

Review

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Review

Retail and Consumer Behavior: Bibliometrics Review

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Abstract: This article conducts a bibliometric analysis focusing on the influence of globalization and technology in the academic context. Previous studies have focused on analyzing the relationship between the number of research citations and international collaboration, but no study has explored it in the scope of consumer behavior and retail. Leveraging the Scopus database, the research analyzes a significant corpus of 2,111 documents from 1971 to 2022. The findings reveal a distinct surge in academic output related to the topic of technology, reflecting a growing interest in understanding the interaction between technological factors and consumer behavior. The study also explores trends in international collaboration in publications as well as its impact on citation counts.

Keywords: consumer behavior; retail; VOSviewer; bibliometrics; research community

I. Introduction

In the era of globalization, international collaboration is increasing rapidly, becoming an indispensable part in every field. International co-author relationships have been shaping a new dynamic in the research field in recent decades (Leydesdorff, Park & Wagner, 2013). This collaboration is highly effective and has a positive impact on academic success, especially as cross-border collaboration becomes more and more common. Citations are considered a measure of academic success when it is acknowledged as a reward indicator in the scientific system (Merton, 1968; Martin & Irvine, 1983; Moed et al., 1985; Luukkonen, 1990) and the most popular indicator in measuring scientific impact (Furham, 1990). A study found that papers with infrequent citations were low quality (Padial et al., 2010). Meanwhile, high-quality publications are cited more frequently (Patterson & Harris, 2009). Wagner et al. (2017) argued that the wider the collaborative network, the higher the impact, concluding that international collaboration has a high influence on citation impact in the majority of subject areas. Also, previous studies suggest that international collaboration is associated with higher citation impact (Katz & Hicks, 1997).

Research topics were found to be strongly related to citation impact (Sjögårde & Didegah, 2022), while the number of publications or researchers showed a weak impact (Didegah, 2014). Thelwall and Sud (2021) pointed out that new or emerging topics are frequently cited more. Also, publications on these topics benefit from both internal and external citation links (Kwon et al., 2019), thereby gaining a citation advantage. Technology with its constant changes has produced new research problems, reshaping the relationship between retail and consumer behavior. For example, the online shopping environment (Häubl & Trifts, 2000) have been researched since the 20th century, delving deeper into consumer's purchasing motivation, through developing related models and theories. Papers exploring this topic receive a large number of citations. The focus of the research within retail and consumer behavior in the 21st century saw significant changes in retail models, moving from local store-centric models to multichannel models. However, if we take a closer look, these researches still focus heavily on technological factors. Not only increasing in quantity, papers exploring these topics also receive significant impacts on citation count.

However, the influence of international collaboration and technology in citation count in the context of retail and consumer behavior has not been thoroughly researched. By analyzing trends, identifying key contributors and highlighting core subject areas, bibliometric research can provide invaluable insights into the state of research in any specific field (El Akrami et al., 2023).

II. Materials and Methods

Bibliometric analysis, a quantitative research method, is essential for systematically examining vast scientific literature collections (Donthu et al., 2021). Its primary function is to explore patterns, relationships, and trends within a specified research area. Such an analysis is valuable for comprehending the landscape and evolution of a particular domain, in this case, the interplay between retailing and consumer behavior. Scopus is one of the world's leading databases for finding academic papers. The study chose it because it has many articles on retailing and consumer behavior. It allowed us to search for many papers simultaneously and was crucial for ensuring our research covered as much ground as possible.

The study primarily sourced its data from the Scopus database, which is recognized for its comprehensive collection of peer-reviewed research literature. Scopus provides a balanced blend of journals, conference proceedings, and patents, making it a fitting choice for a study intending to capture the multifaceted nature of retailing and consumer behavior research over the decades (Burnham, 2006).

The following search criteria were employed to ensure the relevancy of the documents:

TITLE-ABS-KEY (retail OR retailing AND "consumer behavior" OR "consumption behavior") AND PUBYEAR > 1961 AND PUBYEAR < 2023 AND (LIMIT-TO (SUBJAREA, "BUSI") OR LIMIT-TO (SUBJAREA, "SOCI") OR LIMIT-TO (SUBJAREA, "DECI") OR LIMIT-TO (SUBJAREA, "PSYC")) AND (LIMIT-TO (LANGUAGE, "English"))

In accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, this study has undertaken a rigorous data collection and filtration process to explore the relations between consumer behavior and retail within a defined academic context. The research embarked on a comprehensive search commencing from the earliest publications on the subject, culminating in the year 2022, judiciously excluding documents from 2023 and certain papers from 2024 since the dataset from these years is not complete for usage. The initial search span yielded a corpus of documents indicative of the prolific scholarly activity within consumer behavior and retail domains.

