

MAPPING CONSUMER BEHAVIOR IN E-COMMERCE: A BIBLIOMETRIC PERSPECTIVE

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Abstract

This study aims to provide a detailed analysis of academic literature on consumer behavior in e-commerce, specifically in business and management. Using the PRISMA framework, we conducted a systematic search in the Web of Science database covering the last 25 years. This resulted in a dataset of 629 documents. For the quantitative analysis and visualizations, we used tools like Biblioshiny and VOSviewer to chart research trends and academic networks.

The findings include lists of the most productive authors and their institutions, the top contributing countries, and keywords that show how the field has changed over time.

The results highlight key areas explored so far, such as online buying behavior, digital trust, and technology adoption. This study gives policymakers, academics, and practitioners a solid foundation to better understand consumer behavior in online marketplaces. This understanding can help inform strategic decisions that respond to changing digital trends and consumer needs.

Keywords: consumer behavior, e-commerce, bibliometric analysis, systematic review, PRISMA approach

JEL: D11, L81, M31

Introduction

In today's digital world, consumer behavior in e-commerce has become a major focus for researchers, marketers, and business professionals. Understanding how consumers make decisions online is crucial for effective marketing, platform development, and managing customer relationships. The rapid rise of digital platforms, mobile technology, and online retail has significantly changed how consumers engage with products and services (Dwivedi et al., 2021a). Lian & Yen, (2014) and Pantano et al., (2020) note that this shift has sparked strong academic interest in the various aspects of consumer behavior in online markets, especially concerning trust, privacy, personalization, and technology acceptance.

The growth of digital commerce has created new consumer touchpoints and decision-making processes. Organizations must therefore continuously adjust to fast-changing digital settings. To better understand consumer needs and preferences, businesses are increasingly relying on behavioral data and psychological insights to enhance online experiences (Giao et al., 2020; Shankar et al., 2016).

The scientific community has increased the number of studies examining the different factors that affect consumer behavior. These factors include cognitive and emotional responses, along with socio-cultural, psychological and technological influences (Jerab, 2025; Yadav et al., 2024).

Research on consumer behavior in e-commerce is inherently interdisciplinary, crossing the boundaries of marketing, psychology, information systems, economics, and behavioral sciences.

However, this multidimensional approach has led to a scattered knowledge base. Despite extensive research, a clear synthesis is still needed to pinpoint the main ideas and research trends in the

field. As digital markets keep evolving and consumer expectations shift, understanding the conceptual and methodological landscape becomes vital for guiding future research and practice (Chevalier & Mayzlin, 2006; Huang & Benyoucef, 2013).

This study seeks to fill this gap through a systematic bibliometric analysis of scholarly literature on consumer behavior in e-commerce published from 2000 to 2025. Bibliometric methods offer a quantitative look at a research field's development by examining publication patterns, co-authorship, keyword sharing, and citation networks (Donthu et al., 2021; Ellegaard & Wallin, 2015a). In this context, successful consumer-focused strategies require not just innovative technology but also a data-driven understanding of how consumers think, feel, and act online (Lemon & Verhoef, 2016).

There are three conceptual models that define scientists' approach to explaining the decision-making process on the Internet. First, the Technology Acceptance Model (TAM) emphasizes that perceived usefulness and perceived ease of use are the primary drivers of consumers' willingness to adopt online shopping platforms (Davis, 1989). Second, the Unified Theory of Acceptance and Use of Technology (UTAUT) extends this logic by incorporating social influence and facilitating conditions, offering a more holistic explanation of adoption behavior in digital environments (Venkatesh et al., 2003). Third, e-trust frameworks highlight the central role of trust, perceived risk, and reliability cues in shaping consumer confidence, particularly in contexts where transactions are intangible and uncertainty is high (McKnight et al., 2002).

To connect these perspectives, the following conceptual framework was developed. Digital adoption factors (TAM/UTAUT), trust-related perceptions (e-trust), and behavioral outcomes (such as purchase intention, satisfaction, and loyalty) function together as interlinked drivers of online consumer behavior. So, this integrated lens provides a theoretical baseline for interpreting publication trends, keyword clusters, and thematic structures that emerge in the bibliometric analysis.

Mapping how the field has developed will help highlight key themes, emerging trends, and gaps in the existing literature. The bibliometric study is guided by the following key questions:

- Q1 How have publication trends and leading journals in consumer behavior and e-commerce changed over the past 25 years?
- Q2 Which countries and academic institutions have made the most significant contributions to this field of research?
- Q3 What are the main clusters of keywords and thematic connections that shape the intellectual landscape?
- Q4 What insights can be gained from the conceptual structure to guide future research directions in consumer behavior in digital commerce?

