely associated keywords such as digital marketing, marketing strategy, sales, customer satisfaction, and electronic commerce. This cluster represents the core of research examining how digital technologies and marketing strategies influence consumer decisions and satisfaction. The presence of machine learning and artificial intelligence reflects a growing trend toward the integration of advanced technologies in predicting and analyzing consumer behavior, indicating a methodological shift in marketing analytics. Furthermore, keywords like marketing communications and marketing strategy highlight the managerial and strategic dimensions of the field.

The blue cluster is centered around the keyword "social media" and includes terms such as content marketing, consumer engagement, social media marketing, and sustainability. This thematic group reflects the contemporary focus on how brands utilize digital platforms to build relationships and communicate with consumers. The close association of content marketing and consumer engagement confirms the significance of storytelling and value-driven communication in the digital marketing ecosystem. The co-occurrence with sustainability and sustainable development also

suggests that researchers are increasingly interested in how social media and marketing practices contribute to sustainable consumer behavior and corporate responsibility. The interlinkages between clusters show a high degree of thematic integration. For instance, decision making and advertising from the red cluster are connected to consumer behavior in the green cluster, indicating a conceptual bridge between psychological theories and applied marketing strategies. Similarly, content marketing in the blue cluster connects with both consumer behavior and marketing strategy, reflecting its cross-cutting relevance.
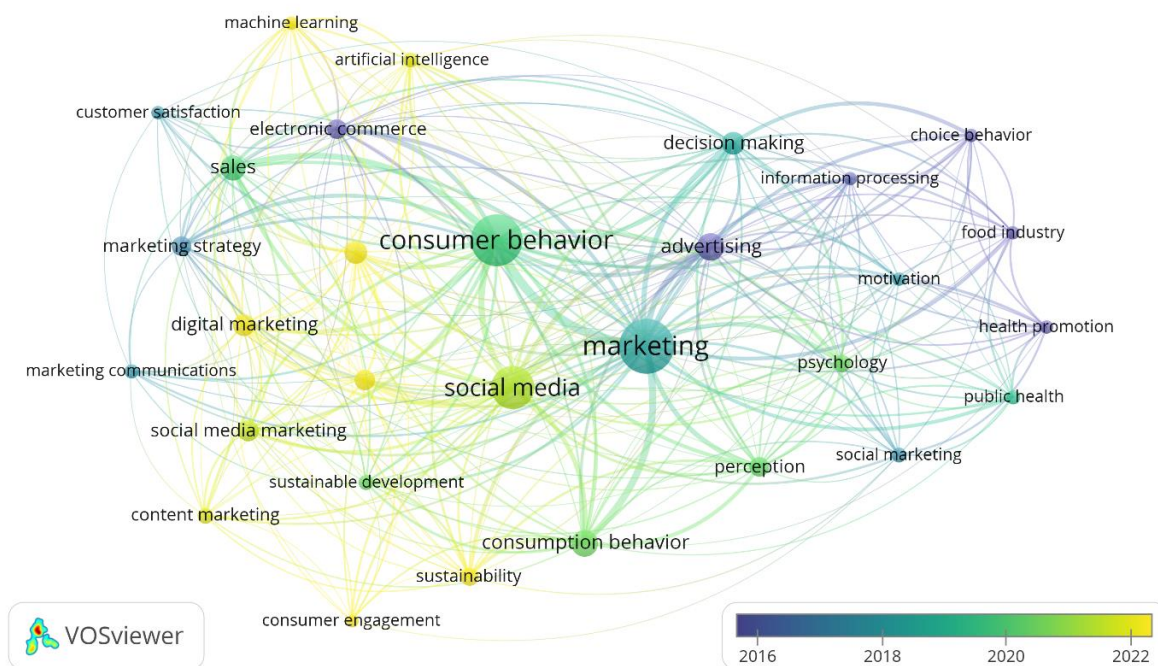

Figure 4. Overlay Visualization
Source: Data Analysis

The visualization map shows the temporal evolution of research themes in content marketing and consumer behavior, with node colors representing the average publication year for each keyword. The blue to purple hues, indicating earlier research (around 2016–2018), are concentrated around keywords such as advertising, psychology, decision making, motivation, and public health. This suggests that the early phase of scholarly attention was focused on the foundational behavioral and psychological aspects of marketing, particularly within contexts such as health promotion, information processing, and public sector marketing. These themes reflect a traditional view of consumer behavior influenced by decision science and communication theory.

