

# A Bibliometric Study on Social Commerce & Direct Shopping

Loso Judijanto  
IPOSS Jakarta, Indonesia

## Article Info

### Article history:

Received Nov, 2025  
Revised Nov, 2025  
Accepted Nov, 2025

### Keywords:

Social Commerce  
Online Shopping Behavior  
Live Streaming Commerce  
Digital Consumer Psychology  
Bibliometric Analysis

## ABSTRACT

This study provides a comprehensive bibliometric analysis of 1,226 Scopus-indexed publications on social commerce, direct shopping, digital consumer behavior, and Fear of Missing Out (FoMO) between 2005 and 2025. Using Bibliometrix (R) and VOSviewer, the research maps the intellectual development of the field through co-authorship, co-citation, keyword co-occurrence, and international collaboration networks. The findings reveal that electronic commerce and online shopping remain the conceptual core of the literature, while emerging themes include live streaming commerce, chatbot-assisted shopping, augmented reality, impulsive buying, and social presence. China, the United States, and India are the most influential contributors, reflecting global academic engagement with digital consumption trends. Citation analysis shows that studies on live streaming trust formation, chatbot adoption, autonomous delivery robots, and m-commerce drive the field's recent evolution. The results highlight a clear shift from early research focused on website quality and online trust toward interactive, technology-driven, and psychologically informed models of consumer behavior. This study contributes to a deeper understanding of how digital technologies and socio-psychological mechanisms shape contemporary shopping practices and provides direction for future research in immersive and socially embedded digital commerce ecosystems.

*This is an open access article under the [CC BY-SA](#) license.*



## Corresponding Author:

Name: Loso Judijanto  
Institution: IPOSS Jakarta, Indonesia  
Email: [losojudijantobumn@gmail.com](mailto:losojudijantobumn@gmail.com)

## 1. INTRODUCTION

The rapid evolution of digital technologies over the last two decades has profoundly transformed how individuals interact, communicate, and engage in commercial activities. Social media platforms, once primarily designed for interpersonal connection, have expanded into multifunctional digital ecosystems that facilitate social presence, entertainment, identity construction, and real-time consumer engagement [1], [2]. As these platforms

continue to integrate advanced interaction tools—such as live streaming, influencer-based marketing, chat-assisted shopping, and algorithmic personalization social commerce has emerged as one of the most dynamic forms of digital economic activity. Users are no longer passive observers; they actively participate in product discovery, peer recommendation, and direct purchasing behaviors embedded within social networks [3], [4]. This shift underscores the increasing importance of understanding how digital

environments shape buying decisions, trust formation, and perceived value in online marketplaces.

At the same time, the rise of direct shopping features—such as live commerce, in-platform checkout, and integrated seller–consumer interactions—has reshaped customer journeys from search to purchase. The immediacy and interactivity of these technologies have intensified consumer experiences, often driven by emotional, social, and cognitive triggers embedded within digital platforms [5], [6]. Among these triggers, Fear of Missing Out (FoMO) has gained significant scholarly attention as a psychological factor influencing user engagement, impulsive buying, and heightened platform dependency. FoMO is strongly associated with digital anxiety, social comparison, and persistent connectivity, making it a crucial lens for explaining behavioral tendencies in fast-paced online consumption settings. Although originally conceptualized as a psychological construct, FoMO has evolved to influence diverse domains including digital mental health, smartphone addiction, online purchasing patterns, and real-time decision-making within social commerce ecosystems [7], [8].

Given the global expansion of social commerce and its increasing integration into everyday digital life, academic interest in this field has grown exponentially. Researchers across psychology, marketing, communication studies, and information systems have investigated multiple dimensions—ranging from consumer trust and engagement to social influence and technological adoption. Studies also highlight how live streaming sellers, AI-powered chatbots, augmented reality apps, and influencer networks contribute to shaping consumer behavior. The top-cited works in this domain—such as those by [5], [9]–[11] demonstrate the centrality of trust, interactivity, and experiential immersion in online shopping environments. These studies collectively indicate that social commerce is not only a technological phenomenon but also a behavioral, emotional, and relational one,

requiring interdisciplinary inquiry to understand its complexity.

The bibliometric landscape from 2005 to 2025 shows a significant diversification in themes and intellectual trajectories. Early research tended to focus on online shopping adoption and consumer trust in web-based retail environments. As digital platforms matured, attention shifted toward mobile commerce, social norms, playfulness, live streaming, and augmented reality shopping. More recent scholarship highlights digital mental health concerns—including anxiety, stress, and FoMO as critical components shaping engagement patterns in social commerce ecosystems. The integration of psychological constructs within commerce research reveals a broader scholarly shift recognizing that digital consumption is deeply intertwined with emotional and cognitive processes. This aligns with global trends where digital well-being has become a consequential topic in both academic discourse and public policy.