Although several reviews have explored aspects of consumer behavior online, few studies systematically analyze the structural development of this field using bibliometric methods. By addressing this gap, the study aims to outline a research path, provide evidence-based conclusions, and suggest future research directions to advance the theory and practice of consumer behavior in online marketplaces (Zollo et al., 2020).

The rest of this paper describes the methodology, including data sources, software tools, and the criteria used for bibliometric analysis. It also presents the findings, including publication patterns, author and country collaborations, keyword clusters, and thematic evolution. Finally, it discusses the implications of the findings and offers recommendations for future research on consumer behavior in the ever-changing e-commerce landscape.

Materials and Methods

This study used a bibliometric analysis to explore and visualize the intellectual structure and thematic development of research on consumer behavior in e-commerce over a 25-year period, from 2000 to 2025. Bibliometric methods involve the quantitative analysis of academic publications to assess their impact, scholarly connections, and research dynamics. This approach helps identify key publications, authors, journals, and thematic patterns, uncovering the structure and growth of a research field (Broadus, 1987; Hood & Wilson, 2001). Compared to traditional literature reviews, bibliometric analysis offers a data-driven and systematic overview, promoting greater transparency, replicability, and objectivity (Ellegaard & Wallin, 2015b; Gusenbauer & Haddaway, 2020).

To carry out this analysis, the study employed two main software tools: Bibliometrix and VOSviewer. Bibliometrix is an open-source R package designed for bibliometric and scientometric studies. Developed by Aria & Cuccurullo, (2017), it allows detailed statistical and visual analyses of bibliographic data across various fields. Its user-friendly interface, Biblioshiny, which works within RStudio, made it easy to perform descriptive analytics, trend mapping, and co-citation analysis. Meanwhile, VOSviewer, designed by (Jan van Eck & Waltman, 2014), was used to create and visualize bibliometric networks like author collaboration, keyword co-occurrence, and citation relationships. VOSviewer's graphical mapping techniques helped identify research clusters and topic convergence over time. To ensure methodological rigor and reduce bias, the bibliometric analysis was guided by the Systematic Literature Review (SLR) framework.

The SLR process followed the PRISMA guidelines, which provide a structured and repeatable method for retrieving and selecting literature (Moher et al., 2009). This framework included four main stages:

- a) Identification, the initial set of documents was collected from the Web of Science Core Collection, known for its thorough indexing and high-quality metadata suitable for bibliometric analysis (Liu, 2017; Martín-Martín et al., 2018).
- b) Screening, all retrieved records were checked for duplicates and relevance. Titles and abstracts were reviewed to ensure they matched the research scope. Articles that did not directly address consumer behavior in digital commerce contexts were excluded.
- c) Eligibility, full-text documents were evaluated based on pre-defined criteria, including peer-reviewed journal status, thematic relevance, and publication date from 2000 to 2025. Only publications in English were included.
- d) Inclusion, studies that met the eligibility criteria were used for bibliometric synthesis. The final dataset represented a solid and diverse body of scholarly work, suitable for both qualitative and quantitative exploration.

The literature search in the Web of Science Core Collection was conducted on June 23, 2025 using the Boolean query $TS = ("consumer\ behavior" \text{ OR } "online\ consumer\ behavior") \text{ AND } ("e-commerce" \text{ OR } "electronic\ commerce" \text{ OR } "online\ shopping")$. This ensured consistency in search parameters and reproducibility. After the initial retrieval, a systematic filtering process was applied: duplicates were automatically removed using Web of Science's built-in tools, followed by manual verification, which resulted in the exclusion of 629 records. During the screening stage, titles and abstracts were examined for relevance, eliminating 99 studies that did not address consumer behavior in digital commerce. In the eligibility stage, full-text review led to the removal of 728 additional papers that failed to meet criteria such as empirical focus, peer-reviewed publication type, and alignment with the study timeframe. To ensure data quality, only English-language publications were included, a decision justified by the need for terminological consistency and accurate

keyword analysis in bibliometric mapping. Together, these steps ensured a clean, high-quality dataset and enhanced the reliability of the bibliometric results.

The PRISMA flow diagram, as shown in Figure 1, summarizes the article identification and selection process, providing visual clarity for reproducibility. In total, the final collection of studies allowed for a detailed analysis of the development of academic discourse around e-commerce consumer behavior. By combining SLR with bibliometric tools, the study ensured methodological rigor and a thorough exploration of intellectual contributions and thematic developments in the field.