In contrast, more recent research topics are represented in yellow and bright green, which correspond to years closer to 2020–2022. These newer themes cluster around keywords such as artificial intelligence, machine learning, content marketing, digital marketing, sustainability, and consumer engagement. This shift highlights the growing relevance of technological innovation and socially responsible marketing in the digital age. The emergence of artificial intelligence and machine learning indicates the application of advanced data analytics in understanding and predicting consumer behavior, while keywords like sustainability and consumer engagement suggest a growing focus on ethical marketing and long-term relational strategies. Interestingly, some central themes such as marketing, consumer behavior, and social media occupy a neutral green color, signifying that these topics have maintained relevance consistently across the examined period. Their central position in the network and intermediate coloring indicate that they act as thematic bridges between older, foundational areas and newer, emerging ones.
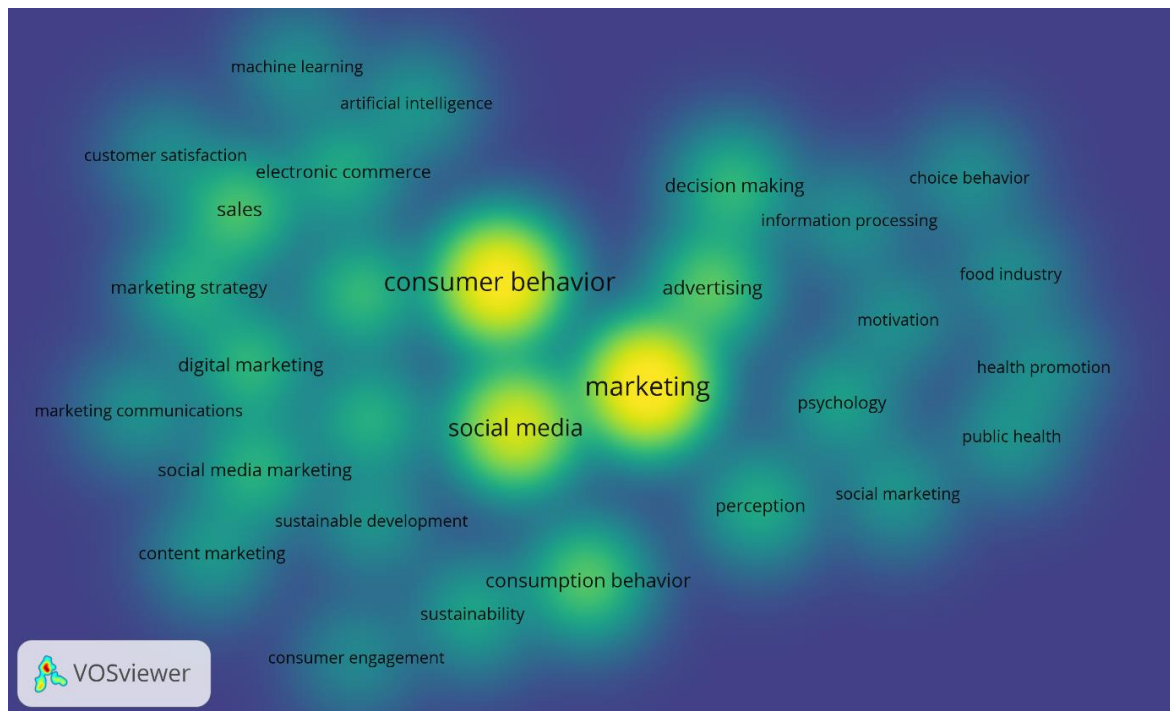
Figure 5. Density Visualization
Source: Data Analysis