The search was meticulously narrowed to four specific subject areas to ensure the pertinence of the literature to the study's focus areas. These areas were selected based on their direct implications and contributions to the overarching themes of retail and consumer behavior. Consequently, documents were excluded from the categories of Business, Management, and Accounting (2,737 documents), Social Science (768 documents), Decision Science (239 documents), and Psychology (163 documents). This strategic limitation was pivotal in refining the search results suitable to the study's investigative drive. The exclusion of potentially related domains such as Economics, Econometrics, and Finance (467 documents), Computer Science (280 documents), Environmental Science (258 documents), and Engineering (191 documents), among others, was a conscious decision to anchor the study within the most significant parameters without diluting its focus. The prioritization of relevance over breadth ensured the research aligned with the most influential factors shaping consumer behavior in retail contexts.

The PRISMA guidelines necessitate criteria and systematic processes, contributing to the credibility and reproducibility of research findings (Moher et al., 2009). The resulting dataset from this scrupulous process offers a robust foundation for subsequent analysis (Kahrass, et al., 2021). The findings drawn from these carefully curated sources are expected to provide significant insights into consumer behavior and retail dynamics, potentially illuminating pathways for future scholarly exploration. Furthermore, the language criterion was established to consider only documents published in English, recognizing it as the main language of the global academic community, thereby maximizing the accessibility and applicability of the findings. As shown in Figure 1, the initial yield

from the Scopus database comprised 5,111 documents. After language filtration, the corpus remains 3,461 English language papers. The PRISMA framework guided the exclusion of papers that satisfied one of the criteria central to this research: consumer behavior or retail. Employing PRISMA enhances the precision of data selection and ensures transparency in the research process. It allows for delineating the research's scope with an explicit, replicable method. Such a meticulous approach is echoed in the literature, where PRISMA's structured process is lauded for its capacity to filter and substantiate the quality of systematic reviews (Page et al., 2021). In this vein, the present study's adherence to PRISMA's systematic criteria underscores its scholarly rigor. This refinement was instrumental in distilling the dataset to a core of 2,111 documents, embodying a precise match for the research question at hand.