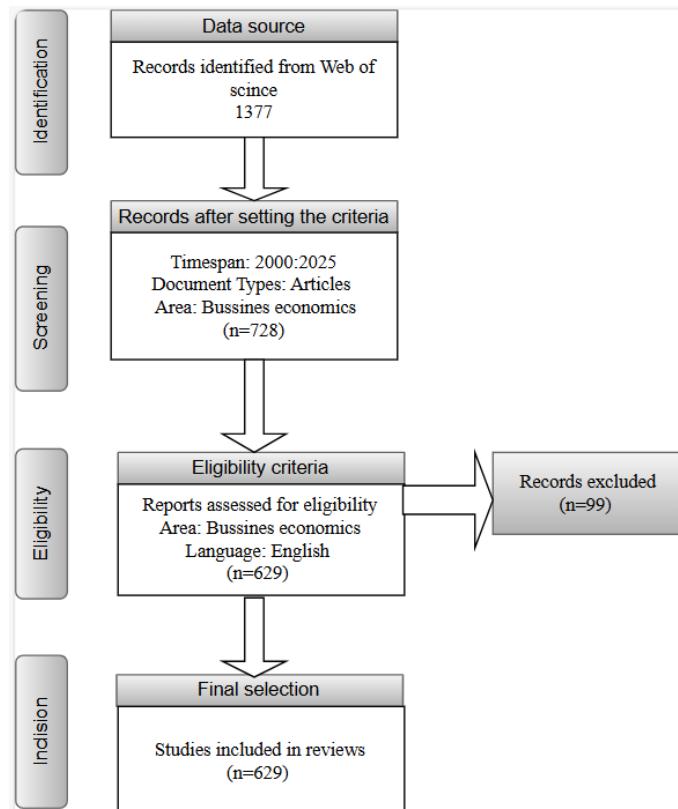


Figure 1. PRISMA review process

Source: author's own elaboration

Results and Discussion

Evolution of online consumer behavior research

Descriptive statistics obtained from the analysis of scientific literature on the topic of “online consumer behavior” are presented in Table 1. The dataset covers the years 2000 to 2025 and includes a total of 629 documents published in 188 different sources, such as academic journals, books, and other scholarly outlets. The literature has shown a significant increase over time, with an annual growth rate of about 15.08%. This indicates a steady and increasing interest in the field.

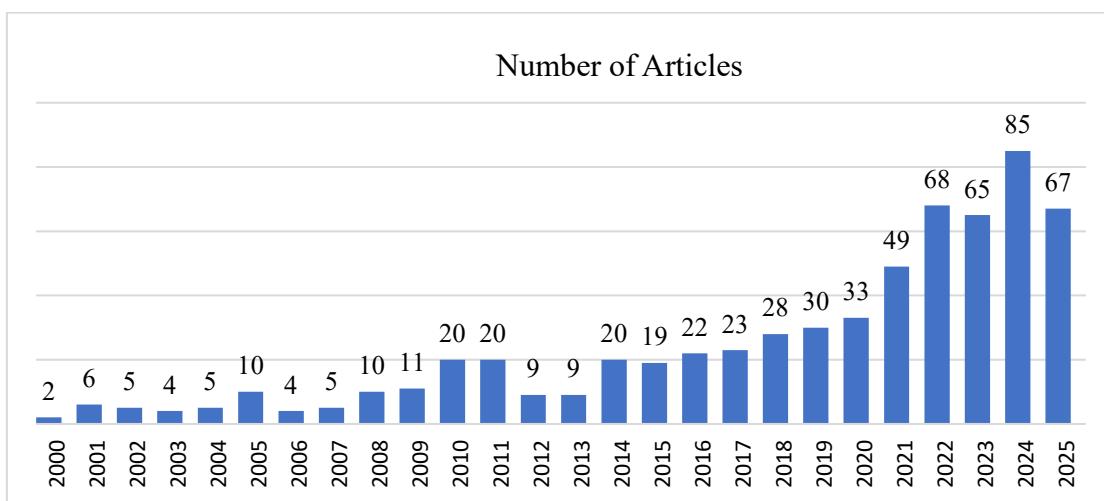
There were 1755 individual authors participating, demonstrating the diversity and dynamism of the research community in this field. All 629 documents in the dataset are classified as articles, emphasizing the prevalence of peer-reviewed journal publications in this field of study.

Table 1. Descriptive statistics of the dataset.

Main Information about Data	Results
Timespan	2000:2025
Sources (Journals, Books, etc.)	188
Documents	629
Annual Growth Rate %	15.08%
Authors	1755
Document Types	
Article	629

Source: author's own elaboration based on Biblioshiny

The growth in the number of published works from 2000 to 2025 is shown in Figure 2. There has been a steady rise in scholarly output during this time, with the annual growth rate indicating a growing interest in the field. This trend suggests that more researchers are getting involved with the topic, marking it as an area of expanding academic importance.