The density visualization highlights the concentration and prominence of keywords in the literature related to content marketing and consumer behavior. The bright yellow zones, which represent areas of high keyword frequency and co-occurrence intensity, are centered around marketing, consumer behavior, and social media. This indicates that these three concepts form the core thematic foundation of the research domain, serving as central hubs in both theoretical development and empirical analysis. The proximity of advertising, decision making, and consumption behavior to these hubs suggests their strong contextual linkage and frequent co-discussion within scholarly publications. Surrounding the central core are green and blue areas representing lower keyword density and less frequent discussion, such as artificial intelligence, machine learning, sustainability, public health, and consumer engagement. While these topics are emerging and relevant, their peripheral position in the density map implies that they have not yet achieved the same level of centrality or citation impact. However, their visibility on the map indicates growing scholarly interest and potential for future development, particularly as digital technologies and sustainability considerations increasingly shape the future of consumer marketing research.

DISCUSSION

Intellectual Structure and Key Contributors

The co-citation analysis revealed several influential clusters of scholars who shape the intellectual core of the field. The largest and most interconnected cluster featured prominent researchers such as Lim W.M., Lou C., Lee S., and Liu Y., indicating a strong body of work around digital marketing, consumer engagement, and social media-based behavioral research. This cluster, marked by red nodes in the network, reflects a growing interest in how online environments influence consumer decisions, particularly in response to branded content and platform interactivity. Other clusters reflect foundational contributions. For instance, Hair J.F., Sarstedt M., and Fornell C. emerged as central figures in the green cluster, which is closely associated with methodological rigor particularly the use of Structural Equation Modeling (SEM) in consumer research. Similarly, authors such as Kotler P., Keller K.L., and Bagozzi R.P. in the blue cluster are recognized for shaping classical theories of marketing and consumer behavior, providing the theoretical grounding upon which

newer studies build. These clusters collectively illustrate the field's interdisciplinary nature, combining traditional consumer psychology with data-driven digital marketing approaches. The network structure also reveals a high degree of inter-cluster connectivity, suggesting that the field is not fragmented but rather integrated, with methodological and conceptual overlaps among subdomains. This reinforces the idea that modern content marketing and consumer behavior research is inherently hybrid.

Geographic Patterns and Global Collaboration

The country co-authorship map further illuminates the international scope and collaborative nature of the field. The United States dominates both in publication volume and collaborative ties, acting as the central hub of global research activity. Countries like the United Kingdom, India, China, and Germany also emerge as key contributors, indicating regional research clusters with both independent output and cross-border partnerships. Interestingly, the visualization indicates strong collaboration networks between emerging economies and traditional research powerhouses. Nations such as Indonesia, Saudi Arabia, and South Korea are increasingly integrated into international research efforts, reflecting the globalization of digital marketing scholarship. The rise of research contributions from Asia and the Middle East aligns with the region's growing consumer markets and digital transformation initiatives, suggesting that future content marketing strategies will likely draw on culturally diverse behavioral insights. These findings underscore the importance of fostering cross-national collaborations to address culturally specific aspects of consumer behavior while maintaining generalizability across markets. They also highlight opportunities for underrepresented regions to contribute novel insights into localized consumer engagement models, especially in the context of mobile and social media platforms.