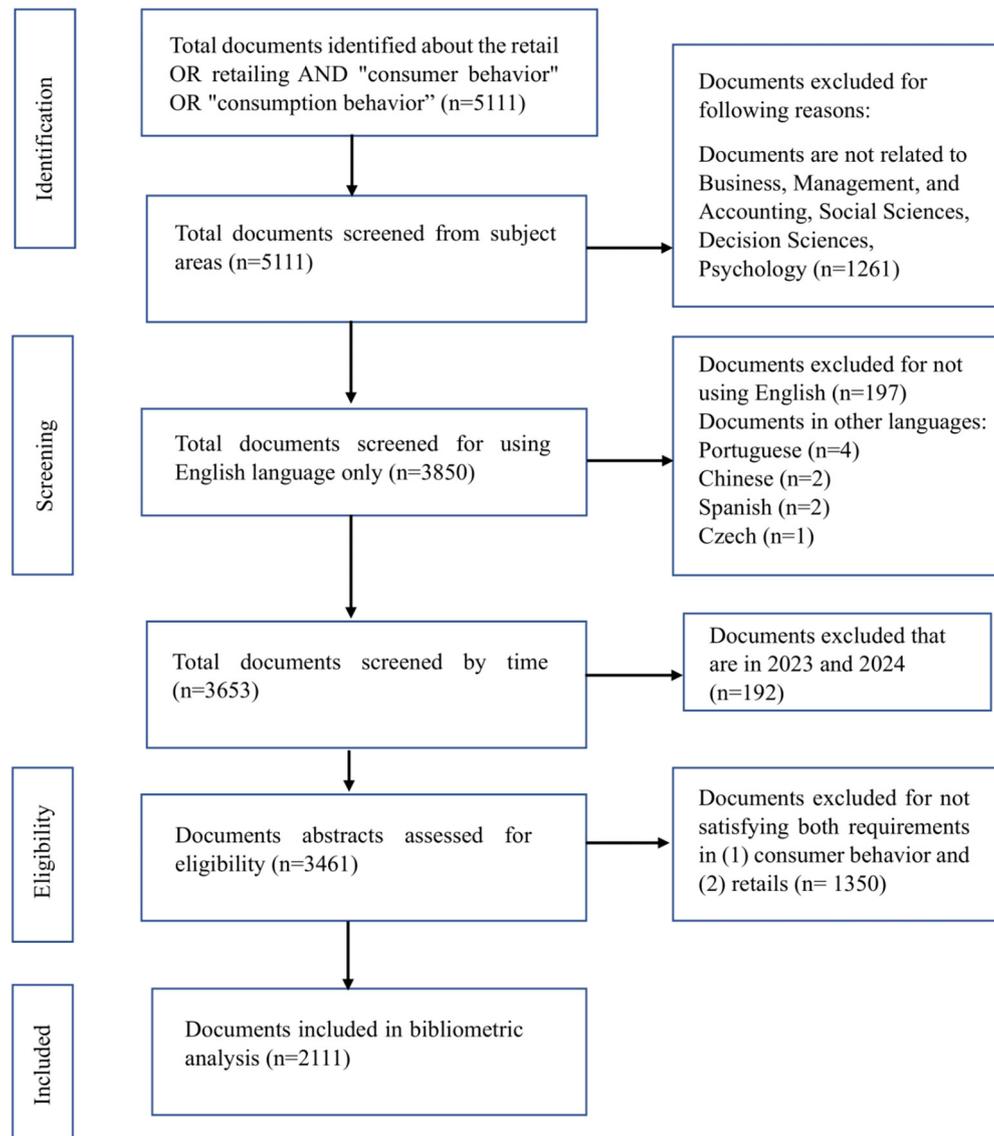


Figure 1. APPLICATION OF PRISMA.

III. Findings

1. Longitudinal Growth and Types of Document

From 1971 to 2022, there are two types of collaborative documents: national/domestic collaborative documents (labeled in blue, Figure 2), international collaborative documents (labeled in orange, Figure 2). Both types of collaboration recorded a strong increase. International

collaborative documents first appeared in 1989, but it was not until 1998 that the trend of international collaboration truly flourished and developed. National collaboration dominates the timeline; however, the number of international collaborations, starting in 1998, tends to increase steadily each year. The number of international collaborative publications in the last 10 years (2013-2022) was recorded to increase 33.69% compared to the previous period (2003-2012). Besides, in the past fourteen years (2009-2022), the number of international collaborative publications accounts for at least 14% each year of the total number of publications. Especially in the last three years (2020 - 2022), more than 20% of published articles were written by international research teams. This increase implies the influence of globalization on the research field.

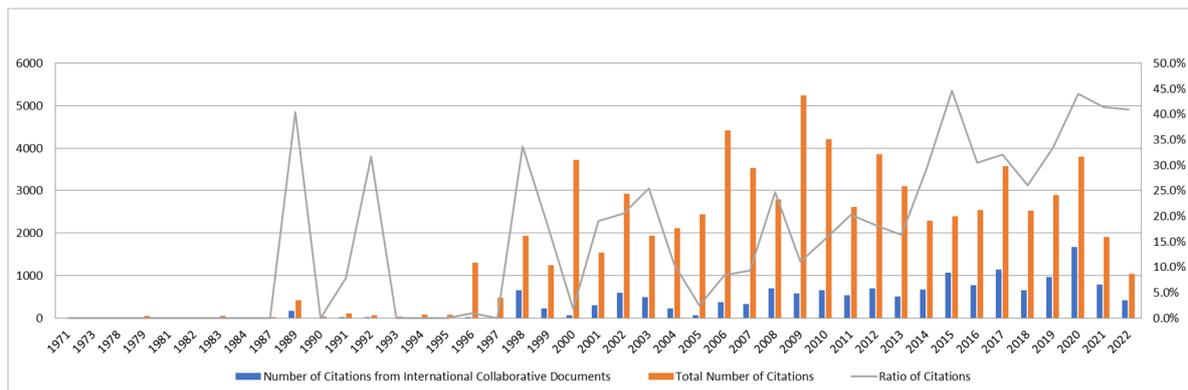


Figure 2. NUMBER OF TYPES OF COLLABORATION PER YEAR (1971 - 2022).

Although the citation count of international collaborative documents, from 1972 to 2022 (Figure 3), only accounted for a small number compared to domestic collaborative publications, the impact of international collaboration on the number of citations is significant. Since 2010, the citation count of international collaborative papers has increased steadily, accounting for at least 15% per year of the total. In the period 2020-2022, it accounts for 40% of the total.

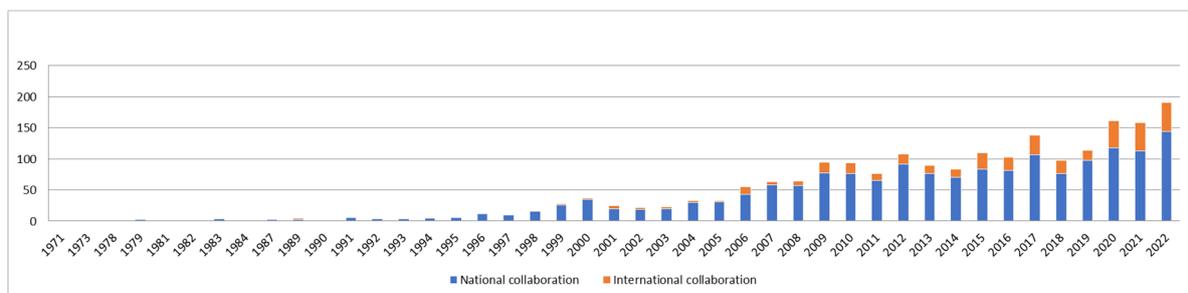


Figure 3. NUMBER OF CITATION FROM INTERNATIONAL COLLABORATION.