**Figure 2. Annual scientific production**

Source: author's own elaboration based on Biblioshiny

In the early years (2000 to 2006), the field was developing, with relatively few publications. For instance, in 2000, only 2 articles were published, and the annual output stayed below 10 articles for most of this time. This limited activity indicates that academic research on consumer behavior in online settings was just beginning, as the digital landscape itself was undergoing significant change.

Starting in 2007, research activity began to gradually increase, showing a growing awareness of the need to understand online consumer behavior. The number of published articles climbed from 5 in 2007 to 11 by 2009. Notably, in 2010, publication output doubled to 20 articles, marking a key moment when scholars began to examine how consumer behavior was changing with the rise of e-commerce platforms.

The time between 2011 and 2016 saw steady but moderate growth, with annual publications generally ranging from 9 to 22 articles. This trend indicates a broadening of the field in which, major theories and research directions are emerging.

A significant change happened from 2017 onward, indicating a distinct growth phase. Annual publications rose from 23 in 2017 to 49 in 2021. The increase continued, peaking at 85 articles in

2024, the highest number recorded during this entire period, before slightly dropping to 67 in 2025. This rise highlights the field's growing importance driven by rapid digitalization, the boom in online retail, and changes in consumer behavior reasoned by global events like the COVID-19 pandemic (Szász et al., 2022).

Relevant journals in the field

As demonstrated in Table 2, the top 10 journals have been found to have made a significant contribution to research on consumer behaviour in e-commerce. This is based on the number of published articles, total citations (TC), ABDC ratings, and Scimago journal rankings. Out of 629 articles published across 188 journals, about 30% (214 articles) appeared in these leading outlets. The Journal of Theoretical and Applied Electronic Commerce Research is in first place with 31 articles and a total of 505 citations. That shows consistent focus on both theoretical and empirical growth in e-commerce. Its ABDC rating is B, but it keeps a strong position with a Q1 ranking in the Scimago list, confirming its good reputation in the field.

Next, the Journal of Retailing and Consumer Services comes in second place with 30 articles and an impressive 1849 citations. Its ABDC A rating and Q1 Scimago ranking emphasize its quality and influence, especially given its broad coverage of topics that link consumer services, retail strategies, and digital commerce trends.

The Electronic Commerce Research and Applications journal is third, with 29 articles and 1593 citations. Although it has an ABDC C rating, its Q1 rank and significant total citations indicate its important role in sharing research on practical uses and technological progress in online markets.

Other notable journals include the Journal of Research in interactive marketing, which has 23 articles and 893 citations, and electronic commerce research, with 22 articles and 305 citations. Both hold Q1 Scimago rankings and examine how digital interactivity, personalization, and consumer engagement strategies influence purchasing behavior.

This distribution shows that research on consumer behavior in e-commerce is very focused in a few key journals, all of which are well-recognized in their fields. Their presence in the Q1 Scimago quartile further indicates their high visibility and influence in the academic community.

Table 2. Leading journals published between 2000 and 2025

Rating	Journal Name	No. of articles	TC	ABDC rating	Ranked by Scimago list
1	Journal of theoretical and applied electronic commerce research	31	505	B	Q1
2	Journal of retailing and consumer services	30	1849	A	Q1
3	Electronic commerce research and applications	29	1593	C	Q1
4	Journal of research in interactive marketing	23	893	B	Q1
5	Electronic commerce research	22	305	A	Q1
6	International journal of electronic commerce	20	4464	C	Q1
7	Asia Pacific journal of marketing and logistics	16	349	A	Q1
8	Journal Of Business Research	15	1409	C	Q1
9	Cogent Business \& Management	14	76	NR	Q2
10	Internet Research	14	945	A	Q1

Source: author's own elaboration based on Biblioshiny

The prominence of these top journals highlights the evolving and interdisciplinary nature of e-commerce research. By integrating insights from marketing, information systems, logistics, and interactive technologies, these journals continue to deepen our understanding of how consumers behave in digital marketplaces. This includes trust and security concerns, innovation-driven purchasing decisions, and sustainable online shopping practices.

The most significant affiliated institutions

As illustrated in Figure 3, the top 10 institutions have been identified as those which have made the most significant scientific contributions to the study of consumer behaviour in the field of e-commerce. From 2000 to 2025, the data reveals that Yonsei University leads with 18 published articles. This reflects its strong dedication to improving knowledge in digital consumer markets and online retail strategies. Southwestern University of Finance and Economics comes in second with 15 articles. This highlights its growing impact in examining how financial factors and economic conditions affect consumer choices in e-commerce. City University of Hong Kong takes third place with 12 contributions, showcasing its regional leadership in studying consumer behavior across various Asian markets.