Despite the growing body of literature, a comprehensive overview of how research on FoMO, social commerce, and digital mental health has evolved over time remains limited, as previous studies often address specific topics such as trust, technology adoption, or mental well-being without providing an integrated mapping of the intellectual structure of this rapidly expanding field. The interdisciplinary nature of these topics further underscores the need for a systematic understanding of publication trends, influential authors, collaborative networks, and thematic clusters. A bibliometric approach offers a rigorous means to capture these dynamics by examining citation patterns, co-authorship networks, co-occurring keywords, and knowledge structures within the literature, enabling scholars to identify dominant themes, emerging topics, research gaps, and opportunities for future inquiry. Accordingly, this study conducts an extensive bibliometric analysis of 1,226 Scopus-indexed publications from 2005 to 2025 using Bibliometrix (R) and VOSviewer to map intellectual developments surrounding Fear of Missing Out (FoMO),

social commerce, direct shopping, and digital mental health. Through multidimensional visualizations—including network, overlay, and density maps the study provides nuanced insights into the evolution of thematic clusters and collaborative relationships. By exploring these patterns, this research synthesizes existing knowledge and highlights frontier areas that warrant deeper exploration, ultimately establishing a strong foundation for scholars, practitioners, and policymakers seeking to understand the trajectory of digital consumer behavior and its psychological underpinnings across global contexts.

## 2. METHODS

### 2.1 Design

This study employed a quantitative bibliometric research design to systematically map the intellectual structure, thematic evolution, and collaborative patterns within international literature on Fear of Missing Out (FoMO), social commerce, direct shopping, and digital mental health published from 2005 to 2025. Bibliometric analysis was selected because it provides an objective, reproducible, and data-driven approach to evaluating large bodies of scholarly work across extended time periods. By examining citation structures, keyword patterns, and author collaboration networks, the method enables researchers to identify influential publications, emerging themes, and structural linkages that define the development of a research field.

### 2.2 Data Source and Retrieval Strategy

All bibliographic data used in this study were retrieved from the Scopus database, which was selected due to its comprehensive coverage of peer-reviewed journals, conference proceedings, and high-impact international publications. Using Scopus ensures the inclusion of multidisciplinary contributions relevant to psychology, communication studies, marketing, information systems, and digital mental health—fields that collectively shape the study of FoMO and social commerce. The search was conducted for the publication

period 2005–2025, aligning with the rise of mobile connectivity, social media platforms, and digital commerce systems.

A structured search query was formulated to capture variations of keywords related to Fear of Missing Out, social commerce, live shopping, digital mental health, and related constructs. Records that did not match the thematic scope or were incomplete (e.g., missing author keywords or bibliographic metadata) were screened and excluded to ensure accuracy and relevance. The final dataset consisted of 1,226 publications, representing the global academic discourse on FoMO and digital consumer behavior over two decades. This dataset served as the foundation for all subsequent bibliometric analyses, visualizations, and interpretations presented in this study.

### 2.3 Data Preparation and Software Tools

To analyze the retrieved Scopus data, this study utilized two complementary software tools—Bibliometrix (R package) and VOSviewer—where Bibliometrix was employed for data cleaning, descriptive bibliometric indicators, annual publication trends, citation analysis, and the construction of collaboration matrices, while VOSviewer was used to generate network visualizations such as co-authorship networks, co-citation maps, keyword co-occurrence clusters, as well as overlay and density visualizations, enabling high-resolution mapping of conceptual, intellectual, and social structures within the literature. Prior to analysis, the dataset was converted into standardized formats compatible with both platforms, with duplicate entries, incomplete records, and inconsistent keyword variations carefully examined and cleaned; moreover, the standardization of author keywords—such as merging “FoMO,” “fear of missing out,” and “digital fear of missing out”—was performed to ensure accurate representation of network relationships in the final visual outputs.

## 2.4 Bibliometric Techniques and Analysis Procedures

The bibliometric analysis proceeded through several integrated stages, beginning with a descriptive analysis in which total publications, annual growth trends, top journals, prolific authors, institutional productivity, and citation metrics—including total citations, average citations per article, and the most influential documents—were computed to establish the foundational landscape of the field. This was followed by co-authorship analysis, where author collaboration networks were generated to identify leading scholars, research clusters, and international cooperation patterns, complemented by institutional and country-level collaboration maps corresponding to Figures 4, 5, and 6. The keyword co-occurrence analysis employed VOSviewer to produce a network of major research themes and frequently co-mentioned concepts, with clustering algorithms grouping keywords into thematic domains (Figure 1), overlay visualizations tracking temporal evolution (Figure 2), and density maps highlighting areas of concentrated scholarly focus (Figure 3). Co-citation analysis was then conducted to identify influential authors and foundational

studies shaping the theoretical underpinnings of FoMO, social commerce, and digital mental health, with further insights drawn from the top-cited works presented in Table 1. Finally, all visual outputs were synthesized to interpret core research streams, emerging topics, structural gaps, and intersections between psychological constructs—such as FoMO—and digital commerce phenomena like live streaming shopping and augmented reality, forming the integrated narrative presented in the Results and Discussion section.

