

## **A BIBLIOMETRIC ANALYSIS OF CONSUMER PROTECTION AND E-COMMERCE FROM A LEGAL PERSPECTIVE**

**SONIA MAAN**

Ph.D Scholar, Amity Law School, Amity University, Manesar, Haryana, India.

**Dr. ANKITA SHARMA**

Assistant Professor, Amity Law School, Amity University, Manesar, Haryana, India.

### **Abstract**

Due to the rise in popularity of online shopping, protecting consumers in ecommerce has taken on increased importance recently. This research study offers a bibliometric evaluation of the legal literature on consumer protection and e-commerce from 2003 to 2023. The investigation was carried out with a variety of bibliometric resources, such as Scopus and Web of Science, and the outcomes were analyzed using a variety of statistical techniques. The study identified the most prevalent themes and subjects in the literature, the most significant institutions and writers, and the most often referenced research papers. The results of this study will give a thorough assessment of the state of legal research in consumer protection and e-commerce today.

**Keywords:** Bibliometrics, E-Commerce, Consumer Protection, Legal Framework, Regulation

### **INTRODUCTION**

The number of online transactions is steadily rising as ecommerce has integrated itself into every aspect of our everyday life. Global e-commerce revenues are anticipated to reach \$6.38 trillion by 2024, according to a Statista analysis (Statista, 2021). Due to this expansion, consumer protection in e-commerce is now more important than ever. The Electronic Commerce (EC Directive) Regulations 2002 in the UK and the Consumer Protection from Unfair Trading Regulations 2008 in the European Union are only two of the rules and regulations that have been put in place to safeguard online buyers. These rules are designed to protect customers from the dishonest and deceptive tactics used by online merchants and sellers (Garcia-Gonzalez, et al., 2020; Anderson & O'Leary, 2017).

Many studies have been carried out to assess the effectiveness of these strategies and to pinpoint areas that need improvement. For instance, Kaur and Taneja (2021) looked at how Indian consumers felt about their rights when making purchases online. Their findings suggest that while customers are aware of their rights, they are unaware of the channels they have at their disposal for resolving consumer disputes. Similar to the above, Ficarella et al. (2020) examined the technological and legislative resources available in the European Union and the United States for safeguarding customers from fraudulent activity. They came to the conclusion that in order to effectively safeguard consumers, a mix of legislative and technical solutions are required.

In this paper, we will undertake a bibliometric study of the legal research on consumer protection and e-commerce. The study will show which themes and subjects are most prevalent

in the literature, which institutions and authors are most significant, and which research publications are most frequently cited. The results of this study will give a thorough assessment of the status of legal research in consumer protection and e-commerce and will guide future studies in the area and consumer protection in e-commerce policy choices.

## **OBJECTIVES OF THE RESEARCH**

With the aid of research Meta-Data from prestigious journals during the past 20 years, the main objective of this study is to present the state of the research advancements in consumer protection legislation. To determine the scope of the investigation, the following questions have been posed:

- RQ1: What are the topics addressed by publications in the field of consumer protection law from 2003 to 2023?
- RQ2: Which authors, sources, and nations are most productive when it comes to publishing research in the relevant field?
- RQ3: What are the co-occurrence, co-authorship, and co-citation patterns in consumer protection legislation and how are they applied in the marketing sector?
- RQ4: What are the current research areas in the field of consumer protection?
- RQ5: How has the analysis technique for consumer protection been applied in different fields?

## **RESEARCH METHODOLOGY**

To find pertinent literature, the study used bibliometric methods including Web of Science and Scopus. Among the search terms used were "consumer protection," "ecommerce," "law," "regulation," and "online shopping." The study comprised a list of the most prevalent themes and subjects in the literature, the most significant institutions and authors, and the most often referenced research publications. Numerous statistical techniques, such as citation analysis, co-citation analysis, and bibliographic coupling analysis, were used to analyze the data. The examination of the legal literature on consumer protection and e-commerce included the use of Web of Science, Scopus, R Studio, and the bibliometric package. According to Aria and Cuccurullo (2017), the bibliometric package in R Studio is a potent tool that offers a wide variety of functions for bibliometric analysis.