Several other institutions, like Beihang University and University of Beira Interior, each published 10 articles, indicating their active roles in linking technological innovation to consumer research. Additionally, universities such as Middle Tennessee State University, Renmin University of China, Federal University of Minas Gerais, University of Presov, and Zhejiang University, each with 9 publications, demonstrate the global reach and collaborative effort that define this area of research.

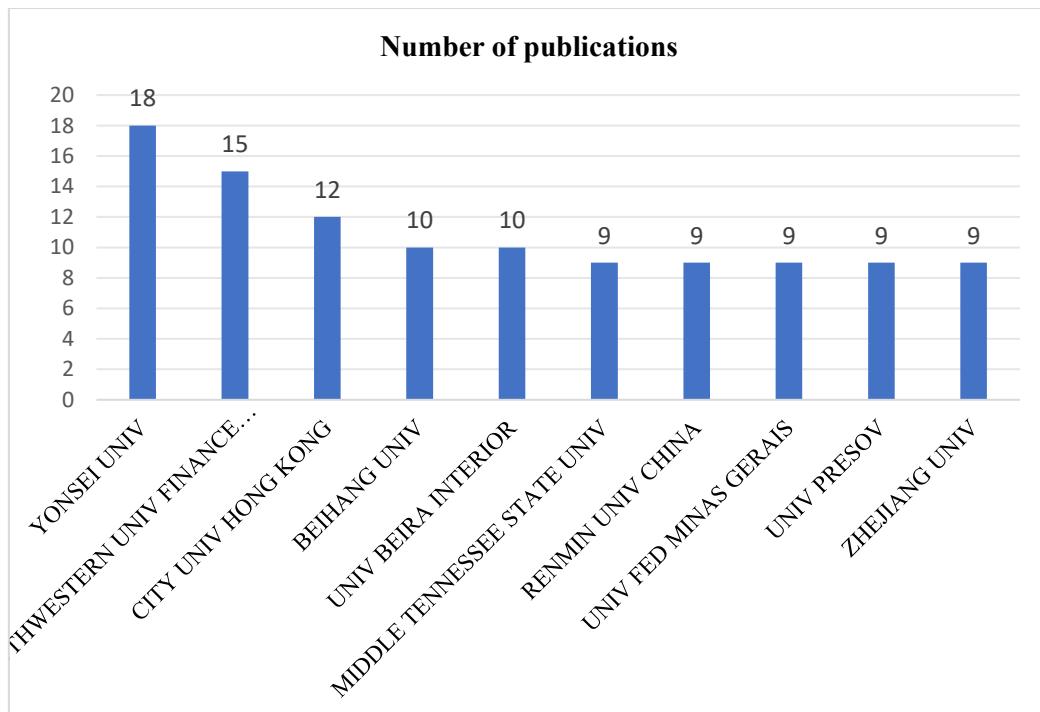


Figure 3. Top ten institutions by number of publications

Source: author's own elaboration based on RStudio

Top Authors in consumer behavior in e-commerce

Table 3 presents the productivity and scientific impact indicators of the top 10 authors who have written about consumer behavior in e-commerce. Their impact is measured by h-index, g-index, m-index, total citations (TC), number of publications (NP), and earliest year of publication (PY). In total, 1755 authors contributed to the 629 articles analyzed in this study, which highlights the growing interest and variety of contributions in the field.

Wang X is the most impactful author in this dataset, with the highest h-index of 7 and g-index of 10, backed by a total of 340 citations and ten published articles since 2016. Among Wang X's works, the article "*Building E-Commerce Satisfaction and Boosting Sales: The Role of Social Commerce Trust and Its Antecedents*," published in the International Journal of Electronic Commerce in 2019, has gained significant attention, with 163 citations. This illustrates the author's influence on trust and consumer satisfaction in social commerce.

Li Y, who ranks second, has an h-index of 5 and a strong m-index of 0.714. Since 2019, Li Y has published eight articles, gathering a total of 138 citations. Li Y's most cited work, "*Motivations for Selecting Cross-Border E-Commerce as a Foreign Market Entry Mode*," published in Industrial Marketing Management in 2020, has received 86 citations, showcasing the author's important input on the strategic factors in cross-border e-commerce.

Authors like Chen Y and Zhang X also have solid h-index scores of 4. They have contributed to important discussions about the adoption of electronic commerce and innovation. Even though they have fewer total publications, their work remains relevant in new research.