## 2.5 Research Validity and Limitations of Method

While bibliometric methods provide strong analytical rigor, the analysis is inherently shaped by the scope and metadata of the Scopus database. Publications indexed only in other repositories (e.g., Web of Science, PubMed, or Google Scholar) were not included. Additionally, bibliometric tools rely on author-provided keywords, which may differ in terminology or spelling. Despite these limitations, the methodological design ensures a robust and comprehensive overview of global research patterns in FoMO and digital commerce from 2005 to 2025.

# 3. RESULTS AND DISCUSSION

## 3.1 Affiliation Collaboration Network

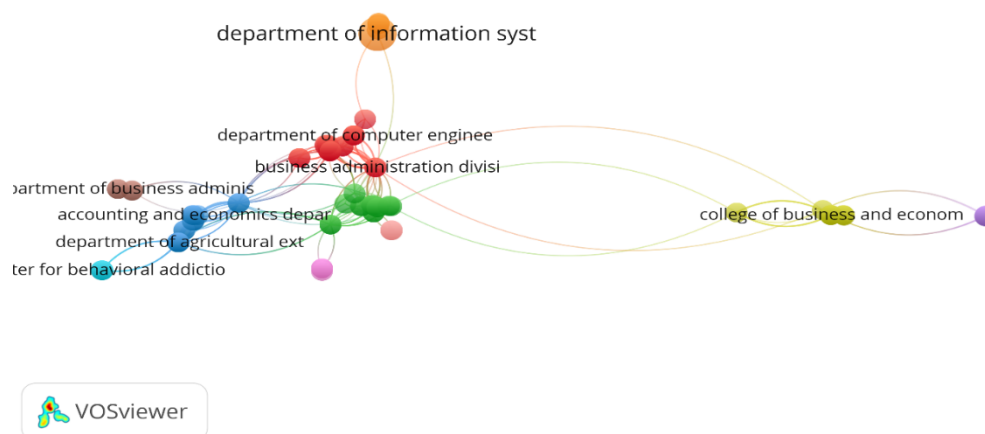


Figure 1. Affiliation Collaboration Visualization

Source: Data Analysis Result, 2025

Figure 1 presents the affiliation collaboration map, which reveals several institutional clusters that dominate research on social commerce and digital consumer behavior. The Department of Information Systems emerges as the largest and most central node, underscoring its strategic role in generating interdisciplinary studies that integrate technology adoption, online shopping behavior, and digital mental health. Its strong linkages with the Department of Computer Engineering and the Business Administration Division indicate a high degree of collaboration between technical and managerial disciplines, illustrating the hybrid nature of social commerce research where consumer psychology intersects with digital platform design. A second dense cluster comprises the Department of Business Administration, the Accounting and Economics Departments, and research centers focusing on behavioral addiction—institutions that typically investigate online trust, psychological constructs, shopping anxiety, and mobile commerce acceptance. Their close proximity suggests shared

analytical interests related to digital decision-making, consumer impulses, and the socio-economic implications of online shopping. Interestingly, the College of Business and Economics appears as a relatively isolated cluster, connected mainly through long-range collaborative ties. This pattern suggests that while business schools contribute meaningfully to the literature, their collaborations tend to be selective, often centered on empirical research examining consumer attitudes, behavioral intentions, and purchase experiences in emerging markets. Overall, the affiliation collaboration network highlights the inherently interdisciplinary nature of research on social commerce and FoMO, bringing together computing, business, behavioral science, and communication studies. This structure reinforces the understanding that digital consumption is a multifaceted phenomenon that requires diverse institutional expertise to comprehensively investigate its technological, behavioral, and socio-economic dimensions.