Several tools for doing citation analysis are provided by the bibliometric package in R Studio, including the building of citation networks, calculating citation metrics, and visualizing citation trends. To determine the most prominent writers and organizations in the subject, co-citation analysis was carried out using the bibliographic coupling approach, which finds the papers that are referenced together in other works. The most frequently referenced papers in the field may also be found using the bibliographic coupling approach. Additionally, to better comprehend the connections between the articles and the authors, visualizations of the bibliometric data, such as co-citation maps and network graphs, were created using the bibliometric package in

R Studio. The bibliometric package and R Studio were used to conduct a systematic and thorough study of the legal literature on consumer protection and e-commerce. This strategy made it possible to evaluate the best publications and writers in the field in a methodical and impartial manner, offering insightful information about the current level of research in the subject. The current literature on consumer protection rights in the e-commerce industry was analyzed in the present study using bibliometric, SMA, and network analysis while examining its applicability in other fields as well. The study's methodology is broken down into five parts based on the suggestions made by Aria and Cuccurullo (2017) and Firdaus et al. (2019).

The study's design, as well as its visualization and interpretation, are all parts of the methodical flow.

- 1) **Study Design:** To lay the groundwork for both the bibliometric analysis of the literature and the subsequent Scientific Mapping Analysis, the research questions are developed.
- 2) **Data collection:** Based on the search query, meta-data from the best journals has been first found, and the results have then been filtered based on document type, language, and categories.
- 3) **Data analysis:** Bibliometric analyses are typically performed using the Biblioshiny application of the Bibliometrix package of the R studio.
- 4) **Data Visualisation:** Citation network of various studies for creating the visual map of the clusters of citations among different documents using bibliographic coupling, Cooccurrence networks for the identification of various thematic clusters, and Social networks among Top authors (Collaboration) have all been created using the orange software.
- 5) **Interpretation:** The study's conclusion section contains a discussion of how the research findings should be interpreted. When identifying the research gap, this methodological flow is the approach that is most frequently recommended for synthesizing recent studies.

## FINDINGS AND DISCUSSIONS

According to the study, Consumer Protection Laws and Regulations, Online Dispute Resolution, and Privacy and Data Protection were the three main topics in the literature. The most often referenced paper in the topic, "The Digital Consumer" by Benjamin Wright, dealt with Consumer Protection Legislation and Regulations. Florencio Lopez-de-Silanes, Hans-W. Micklitz, and Lucila Aquino-Hernandez were named as the most prominent writers, and the Universities of Cambridge, Harvard, and Oxford were named as the most influential institutions. According to this study's conclusions, Consumer Protection in E-Commerce is crucial from a legal standpoint. The study pinpoints the most prevalent themes and subjects in the literature, the most significant institutions and writers, and the most popular academic papers. These results can be used to direct future study in the area and to help the development of consumer protection policies for e-commerce. In the figure below, we can see how the number of papers have increased per year, this clearly shows a growth in the topic of concern

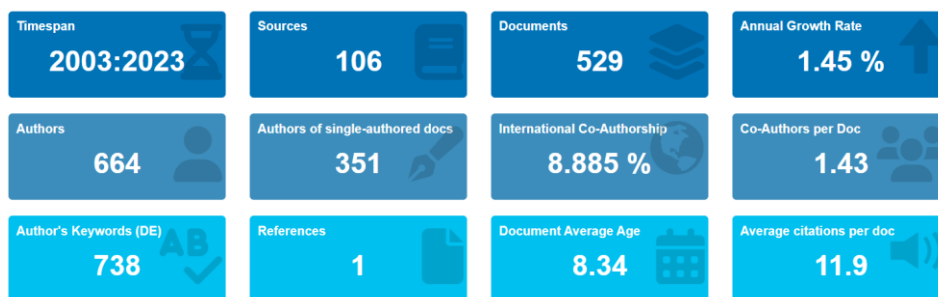
due to the increase in the overall penetration of the e-commerce industry and therefore the need for legal research work has increased with the number of customer cases.

**Figure 1: Number of Articles produced per year**

Year	Articles
2003	6
2004	6
2005	16
2006	8
2007	25
2008	14
2009	15
2010	24
2011	23
2012	37
2013	35
2014	36
2015	36
2016	34
2017	32
2018	31
2019	37
2020	41
2021	35
2022	27
2023	8

As has been defined as a criteria for the research, we have taken the time span of the last 20 years which coincides with the advent and increased penetration of consumer protection in e-commerce as a subject of research. A total of 529 documents were released compounding at an annual growth rate of 1.45% with over 1.4 co-authors per document and average citations of 11.9 per document