Table 3: Top 10 relevant authors, ordered by number of publications and total number of citations

Rank	Author	h_index	g_index	m_index	TC	NP	PY
1	Wang X	7	10	0,7	340	10	2016
2	Li Y	5	8	0,714	138	8	2019
3	Chen Y	4	4	0,364	201	4	2015
4	Zhang X	4	4	0,4	74	4	2016
5	Cheah Jh	3	3	0,5	94	3	2020
6	Chen L	3	3	0,2	37	3	2011
7	Dholakia Um	3	3	0,12	1504	3	2001
8	Lee Yj	3	3	0,2	73	3	2011
9	Liu Y	3	5	0,3	31	5	2016
10	Martinez Lf	3	5	0,6	131	5	2021

Source: author's own elaboration based on Biblioshiny

These authors demonstrate different publication patterns and citation impact, emphasizing how individual contributions shape the intellectual landscape of e-commerce research.

Geographical Research Contribution

A total of 629 articles included in the dataset were authored by 1755 researchers affiliated with 979 unique institutions spanning 67 countries, reflecting the diverse and interdisciplinary nature of scholarship on consumer behavior in e-commerce. This global reach emphasizes the growing academic and practical interest in understanding how consumers engage with digital marketplaces across different economic, cultural, and technological contexts.

The country-level analysis further reveals that research in this field is geographically concentrated yet increasingly collaborative. The United States stands as the leading contributor with 125 publications, accounting for the highest total citations (18267), indicating its continued dominance and influence in this research domain. China, the second largest contributor with 110 articles and 3,102 citations, demonstrates a strong trajectory of growth and a relatively high rate of international collaboration (32.7% MCP), positioning it as an emerging hub for impactful research in e-commerce consumer behavior.

According to the Table 4. European countries such as Germany, Portugal, and the Netherlands, along with Korea, Malaysia, India, Brazil, and Indonesia, also feature prominently among the top contributors. Notably, countries like Canada and Germany exhibit a high share of multiple-country publications (46.2% and 41.4% MCP respectively), suggesting that international co-authorship is an important driver of research quality and reach in this field.

Table 4. The top 10 countries ranked by the number of articles in the dataset

No	Country	Articles	SCP	MCP	MCP
1	USA	125	99	26	20,8
2	China	110	74	36	32,7
3	India	39	33	6	15,4
4	Germany	29	17	12	41,4
5	Korea	29	16	13	44,8
6	Malaysia	26	16	10	38,5
7	Brazil	18	15	3	16,7
8	Indonesia	18	16	2	11,1
9	Canada	13	7	6	46,2
10	Portugal	13	10	3	23,1

Source: author's own elaboration based on Biblioshiny

Table 5. The top ten countries in terms of total citations received (TC).

No	Country	TC
1	Usa	18267
2	China	3102
3	Germany	1358
4	Korea	1320
5	Malaysia	868
6	Australia	604
7	Netherlands	564
8	France	541
9	India	515
10	Portugal	508

Source: author's own elaboration based on Biblioshiny

The variety of authorship and institutional representation indicates that consumer behavior in e-commerce is an increasingly global topic and knowledge production is shaped by cross-border collaboration.

So, Western scholars typically relies on psychological and technology-oriented frameworks such as TAM and UTAUT, emphasizing individual decision-making, perceived usefulness, and ease of use (Davis, 1989; Venkatesh et al., 2003). In contrast, many Asian research contributions draw more heavily on socio-cultural and collectivist perspectives, highlighting the role of social norms, community influence, and relational trust in shaping online purchasing decisions (Hofstede, 2001; Kim, 2020a). Studies from East and Southeast Asia often emphasize the importance of social commerce, group conformity, and trust-building mechanisms rooted in cultural expectations, which differ from the more individualistic, autonomy-driven assumptions found in Western models (Hajli, 2015a). Recognizing these paradigmatic differences would enrich the interpretation of the bibliometric patterns by showing how regional academic traditions shape theoretical emphasis and research priorities in e-commerce consumer behavior.

Cooccurrence Analysis of Keywords

Keyword co-occurrence analysis is a vital tool in bibliometric studies. It helps uncover the structure and development of themes in a research area (Callon et al., 1983). By looking at how often keywords show up together in scholarly articles, researchers can identify hidden links, main topics, and new research groups (Zupic & Čater, 2015). Figure 4 shows the network structure of keyword co-occurrence for a dataset of 629 articles. This data was analyzed using VOSviewer and applied a minimum occurrence threshold of seven. This led to 228 relevant keywords that reveal the research landscape of e-commerce and consumer behavior.

According to Figure 4, the most significant terms on the network map are "e-commerce" and "consumer behaviour". So, they play a central role in shaping the research agenda in this area. These main concepts are closely linked with related keywords like "purchase intention," "social commerce," "information," "acceptance," and "word-of-mouth." This highlights the complex nature of consumer research in the digital age. The map shows several distinct clusters, each in a different color, which represent specialized but connected subfields.