### 3.2 Author Collaboration Network

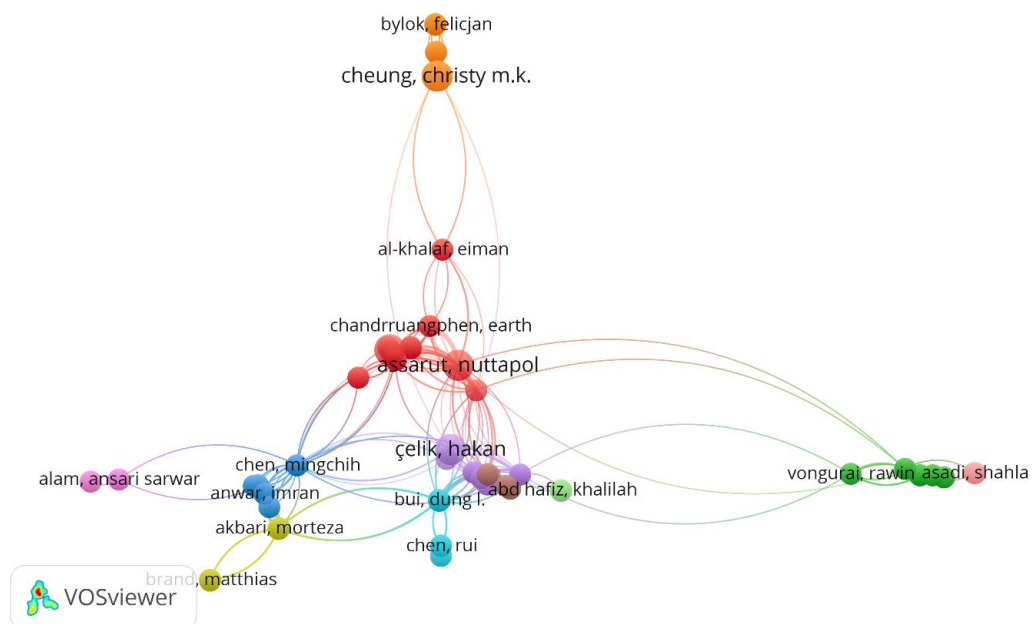


Figure 2. Author Collaboration Visualization

Source: Data Analysis, 2025

Figure 2 illustrates the author collaboration visualization, which highlights several prominent scholars and tightly interconnected research communities within the field of social commerce and digital consumer behavior. The most central node is Nuttapol Assarut, anchoring a major cluster of studies focused on social commerce, live streaming, and digital engagement behavior. His collaborations with researchers such as Chandrurungphen and Eiman Al-Khalaf reflect a strong network centered on trust formation, real-time interaction, and seller-buyer dynamics in online marketplaces. Another influential node is Christy M.K. Cheung, whose foundational works from 2006 and 2011 established core theories on online trust, informational social influence, and behavioral intention. Her prominent placement on the map indicates her enduring theoretical influence, with later researchers continuing to cite her work in studies related to live streaming commerce, chatbot adoption, and social norms. The map further showcases the increasing contribution of regional scholars, including Celik Hakan, Chen Mingchih, Imran Anwar, and Akbari Morteza, whose work on mobile commerce,

augmented reality, and online retail adoption enriches the diversity and cultural breadth of the field.

Additionally, collaborations such as those between Bui Dung and Chen Rui—focusing on technology acceptance and consumer satisfaction—expand the intellectual ecosystem represented in the network. The presence of smaller but distinct clusters, including the Ansari Sarwar Alam research group specializing in digital adoption within South Asia, underscores the growing geographical and thematic complexity of the field. Collectively, the author collaboration network demonstrates that contemporary social commerce scholarship is shaped by a blend of early foundational theorists and emerging regional contributors. These intersecting communities create a rich and multidimensional knowledge structure, offering diverse perspectives on how consumers interact with digital platforms, respond to technological innovations, and make purchasing decisions in increasingly immersive and socially embedded online environments.

### 3.3 Country Collaboration Network

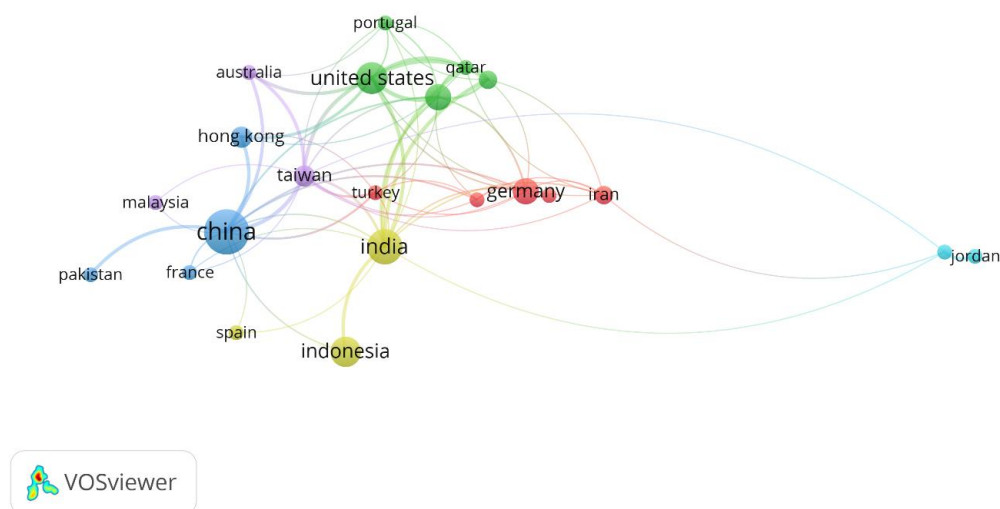


Figure 3. Country Collaboration Visualization

Source: Data Analysis, 2025



Figure 3 illustrates the country collaboration visualization, showing that China, the United States, and India are the most dominant contributors both in publication volume and in international research partnerships. China appears as the largest and most central node due to its extensive body of work on live commerce, digital platform ecosystems, mobile payment adoption, and consumer engagement behaviors. Its strong collaborative ties with Hong Kong, Malaysia, France, and Pakistan demonstrate active participation in both regional and cross-continental research efforts, particularly in fast-evolving Asian e-commerce markets. The United States forms another major hub, exhibiting extensive collaboration with Qatar, Portugal, Australia, and several East Asian countries. U.S.-based research tends to emphasize behavioral science, digital marketing, and human-computer interaction, contributing foundational theoretical perspectives to the field. India, meanwhile, plays a bridging role between Western and Asian scholarly communities, with collaborations involving Germany, Turkey, Indonesia, and China—

reflecting its growing influence in studies related to mobile commerce adoption and digital platform usage.