2. Countries

The United States, with an average publication year of 2012, alongside the United Kingdom (2011), Canada (2011), and Australia (2014), emerge as significant contributors, indicating their longstanding influence in the field. These influences with countries such as New Zealand, Belgium, and the Netherlands demonstrate a cluster of advanced research activity with publications averaging between 2010 and 2013. Countries such as Bangladesh, Yemen, and Morocco, display active involvement. Two recent massive players in publishing about consumer behavior and retail are India and China, illustrating an average publication year of 2017-2018. Germany and Japan, averaging 2015, showcasing a spectrum of growing engagement. This cartographic representation shows the historical depth of contributions and indicates the evolving landscape of international research collaboration (Figure 4).

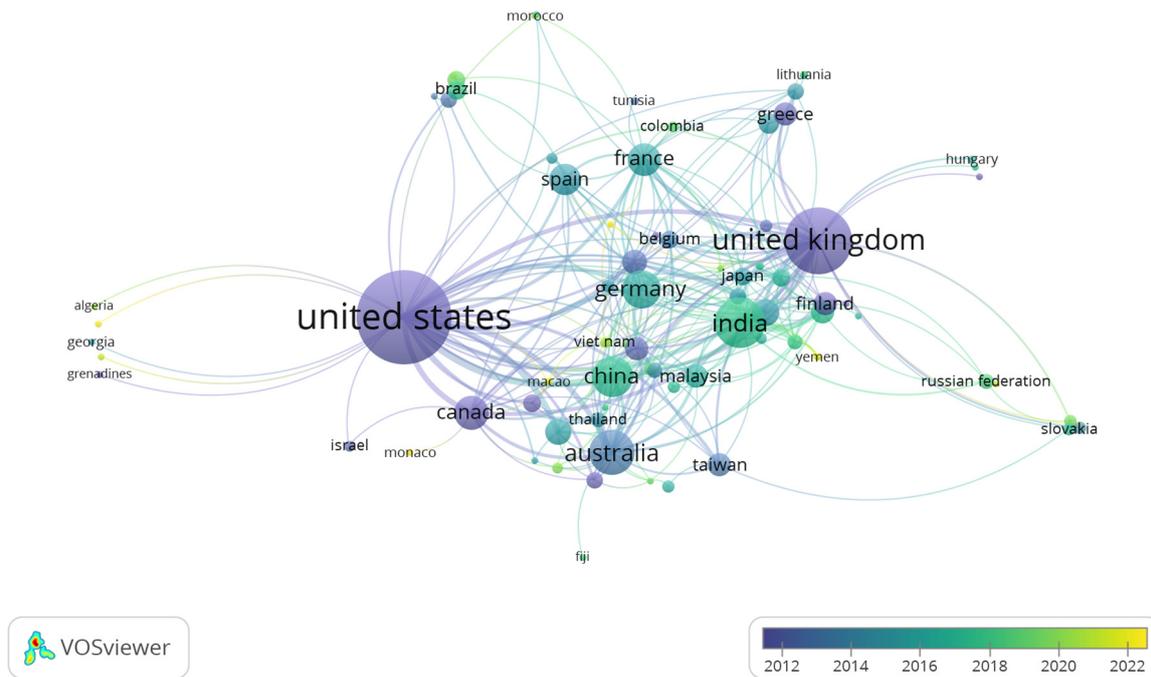


Figure 4. 81 COUNTRIES PUBLISHING IN THE FIELD OF CONSUMER BEHAVIOR AND RETAIL.

Description: In this representation of academic engagement among countries, each node represents a country involved in contributing to publications. The node's magnitude reflects the number of published works. Larger nodes indicate countries with a higher volume of publications. The colors of nodes are to determine the average publication years of each country, spanning from dark purple (before 2012) to yellow (2022). The connection between nodes shows the increasingly strong trend of international cooperation between countries.