The green cluster is related to themes such as "purchase intention," "quality," and "experience." This points to the processes that affect consumer decision-making and online purchase outcomes. The blue cluster focuses on "social commerce," "website design," and "brand trust," emphasizing how trust and usability influence online interaction. The red cluster includes keywords like "user acceptance," "perceived risk," and "privacy concerns." This shows the growing importance of security perceptions and technology use in online settings (Shareef et al., 2018). Meanwhile, the purple cluster connects terms such as "big data," "word-of-mouth," and "machine learning." This suggests a rising focus on data-driven strategies to understand consumer behavior (Patrick & Ilias, 2019).

Additionally, the presence of keywords like "COVID-19 adoption," "uncertainty," and "consumer trust" shows a major shift in research priorities due to the pandemic. Scholars are examining new models of digital consumer behavior and online retail resilience (Kim, 2020b). Other key terms like "customer satisfaction" and "e-loyalty" highlight ongoing academic interest in building trust and fostering long-term customer relationships in virtual marketplaces.

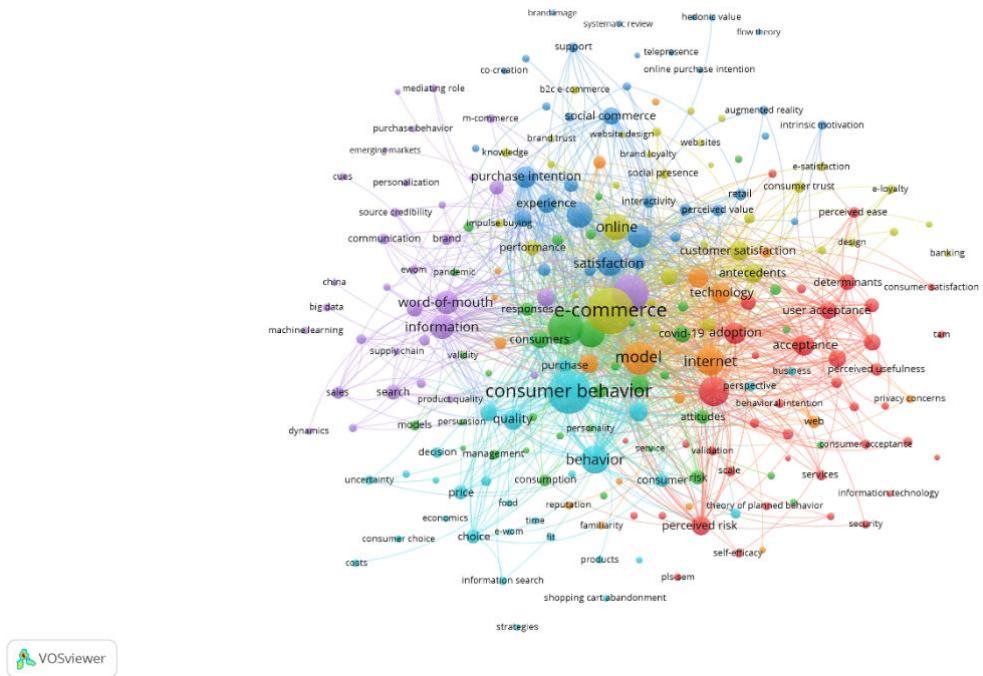


Figure 4. Cooccurrence of authors' keywords

Source: author's own elaboration based on VOSviewer

This keyword co-occurrence analysis clearly shows the diverse and evolving research paths within e-commerce and consumer behavior.

The prominence of keywords such as “perceived usefulness,” “ease of use,” and “adoption” aligns closely with the assumptions of TAM and UTAUT, indicating that recent publications continue to rely on these models to explain consumer decision-making in digital contexts. Likewise, the growing research focus on trust, risk, and privacy reflects the increasing relevance of e-trust and digital security frameworks, which conceptualize how uncertainty, platform reliability, and data protection shape online behavior.

Discussion

This study presents a comprehensive bibliometric analysis of research trends in consumer behavior in e-commerce, examining 629 documents published across 188 sources from 2000 to 2025. The annual growth rate of 15.08% indicates a sustained increase in scholarly interest in understanding how consumers navigate digital marketplaces and how technological innovations shape online purchasing behavior.

The growth in publications over the past 25 years reflects the transformative impact of digital technologies, mobile commerce, and platform-based business models on retail. Early research primarily emphasized consumer trust and online risk perceptions (Gefen et al., 2003), whereas recent studies explore AI-driven personalization, social commerce, and digital experience design (Lemon & Verhoef, 2016). This shift shows how the field responds to the complexities of consumer journeys in the digital age.