In addition to these major hubs, the map also highlights smaller yet meaningful clusters involving countries such as Jordan, Iran, and Germany. These nations contribute important empirical insights related to social influence, digital anxiety, and culturally specific online shopping behaviors, thereby enriching the diversity of global perspectives. The overall international collaboration pattern suggests that research on social commerce and digital consumer behavior has become increasingly globalized, characterized by the interplay between advanced economies that provide theoretical and methodological frameworks and emerging markets that offer contextually rich empirical settings. This global distribution underscores the maturity and multidimensionality of the field, demonstrating that digital consumption is both a technological and sociocultural phenomenon shaped by varied geographical experiences.

### 3.4 Keyword Co-Occurrence, Density, and Overlay Analyses

#### 1. Keyword Co-Occurrence Network

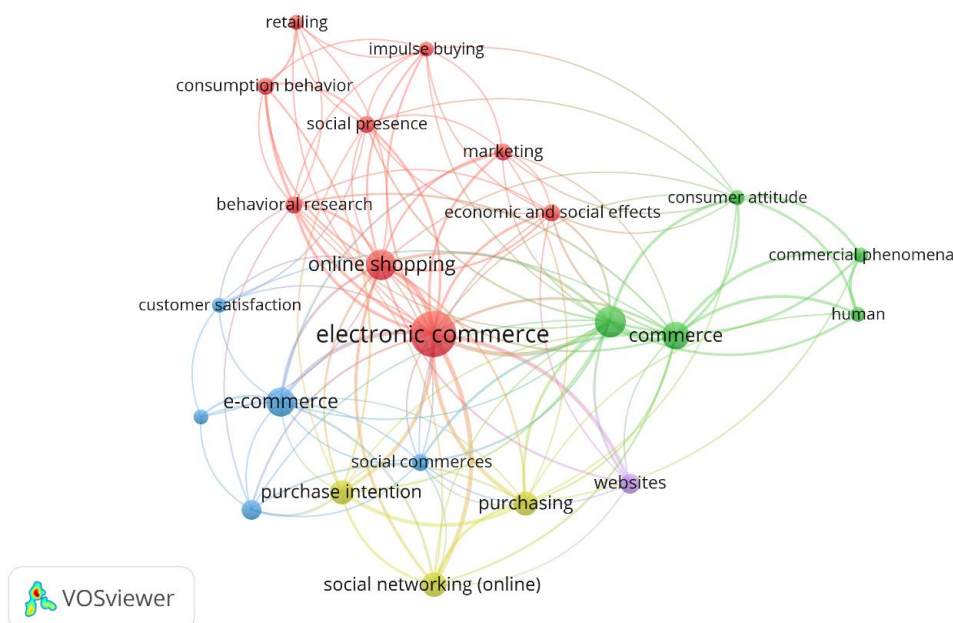


Figure 4. Network Visualization

Source: Data Analysis Result, 2025

Figure 4 provides a comprehensive network visualization of keyword co-occurrence, revealing the conceptual structure of research on social commerce, direct shopping, and digital consumer behavior. The most prominent and centrally positioned node is “electronic commerce,” which is closely linked to related terms such as online shopping, e-commerce, purchase intention, and websites. These associations demonstrate that early scholarship in the field was centered on understanding website-based shopping behavior, online trust, and consumer adoption models—foundational themes that established the theoretical basis for digital consumption before the development of more interactive and socially embedded commerce environments. Surrounding these core nodes are highly interconnected keywords such as social presence, consumer attitude, impulse buying, and consumer satisfaction, illustrating the interplay between technological features and behavioral drivers. Each node in the visualization represents a keyword, with link strength indicating co-occurrence frequency and colors highlighting distinct thematic clusters within the literature. The visualization further highlights several significant clusters that reflect the field’s evolution. One cluster—featuring keywords like social presence, impulse buying, behavioral research, and consumption behavior—signals a shift from transactional

understandings of online shopping toward deeper examinations of psychological mechanisms and emotional determinants of digital purchasing. This transition aligns with the rise of interactive environments such as live streaming commerce, real-time social networking, and AI-driven personalization, which shape impulsive, experiential, and socially influenced behaviors. Another notable cluster includes terms such as commerce, commercial phenomena, human, and consumer attitude, suggesting a growing interest in human-centered and socio-economic dimensions of digital markets, particularly in relation to emerging technologies like augmented reality, chatbots, and autonomous delivery systems. Additionally, the cluster containing social networking (online), social commerces, and purchasing highlights the increasing significance of social media ecosystems, where community influence, peer endorsement, and influencer participation significantly shape consumer decisions. Collectively, these interconnected clusters demonstrate that social commerce research is a multidimensional and multidisciplinary domain, with emerging themes such as impulse buying, social presence, and socio-economic impacts pointing toward fertile avenues for future inquiry.