The top 3 countries with the most citations show a number of international collaborative documents (Table 1). Particularly, the United States internationally collaborates on 314 of the 591 documents, 24 with China, 19 with South Korea, 15 with Australia, 15 with Canada, 12 with India, 11 with Germany, and 10 with the United Kingdom, 8 with Netherlands, 6 with Taiwan, 5 with Thailand. Second place as the country with the most citations, the United Kingdom has 79 international cooperation documents out of 299 published articles. There were 11 documents with France, 8 with Canada, and 7 with Germany, 7 with Italy, 5 with Greece, 5 with China. In addition, 51 of Australia's 137 publications are international collaborative projects. In addition to 15 publications collaborating with the US, there are 5 with Malaysia, 5 with Canada, 5 with the United Kingdom. Interestingly, Austria collaborated on 16 documents overseas, and 7 of them were with Germany.

Table 1. 20 COUNTRIES WITH THE MOST DOCUMENTS AND CITATIONS.

| No | Country | Documents | No | Country |
|----|--------------------|-----------|----|--------------------|
| 1 | The United States | 591 | 1 | The United States |
| 2 | The United Kingdom | 299 | 2 | The United Kingdom |
| 3 | India | 178 | 3 | Australia |
| 4 | Australia | 141 | 4 | India |
| 5 | China | 119 | 5 | Netherlands |
| 6 | Germany | 103 | 6 | Finland |
| 7 | Canada | 80 | 7 | Canada |
| 8 | France | 72 | 8 | Germany |

| | | | | |
|----|--------------|----|----|--------------|
| 9 | Spain | 68 | 9 | China |
| 10 | Italy | 53 | 10 | Italy |
| 11 | South Korea | 45 | 11 | Spain |
| 12 | Netherlands | 44 | 12 | South Korea |
| 13 | Taiwan | 40 | 13 | France |
| 14 | Finland | 39 | 14 | Belgium |
| 15 | South Africa | 38 | 15 | Taiwan |
| 16 | New Zealand | 37 | 16 | New Zealand |
| 17 | Malaysia | 37 | 17 | Greece |
| 18 | Greece | 36 | 18 | South Africa |
| 19 | Sweden | 31 | 19 | Sweden |
| 20 | Brazil | 27 | 20 | Norway |

3. Institutions

In the top 20 institutions with the most documents, all 20 institutions cooperates at least once with an institution from another country (Table 2). Notably, University of Manchester, United Kingdom (#1), collaborated on 5 out of 25 documents with 5 countries (Italy, Bangladesh, China, Malaysia, Cyprus); University of South Australia, Australia (#5) collaborated on 8 out of 20 articles with 8 countries (Germany, United States, New Zealand, Canada, Denmark, France, Italy, United Arab Emirates); University of Stirling, United Kingdom (#10), collaborating on 7 out of 16 articles with 7 countries (Ukraine, Poland, Canada, France, Ireland, Austria, Taiwan).

Regarding citations, 18 out of 20 institutions carry out international collaboration, except for Creighton University and Duke University from the United States. In particular, University of Groningen, Netherlands (#1) collaborated with universities from the US and Switzerland on 3 out of 6 articles. In addition, Maastricht University, Netherland (#2) international cooperation 5 out of 7 articles with 4 countries (Vietnam, United Kingdom, Belgium and United States). North-West University, South Africa (#10) collaborated on 6 out of 7 articles with 7 countries (Norway, India, Finland, Russia, Saudi Arabia, Italy, United Arab Emirates).

Table 2. INSTITUTIONS WITH THE MOST DOCUMENTS AND CITATIONS.

| No | Institutions | Documents | No | Institutions | Citations |
|----|--|-----------|----|--------------------------------------|-----------|
| 1 | University of Manchester, UK | 25 | 1 | University of Groningen, Netherlands | 1,659 |
| 2 | University of South Carolina, USA | 24 | 2 | Maastricht University, Netherlands | 1,379 |
| 3 | Manchester Metropolitan University, UK | 21 | 3 | Northwestern University, USA | 1,330 |
| 4 | Athens University, Greece | 19 | 4 | Middlesex University, UK | 1,236 |
| 5 | University of South Australia, Australia | 19 | 5 | Babson College, USA | 1,195 |
| 6 | University of Tennessee, USA | 19 | 6 | University of Alberta, CA | 1,188 |
| 7 | Monash University, Australia | 16 | 7 | University of Memphis, USA | 1,159 |
| 8 | University of North Texas, USA | 16 | 8 | Athens University, Greece | 1,106 |
| 9 | California State University, USA | 15 | 9 | Texas A&M University, USA | 1,079 |
| 10 | University of Stirling, UK | 15 | 10 | North-West University, South Africa | 1,073 |
| 11 | Griffith University, Australia | 14 | 11 | University of North Texas, USA | 946 |
| 12 | Middlesex University, UK | 14 | 12 | University of Wisconsin, USA | 928 |
| 13 | University of Wisconsin, USA | 14 | 13 | University of Connecticut, USA | 889 |
| 14 | University of Pennsylvania, USA | 14 | 14 | Creighton University, USA | 859 |