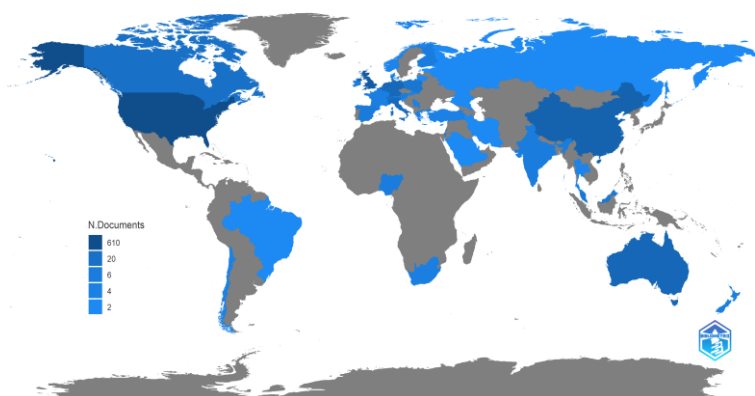
**Figure 2: General information figure**



In figure 3, which is concerned with the country scientific production on the subject, we can see that United States has the highest count while sharing the high density production areas with Australia and China. Whereas figure 4 provides us with the country specific count giving a more detailed account on grounds of the contribution made by specific countries.

**Figure 3: Country Scientific Production**

Country Scientific Production



**Figure 4: Most Cited countries count**

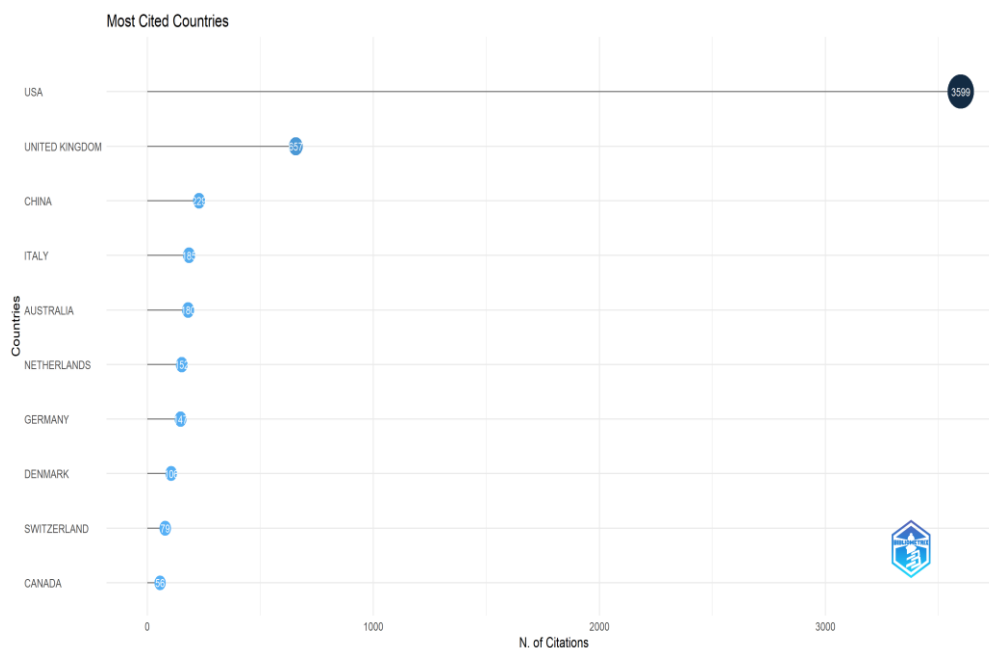
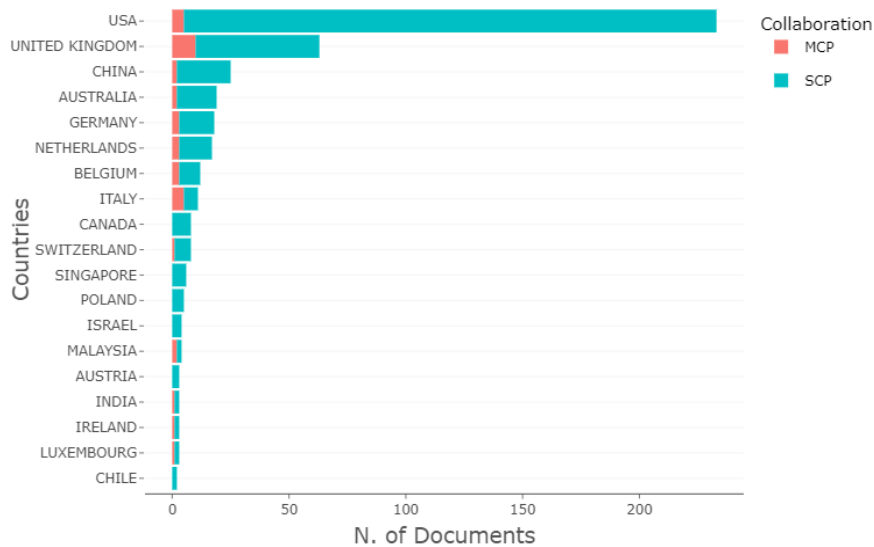


Figure 4 discusses how USA has the highest number of Single and Multiple Author contributions with the number of documents that are way higher than anyone else followed by United Kingdom and China due to the commerce advancements in place and the research teams

realizing that the gap that needs to be filled since it's a new field with no reference to the usual brick and mortar stores.