Thematic Evolution and Emerging Trends

The keyword co-occurrence analysis uncovers three dominant thematic clusters. The first, centered around "marketing," is heavily grounded in psychological constructs such as decision-making, perception, and motivation. This reflects a longstanding tradition in consumer research that emphasizes individual-level cognition and behavioral responses to marketing stimuli. These keywords also co-occur with "advertising," "public health," and "social marketing," indicating a thematic extension into behavioral change and prosocial domains such as health promotion and sustainable consumption. The second cluster, organized around "consumer behavior," is more strategic and data-driven. Keywords like "marketing strategy," "sales," "digital marketing," "artificial intelligence," and "customer satisfaction" point to an increasing focus on performance metrics, technology integration, and predictive analytics. This aligns with the contemporary emphasis on using big data and AI to tailor content and predict consumer preferences in real time. The third cluster, with "social media" at its core, emphasizes communication channels and content formats, featuring terms such as "content marketing," "social media marketing," "consumer engagement," and "sustainable development." This theme reflects a shift in research from push-based promotional strategies to pull-based, relationship-oriented engagement approaches. The inclusion of "sustainability" and "development" suggests that social media is being studied not only for its commercial potential but also for its role in shaping ethical consumption and corporate social responsibility narratives. These clusters demonstrate a conceptual convergence around the idea that modern consumer behavior is shaped by dynamic, interactive, and often value-driven content experiences across digital platforms. The evolution from product-centric to consumer-centric to engagement-centric paradigms mirrors broader shifts in marketing theory and practice over the last two decades.

Temporal Trends and Research Frontiers

The overlay visualization highlights how the field has evolved over time. Earlier research (2016–2018) was anchored in psychological theory, focusing on constructs such as advertising, decision making, and public health. These themes represented the foundational building blocks of consumer behavior studies. As the field matured, the focus shifted toward digital tools and ethical dimensions. Recent studies (2020–2022), as indicated by bright yellow nodes, concentrate on artificial

intelligence, machine learning, content marketing, and sustainability. These developments reflect the field's responsiveness to global technological and societal changes. AI and machine learning are enabling highly personalized and data-informed marketing strategies, while sustainability has become a key concern for consumers and brands alike. These trends suggest that future research will likely deepen its focus on tech-enhanced personalization, algorithmic consumer behavior, ethics in AI-driven marketing, and consumer trust in digital ecosystems. Additionally, there is a growing imperative to investigate how consumers interpret and evaluate branded content within hybrid media environments, particularly under the influence of influencer marketing, short-form video, and immersive technologies like AR/VR.

Practical Implications and Future Directions

The findings of this study have several practical implications. First, marketers should recognize that successful content strategies must balance data-driven personalization with emotional resonance and authenticity. As consumer behavior becomes increasingly nuanced and context-dependent, strategies rooted solely in traditional persuasion or mass communication are likely to underperform. Second, firms must invest in cross-functional teams that integrate data scientists, content creators, and consumer psychologists to develop agile and responsive marketing campaigns. The growing role of AI in content curation and targeting suggests that technical expertise is now as critical as creativity in the content marketing mix. Third, the emphasis on sustainability and ethics highlights the need for marketers to align with consumer values and contribute to broader societal goals. Brand narratives that foreground environmental and social responsibility are more likely to foster trust and long-term loyalty, especially among younger digital-native audiences. On the research side, scholars should consider employing more longitudinal designs, cross-cultural comparisons, and real-time analytics to capture the fast-changing dynamics of digital consumer behavior. Moreover, there is an opportunity to explore understudied regions and emerging platforms, as most of the literature still centers on Western contexts and mainstream platforms like Facebook and Instagram.

CONCLUSION

This bibliometric study provides a comprehensive mapping of the academic landscape at the intersection of content marketing and consumer behavior in the digital age. By leveraging VOSviewer for co-citation, co-authorship, and keyword analyses, the research identifies core contributors, dominant themes, global collaboration patterns, and emerging trends. The findings reveal a field that is both theoretically grounded and dynamically evolving, shifting from traditional marketing and psychological frameworks toward data-driven, technology-integrated, and socially conscious approaches. Key research themes such as consumer engagement, artificial intelligence, sustainability, and social media marketing have gained prominence in recent years, signaling future directions for scholarly inquiry and practical application. As the digital environment continues to reshape how consumers interact with content, this study offers a valuable foundation for researchers, marketers, and policymakers to understand, anticipate, and innovate within this rapidly expanding field.

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