| | | | | | |
|----|--|----|----|--|-----|
| 15 | Michigan State University, USA | 11 | 15 | Duke University, USA | 851 |
| 16 | Iowa State University, USA | 11 | 16 | University of Pennsylvania, USA | 847 |
| 17 | University of Bristol, UK | 11 | 17 | Lappeenranta University of Technology, Finland | 841 |
| 18 | Northwestern University, USA | 10 | 18 | Griffith University, AU | 839 |
| 19 | Cardiff University, UK | 10 | 19 | University of South Carolina, USA | 804 |
| 20 | The Hong Kong Polytechnic University, HK | 10 | 20 | New York University, USA | 711 |

As shown in Table 2, the top three institutions in the most cited publications shared three common topics in their documents including multichannel, omnichannel and online shopping behavior. Specifically, the University of Groningen wrote 4 out of 6 documents on omnichannel and multichannel, its number of citations accounted for 81.4% of total. Similarly, Maastricht University explored the topic of multichannel and online shopping behavior in 4 out of 7 documents, its number of citations accounting for 69.1% of the total. 3 of the 7 documents written by Northwestern University related to online shopping behavior, accounting for 68.2% of the total citations. These data implied that documents focus on exploring technology trends that often receive more citations.

4. Authors

Pantano emerges at the peak with 16 documents, showcasing high academic activity (Table 3). However, a different metric of success is evident. Grewal d, with just five documents, has amassed 1806 citations, positioning him as the most influential author. This dichotomy underscores that a large volume of work, as demonstrated by Dennis (15 documents), does not necessarily equate to the most impactful research.

Table 3. AUTHORS WITH THE MOST DOCUMENTS.

| No | Author | Affiliation, Country | Documents | Most Cited Publication |
|----|----------------------------|--------------------------------------|-----------|---|
| 1 | Pantano, Eleonora | University of Bristol, UK | 16 | Competing during a pandemic? Retailers' ups and downs during the COVID-19 outbreak |
| 2 | Dennis, Charles | Middlesex University, UK | 15 | Competing during a pandemic? Retailers' ups and downs during the COVID-19 outbreak |
| 3 | Rajagopal Rajagopal | EGADE Business School, Mexico | 13 | Growing shopping malls and behaviour of urban shoppers |
| 4 | Carpenter, Jason | University of South Carolina, USA | 12 | Consumer demographics, store attributes, and retail format choice in the US grocery market |
| 5 | Foxall, Gordon | Cardiff University, UK | 9 | Understanding consumer choice |
| 6 | Schramm-Klen, Hanna | University of Siegen, Germany | 9 | Cross-channel integration - is it valued by customers? |
| 7 | Vrechopoulos, Adam | Athens University, Greece | 8 | Virtual store layout: An experimental comparison in the context of grocery retail |
| 8 | Moore, Marguerite | North Carolina State University, USA | 8 | Consumer demographics, store attributes, and retail format choice in the US grocery market |
| 9 | Bruwer, Johan | The University of Adelaide, AU | 8 | Region of origin as choice factor: wine knowledge and wine tourism involvement influence |
| 10 | Swoboda, Bernhard | University of Trier, Germany | 7 | Reciprocal Effects of the Corporate Reputation and Store Equity of Retailers |
| 11 | Nichols, Bridget Satinover | Northern Kentucky University, USA | 7 | 'That item is mine!' Consumer competitiveness and need for control: A study of internet auction bidding |

| | | | | |
|----|----------------------|--|---|--|
| 12 | Dhir, Amandeep | University of Agder, Norway | 6 | Why do people use food delivery apps (FDA)? A uses and gratification theory perspective |
| 13 | Phau, Ian | Curtin University, AU | 6 | Factors influencing the types of products and services purchased over the Internet |
| 14 | Kim, Jihyun | Virginia Polytechnic Institute and State University, USA | 6 | The effect of offline brand trust and perceived internet confidence on online shopping intention in the integrated multi-channel context |
| 15 | Sigurdsson, Valdimar | Reykjavik University, Iceland | 6 | Virtual reality through the customer journey: Framework and propositions |
| 16 | Grewal, Dhruv | Babson College, USA | 5 | Challenges and opportunities in multichannel customer management |
| 17 | Verhoef, Peter | University of Groningen, Netherlands | 5 | Challenges and opportunities in multichannel customer management |
| 18 | Lennon, Sharron | Ohio State University, USA | 5 | Effects of reputation and website quality on online consumers' emotion, perceived risk and purchase intention: Based on the stimulus-organism-response model |
| 19 | Clarke, Ian | Glasgow Caledonian University, UK | 5 | 'One brand, three ways to shop': Situational variables and multichannel consumer behaviour |
| 20 | Scarpi, Daniele | University of Bologna, Italy | 3 | Competing during a pandemic? Retailers' ups and downs during the COVID-19 outbreak |