## 2. Density Visualization

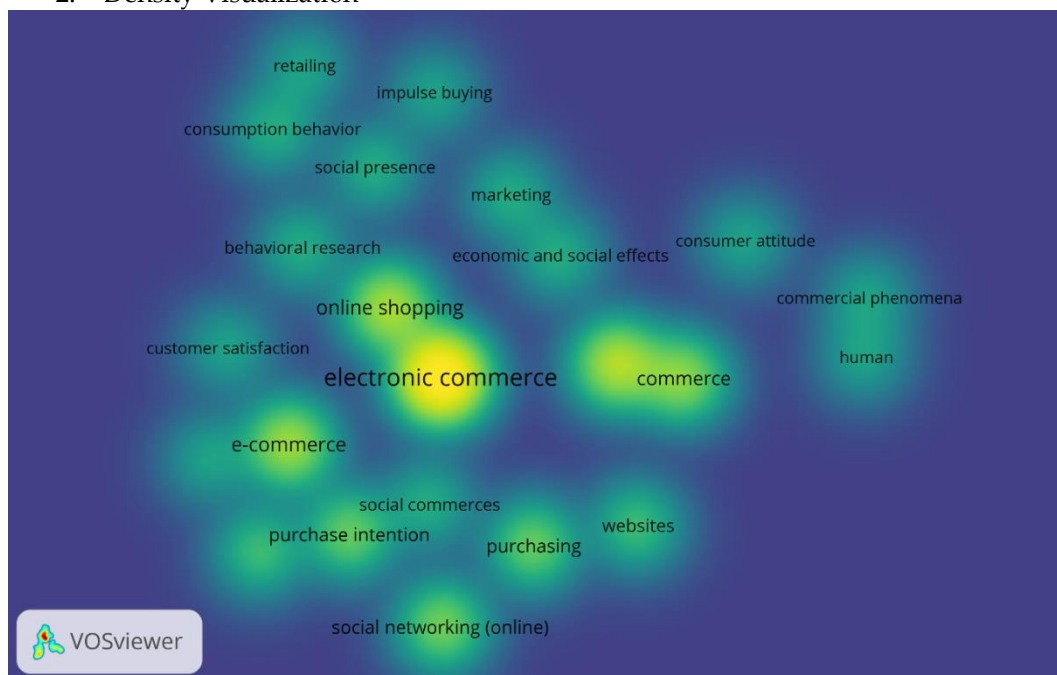


Figure 5. Density Visualization

Source: Data Analysis, 2025

Figure 5 presents the density visualization, which highlights concentrated hotspots around electronic commerce and online shopping, confirming these themes as the intellectual core of the field. High-density regions are also visible around consumer attitude, purchasing, and social commerce, indicating intensified scholarly interest in identifying the key factors that shape digital buying decisions. Meanwhile, peripheral yet

emerging themes—such as impulse buying, social presence, and behavioral research—suggest a growing emphasis on the psychological mechanisms underlying online consumption, reflecting a broader shift toward understanding how emotional, cognitive, and social dynamics influence consumer behavior in digital environments.