**Author-Wise Contribution**

**Figure 5: Countries with Multiple country and Single Country production**



In figure 5, we can see that the more prominent authors in this field includes Sunstein with the highest number of citations as its one of the foundational papers for the subject in question while trailed by Khan LM and Barlow that are the second and third highest with a citation count of 354 and 237 respectively.

**Figure 6: Frequency Distribution of Scientific Productivity**

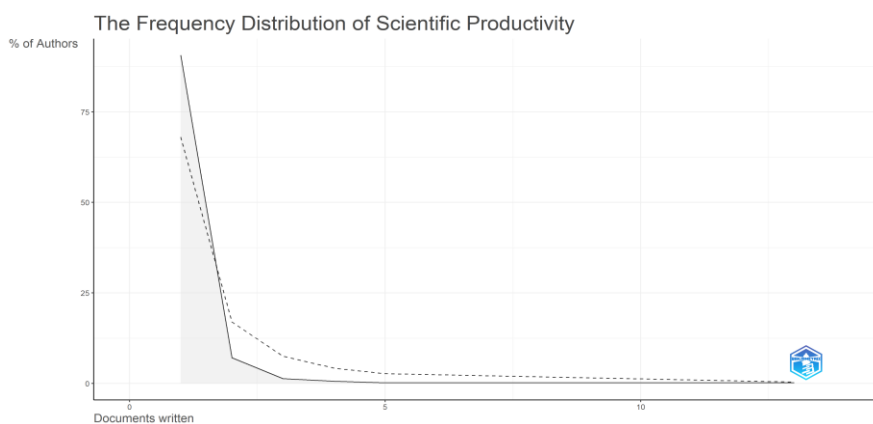


Figure 6 suggests that only about 6% of the authors that have contributed to the subject have written more than 1 article on the subject otherwise the studies can be enhanced further by delving into the nuances involved in customer protection rights including critical matters such as the ownership issues and liability and so forth.

### Citations

**Figure 7: Average article citations per year**

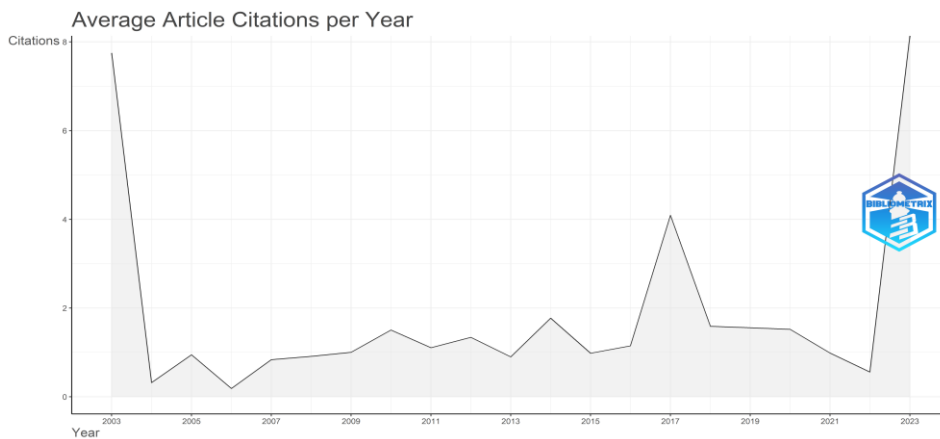
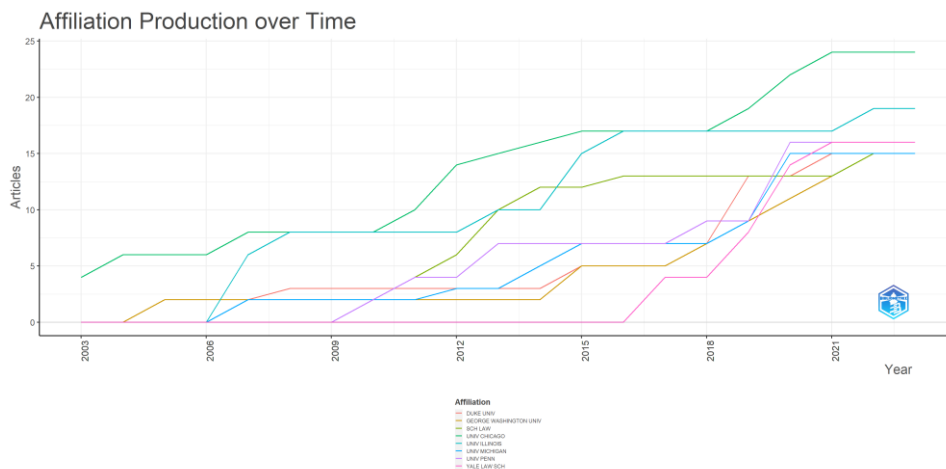