Looking at the most influential publication outlets, it is clear that journals like the Journal of theoretical and applied electronic commerce research, Journal of retailing and consumer services, Journal of Electronic commerce research and applications play a key role in advancing the discussion. These journals have created important spaces for developing conceptual frameworks and empirical studies on digital consumer decision-making. Such interdisciplinary nature of this research area is evident, bridging marketing, information systems, psychology, and management studies (Dwivedi et al., 2021b).

At the institutional level, key contributions come from universities with strong e-commerce research centers and industry partnerships. Notable institutions in Asia and Europe, such as Yonsei University, the Southwestern University of Finance and Economics, and City University of Hong Kong, have gained recognition in recent years. This aligns with global e-commerce growth, particularly in rapidly developing digital economies (Sheth, 2020).

Geographically, the United States, China, and India continue to lead in producing impactful research, reflecting their established online markets and high internet usage. However, there is a gradual increase in research output from Southeast Asian and Middle Eastern countries, suggesting that research is becoming more globally distributed (Hajli, 2015b). This trend highlights how contextual factors like cultural values, infrastructure, and regulations influence online consumer behavior.

The co-occurrence analysis of 228 authors' keywords sheds light on the thematic structure of the field. Frequently used terms such as "trust," "perceived risk," "purchase intention," and "online reviews" remain central to this literature, confirming that building and maintaining trust is still a key challenge for e-commerce platforms (Pavlou, 2016). Emerging clusters around "social commerce," "mobile shopping," "big data analytics," and "personalization" show how the field evolves to integrate new technologies and tackle real-time consumer engagement (Pantano & Vannucci, 2019).

Overall, these findings highlight that research on consumer behavior in e-commerce is both dynamic and increasingly complex. It continually incorporates views on technological innovation, consumer psychology, and cross-cultural factors. As digital commerce expands, future research needs to tackle important issues like privacy concerns, algorithm transparency, sustainable consumption, and equal access to digital marketplaces (Verhoef et al., 2017).

Implications and Recommendations

The study of consumer behavior in e-commerce has grown a lot over the past twenty-five years. It highlights new trends, theoretical progress, and emerging topics. This bibliometric analysis offers useful insights for academics, practitioners, and policymakers who want to understand how consumers interact with online marketplaces and what influences their buying decisions.

The steady growth in scientific output, which has averaged more than 15 percent per year over the past twenty-five years, demonstrates that understanding consumer behavior is fundamental to the long-term sustainability of e-commerce. For businesses, this highlights the need to consciously update consumer insights to refine engagement strategies and maintain competitiveness in increasingly saturated digital markets (Lemon & Verhoef, 2016).

The results also highlight the prominent role of leading countries and institutions in shaping global research standards. For scholars and practitioners in developing regions, these findings offer a benchmark for expanding research capacity, building institutional networks, and strengthening international collaboration.

The prevalence of keywords associated with online trust, satisfaction, purchase intention, social commerce, and mobile shopping indicates that these themes remain central to understanding digital consumer behavior(Hajli, 2015c; Pavlou, 2016). As data protection regimes become more stringent worldwide, issues related to privacy, algorithmic transparency, and responsible data stewardship will require ongoing attention. So, for industry stakeholders, the findings reinforce the importance of adjusting to evolving consumer expectations through data-driven personalization, streamlined digital experiences, and ethically managed analytics. Integrating behavioral insights into marketing and platform design can enhance customer loyalty and support sustainable competitive advantage.

However, this study has some limitations. First, it relied solely on data from the Web of Science Core Collection, which might not include all relevant literature from other major databases. Second, the keyword-based approach is quantitative and doesn't fully capture the richness of qualitative research. Future studies could build on this work by analyzing the content of highly cited publications or using text mining techniques to explore underlying themes and trends.

Based on these insights, we suggest several ways for researchers and practitioners to move the field forward. (1) Deepen empirical investigations, that future studies should continue to test and improve theories of digital consumer behavior using different methods and data sources, especially in under-researched areas like emerging economies and niche markets. (2) Integrate interdisciplinary perspectives, by combining insights from psychology, sociology, information systems, and marketing can enhance our understanding of consumer behavior in complex digital environments. (3) Prioritize emerging trends, where researchers should focus more on topics like sustainability in e-commerce, the impact of social media influencers, and the role of AI and virtual reality in shaping online shopping experiences.

By following these recommendations, future research can help develop evidence-based strategies for businesses adapting to the changing digital landscape of consumer behavior. Ultimately, a deeper and clearer understanding of consumers will support sustainable growth, build trust, and create value across the e-commerce sector.

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