### 3. Overlay Visualization (Temporal Trends)

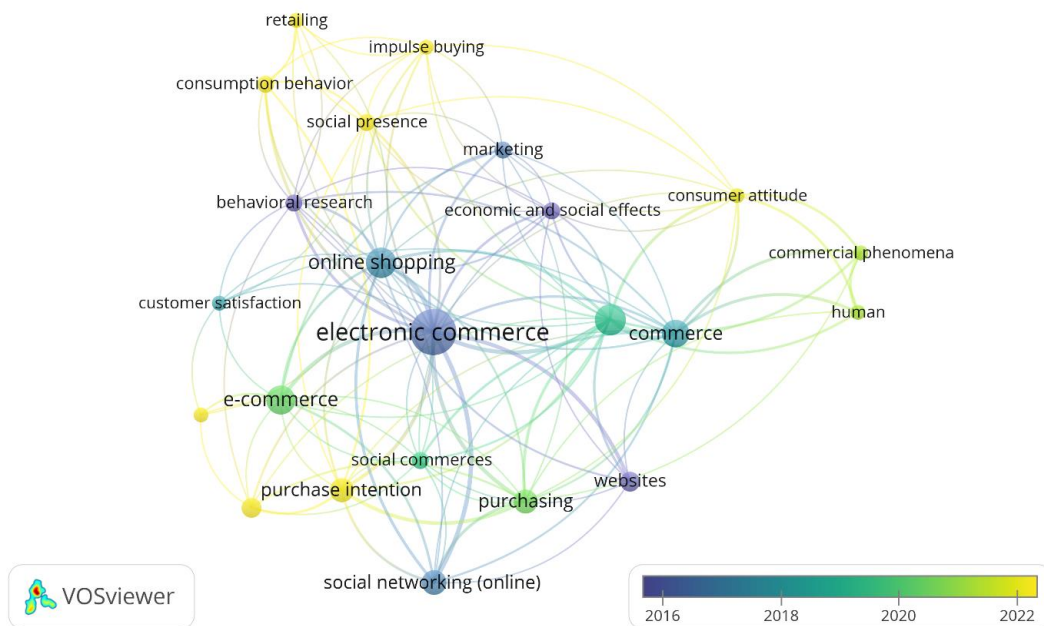


Figure 6. Overlay Visualization

Source: Data Analysis Result, 2025

The overlay map illustrates a clear evolution of research topics, showing a shift from early e-commerce studies toward more recent themes such as purchase intention, impulse buying, social commerce, consumer attitude, and social presence. Earlier works, represented in blue, predominantly examined websites, customer satisfaction, and human-computer interaction, while newer studies, shown in yellow and green, emphasize social network-driven shopping, real-time consumer engagement, and technology-assisted decision-making. This progression

reflects the growing influence of emerging digital features—including live streaming commerce, augmented reality, chatbots, and AI-driven recommendation systems—that increasingly shape and personalize consumer experiences in contemporary digital marketplaces.

#### 3.5 Citation Analysis: Top 10 Most Influential Publications

Ten highly cited studies were identified as core intellectual pillars of the field:

Table 1. Top Cited Research

Citations	Authors & Year	Title
961	Wongkitrungrueng & Assarut (2020)	The role of live streaming in building consumer trust and engagement with social commerce sellers
496	Kasilingam (2020)	Understanding the attitude and intention to use smartphone chatbots for shopping
421	Xu, Wu & Li (2020)	What drives consumer shopping behavior in live streaming commerce?
251	Lee et al. (2011)	Consumer's decision to shop online: Moderating role of positive informational social influence
211	Cheung & Lee (2006)	Understanding consumer trust in internet shopping
190	Pani et al. (2020)	Public acceptance of autonomous delivery robots during COVID-19
139	Çelik (2011)	Influence of social norms, perceived playfulness, and online shopping anxiety

130	Kalinic & Marinkovic (2016)	Determinants of intention to adopt m-commerce
91	Saprikis et al. (2021)	Adoption of mobile augmented reality apps in shopping malls
84	Bawack et al. (2023)	How social media live streams affect online buyers

Table 1 highlights the ten most cited studies in the field, illustrating the intellectual foundations and evolving priorities of research on social commerce and digital consumer behavior. Highly cited works by Wongkitrungrueng and Assarut (2020) and Xu, Wu, and Li (2020) underscore the dominance of live streaming commerce, where trust formation, interactivity, and parasocial engagement shape consumer responses. Technology-assisted shopping also emerges as a major theme, as reflected in studies on chatbots (Kasilingam 2020), mobile augmented reality apps (Saprikis et al. 2021), and autonomous delivery robots (Pani et al. 2020), indicating that automation and immersive digital tools significantly influence purchasing behavior. Foundational behavioral theories continue to exert strong influence, with Cheung and Lee (2006) and Lee et al. (2011) demonstrating that trust, perceived playfulness, and social influence remain central predictors of online shopping decisions. Mobile commerce has also matured as a subfield, as evidenced by Kalinic and Marinkovic (2016), whose work signals early attention to smartphone-based purchasing that has since evolved into integrated platform ecosystems. Collectively, these citation patterns reveal a broader shift from traditional e-commerce models toward more interactive, immersive, and socially driven forms of digital commerce.

### Discussion

The combined results reveal that research on social commerce and digital shopping behavior has undergone substantial transformation over the past two decades. Early scholarship concentrated on foundational elements such as trust, website quality, and online shopping intention, which were central to understanding consumer adoption in traditional e-commerce contexts. In contrast, contemporary studies increasingly emphasize live streaming commerce, social influence dynamics, mobile

commerce adoption, and technological augmentation through chatbots, augmented reality, and AI-driven recommendation systems. These developments coincide with a growing interest in psychological mechanisms—including Fear of Missing Out (FoMO), impulsivity, and emotional engagement—that shape consumers' real-time interactions and decision-making processes in digital environments.

This evolution underscores the global and interdisciplinary nature of the field, reflected in extensive collaboration across computer science, information systems, and business management, as well as strong cross-regional partnerships between Asian and Western research communities. Recent trends also indicate a heightened focus on immersive technologies that redefine consumer engagement and embed social interaction directly into purchasing experiences. Furthermore, the integration of behavioral psychology into commerce-related frameworks highlights that digital consumption today is influenced not only by technological infrastructure but also by emotional triggers, social presence, and algorithmic personalization. These insights collectively demonstrate that social commerce has matured into a multifaceted domain shaped by technological innovation, cultural diversity, and complex behavioral dynamics.