When 17 out of 20 authors with the highest impact produce internationally co-authored publications, only 3 authors including Clarke, Phau and Nichols perform national co-authorship. Particularly, Pantano wrote 7 international co-authored publications of the 16 published researches (received 768 out of 1456 citations); followed by Dhir with 6 out of 6 documents (received 1,072 citations), Bruwer with 5 out of 8 documents (received 174 out of 352 citations), Swoboda with 3 out of 7 documents (received 111 out of 170 citations).

5. Keywords

The visual map of current research in consumer behavior reveals distinct thematic clusters defined by key terms and average publication years. Consumer behavior (average publication year 2012) and retailing (2011) are central to the discourse, indicating foundational focus areas. The chart shows emerging topics, encompassing 'omnichannel retailing' and 'digital transformation,' reflecting adaptive research post-2020 and underscoring the field's engagement with the digital landscape's evolution. Dating from before 2012, include 'internet' and 'virtual banking,' mapping the technology's early influence on consumer behavior (Figure 5).

| | | | | | |
|----|---|---|------|---|-----|
| 5 | On the relationship between store image, store satisfaction and store loyalty | Bloemer J., de Ruyter K. | 1998 | European Journal of Marketing | 652 |
| 6 | Wine online: Search costs affect competition on price, quality, and distribution | Lynch Jr. J.G., Ariely D. | 2000 | Marketing Science | 642 |
| 7 | Multichannel customer management: Understanding the research-shopper phenomenon | Verhoef P.C., Neslin S.A., Vroomen B. | 2007 | International Journal of Research in Marketing | 627 |
| 8 | Customer Experience Management in Retailing: Understanding the Buying Process | Puccinelli N.M., Goodstein R.C., Grewal D., Price R., Raghurir P., Stewart D. | 2009 | Journal of Retailing | 592 |
| 9 | Subjective norms, attitudes and intentions of Finnish consumers in buying organic food | Tarkiainen A., Sundqvist S. | 2005 | British Food Journal | 584 |
| 10 | Identifying key factors affecting consumer purchase behavior in an online shopping context | Park C.-H., Kim Y.-G. | 2003 | International Journal of Retail & Distribution Management | 539 |
| 11 | Consumption self-control by rationing purchase quantities of virtue and vice | Wertenbroch K. | 1998 | Marketing Science | 535 |
| 12 | Consumer behavior and purchase intention for organic food: A review and research agenda | Rana J., Paul J. | 2017 | Journal of Retailing and Consumer Services | 523 |
| 13 | Searching for experience on the web: An empirical examination of consumer behavior for search and experience goods | Huang P., Lurie N.H., Mitra S. | 2009 | Journal of Marketing | 500 |
| 14 | Convergence and divergence in consumer behavior: Implications for international retailing | De Mooij M., Hofstede G. | 2002 | Journal of Retailing | 440 |
| 15 | Unusual purchasing behavior during the early stages of the COVID-19 pandemic: The stimulus-organism-response approach | Laato S., Islam A.K.M.N., Farooq A., Dhir A. | 2020 | Journal of Retailing and Consumer Services | 434 |
| 16 | Competing during a pandemic? Retailers' ups and downs during the COVID-19 outbreak | Pantano E., Pizzi G., Scarpi D., Dennis C. | 2020 | Journal of Business Research | 381 |
| 17 | The missing link between corporate social responsibility and consumer trust: The case of fair trade products | Castaldo S., Perrini F., Misani N., Tencati A. | 2009 | Journal of Business Ethics | 369 |
| 18 | Effects of reputation and website quality on online consumers' emotion, perceived risk and purchase intention: | Kim J., Lennon S.J. | 2013 | Journal of Research in | 351 |

| | | | | | |
|----|---|---|------|---|-----|
| | Based on the stimulus-organism-response model | | | Interactive Marketing | |
| 19 | Buying or browsing: An exploration of shopping orientations and online purchase intention | Brown M., Pope N., Voges K. | 2003 | European Journal of Marketing | 346 |
| 20 | Decomposing the value of department store shopping into utilitarian, hedonic and social dimensions: Evidence from Finland | Rintamäki T., Kanto A., Kuusela H., Spence M.T. | 2006 | International Journal of Retail & Distribution Management | 331 |

In 1971 to 2012, the focus of the research articles mainly revolved around psychological theories in consumer and selling behavior (Figure 6), mainly including customer loyalty, customer satisfaction, marketing, and electronic commerce. Researchers and scholars concentrated on exploring and establishing theories in consumer purchasing choices flourished during this period.