### 4. CONCLUSION

The bibliometric findings show that research on social commerce and direct shopping has evolved rapidly over the last two decades, shifting from traditional e-commerce concerns toward a far more complex ecosystem shaped by interactivity, personalization, and psychological engagement. The prominence of keywords such as electronic commerce, online shopping, purchase intention, and social presence demonstrates that consumer behavior remains at the core of scholarly

interest. At the same time, the rise of newer themes—such as live streaming platforms, chatbot-assisted shopping, augmented reality interfaces, and autonomous delivery technologies—reflects how technological innovation continues to reshape digital consumer experiences. Collaboration networks highlight China, the United States, and India as central global contributors that facilitate international partnerships and expand the empirical depth of the field, while author and institutional networks affirm the interdisciplinary character of social commerce research, drawing from information systems, marketing, psychology, and digital communication.

Citation patterns further reinforce these dynamics by showing that the most influential studies emphasize interactivity, trust formation, and emotional engagement within digital shopping environments.

Foundational contributions by Cheung, Lee, and their collaborators continue to anchor theoretical development, whereas more recent research on live streaming commerce and AI-enabled shopping tools marks a decisive shift toward immersive, real-time purchasing modalities. Collectively, these insights demonstrate that social commerce is no longer a peripheral extension of digital marketing; instead, it has become a central domain in global consumer behavior research, characterized by the integration of technological, behavioral, and social dimensions. Future research directions include deepening the understanding of psychological triggers such as Fear of Missing Out (FoMO), investigating cross-cultural variations in digital consumption, and evaluating the long-term societal implications of increasingly technology-mediated shopping ecosystems

## REFERENCES

- [1] M. Bala and D. Verma, "A Critical Review of Digital Marketing Paper Type: - Review and Viewpoint," *Int. J. Manag. IT Eng.*, vol. 8, no. 10, pp. 321–339, 2018.
- [2] R. Sholeh and K. Huda, "Pengaruh Kemajuan Teknologi Terhadap Volume Pejualan Ritel Di Kota Mojokerto," *Optima*, vol. 3, no. 1, 2019, doi: 10.33366/optima.v3i1.1253.
- [3] B. Sivathanu, "Enhancing the customer's experience in a digital world: An empirical study," *Int. J. Appl. Bus. Econ. Res.*, vol. 15, no. 22, pp. 487–495, 2017.
- [4] I. A. C. S. Mandasari and I. G. S. Pratama, "use of e-commerce during COVID-19 pandemic towards revenue and volume of MSMEs sales," *Int. Res. J. Manag. IT Soc. Sci.*, vol. 7, no. 6, pp. 124–130, 2020, doi: 10.21744/irjmis.v7n6.1022.
- [5] H. Luo, S. Cheng, W. Zhou, S. Yu, and X. Lin, "A study on the impact of linguistic persuasive styles on the sales volume of live streaming products in social e-commerce environment," *Mathematics*, vol. 9, no. 13, 2021, doi: 10.3390/math9131576.
- [6] R. W. Attar, M. Shanmugam, and N. Hajli, "Investigating the antecedents of e-commerce satisfaction in social commerce context," *Br. Food J.*, vol. 123, no. 3, pp. 849–868, Jan. 2021, doi: 10.1108/BFJ-08-2020-0755.
- [7] S. Tobon and J. García-Madariaga, "The influence of opinion leaders' ewom on online consumer decisions: A study on social influence," *J. Theor. Appl. Electron. Commer. Res.*, vol. 16, no. 4, pp. 748–767, 2021.
- [8] L. Qian, "Analysis of short video marketing strategy under the background of social e-commerce," ... *Conf. E-Commerce Internet Technol. ...*, 2021.
- [9] X. Shi, S. Chen, and X. Lai, "Blockchain adoption or contingent sourcing? Advancing food supply chain resilience in the post-pandemic era," *Front. Eng. Manag.*, vol. 10, no. 1, pp. 107–120, 2023, doi: 10.1007/s42524-022-0232-2.
- [10] J. Zanubiya, L. Meria, and M. A. D. Juliansah, "Increasing Consumers with Satisfaction Application based Digital Marketing Strategies," *Startupreneur Bus. Digit. (SABDA Journal)*, vol. 2, no. 1, pp. 12–21, 2023.
- [11] N. A. Al Hafizi and H. Ali, "Purchase Intention and Purchase Decision Model: Multi Channel Marketing and Discount on Medcom.Id Online News Portal," *Dinasti Int. J. Digit. Bus. Manag.*, vol. 2, no. 3, pp. 460–470, 2021, doi: 10.31933/dijdbm.v2i3.826.