IV. Discussion

During the period from 1971 to 2022, the number of international collaborative publications increased rapidly, especially in the last 10 years due to the globalization trend. In the last three years (2020-2022), although these publications only account for 30% of the total number of papers published, they received 40% of citation counts, suggesting that international collaboration attracts more citations than national ones. The study by Persson et al. (2004) and Adams (2013) also showed similar results, thereby showing that the production of research is shifting from individual to group, from one to multiple institutions, from national to international level (Freeman & Huang, 2015).

International collaboration occurs widely at all levels of countries, institutions and scholar communities. The trend of cross-border cooperation is widely implemented, especially in leading countries with the most citations such as the United States or the United Kingdom. Articles with international collaboration account for a large number of publications in these countries, implying the citation impact of its collaboration. Institutions also recorded a high positive impact in citation counts. The institutions with the most citations all share the common point of collaborating with a variety of different countries in research. Although these institutions produce just a few documents, they frequently receive a higher number of citations than the merely domestic collaborative institutions. The reason for this phenomenon is because international collaboration between institutions boosts the ability for research's visibility and impact (Tahamtan, Safipour, & Ahamdzadeh, 2016). International collaboration is also common among the community of most influential authors in the field. Similar to institutions, international co-authored documents receive a much higher number of citations than national co-authored documents. International collaboration is one of the significant factors that make the documents more frequently cited (Sooryamoorthy, 2009; Tahamtan et al., 2016). While close collaboration or domestic collaboration may offer many common ground, differences in perspectives and experiences in international contexts allow researchers to add diverse ideas or challenge possibilities (Wagner, 2005), thereby improving the overall quality of the papers, leading to a higher citation count.

Research topics in consumer behavior are greatly affected by technology throughout its formation and development. Specifically, emerging topics generated from the development of technology in each period have become a source of materials regularly exploited by scholars. Technology and consumer behavior are two inseparable fields, which is why the number of publications that focus on exploring this relationship is increasing. Although there is a shift in research focus, as early studies mainly explored psychological perspectives, focusing on individual decision-making processes in the digital era (Joseph and Gaba, 2020), recent research is mainly fueled by the interaction of technological innovation on consumer behavior. In addition, the most cited documents to date mainly exploit the impacts of technological factors on consumer behavior. Also,

technology aspects are also chosen for research by many influential authors, such as Clarke (2002), Grewal and Verhoef (2006) with 'multichannel' or Vrechpoulos (2004) with 'virtual stores'. Therefore, publications surrounding these topics are generally more frequently cited, thereby demonstrating the significant influence of technology on the research field, specifically in the context of retail and consumer behavior.

V. Conclusion

This study uses bibliometric analysis to explore the complex relationship between technology, globalization and citation impact in the context of consumer behavior and retail. It highlights the scope of international scholarly contributions, showing the significant influence of cross-border collaboration on citation counts. The finding reveals a direct proportional relationship between international collaboration and citation counts. A historical review shows that retail strategies and consumer preferences influence each other, adapting over time due to technological advances. Technology has emerged as a significant disruptor, changing retail structures and consumer decision-making, becoming a topic that has attracted scholars for decades. The increase in the number of documents and citations to research publications focusing on exploring technology in retail and consumer behavior indicates the dominance of emerging topics resulting from the development of technology. This research serves as a foundational reference for future academic work, identifying emerging topics and collaborative relations that need ongoing investigation. The research is a foundational reference for future academic work, identifying emerging topics and collaborative relations that require ongoing investigation.

VI. Limitation and Future Research

The present bibliometric analysis, while comprehensive in its scope, has limitations. Foremost among these is the absence of an in-depth exploration of the contributions of each individual author. The quantitative nature of this study inherently focuses on broader trends and patterns, which may overshadow the impact of single contributions that may have significantly influenced the field. Additionally, the investigation did not extend into the examination of the multidisciplinary implications of consumer behavior and retail, particularly in areas intersecting with technological advancements and sustainability concerns, which could have enriched the contextual understanding of the trends observed. A systematic review is proposed to complement the bibliometric findings for future research. Unlike bibliometric analyses, which quantitatively map the landscape of a research field, a systematic review would allow for a qualitative synthesis of evidence, focusing on the robustness and validity of the research outcomes. It would enable a detailed examination of methodologies, discussions, and theoretical frameworks, facilitating an understanding of the elaborate relationships between consumer behavior and retail dynamics. Such an approach contributes to the academic discourse by providing a thorough and critical evaluation of the literature, thereby identifying gaps and providing a focused agenda for future studies in the field.

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