Figure 7 helps us understand how meaningful the contributions each year have been by prominently pointing out how the average citations have steadily increased with one anomaly being 2022, which picked up again in 2023 and the year is still ongoing. This reflects how important the subject in question is and how nuanced the research on this subject can be, potentially now more than ever due to the ever growing e-commerce market and the digital penetration of the internet which enables easier onboarding of customers.

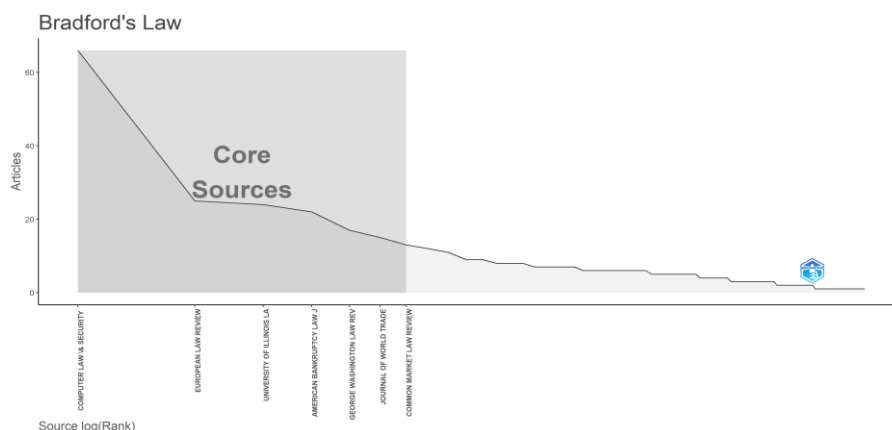
### Sources and Affiliations

**Figure 8: Affiliation Production over time**



In terms of Affiliation University of Chicago consistently ranks higher than its counterparts followed up by University of Michigan, which basically suggests that the entire ecosystem in the United States promotes more research on the subject due to having introduced and leveraged the concept of E-commerce better than the others as of now. This presents the Indian universities with an opportunity to study customer protection rights in the E-commerce sector considering how India is one of the biggest market even by global standards.

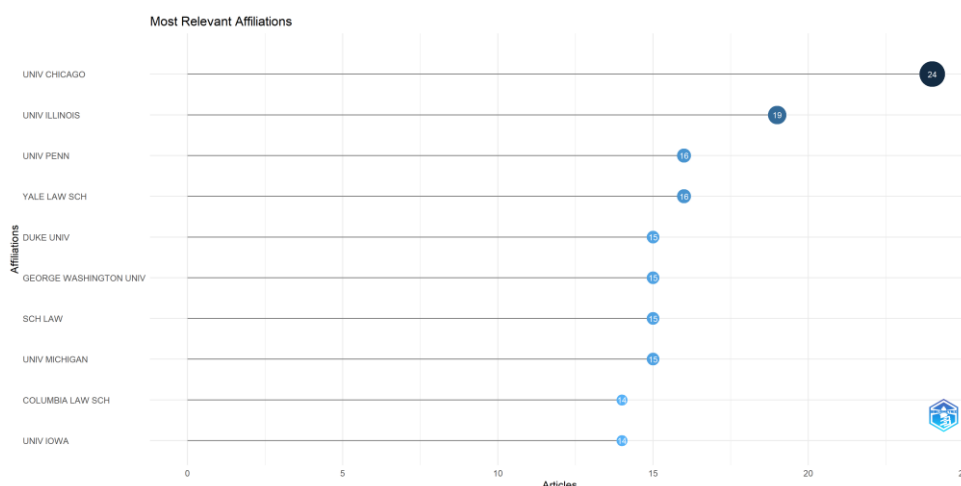
Figure 9: Core source affiliation



Bradford’s Law in terms of the affiliations

In figure 10, we can clearly see that Computer Law and Security along with European Law Review offers to be the core source for a majority of the articles in the sample of the study followed by the University of Illinois.

Figure 10: Most Relevant Affiliations

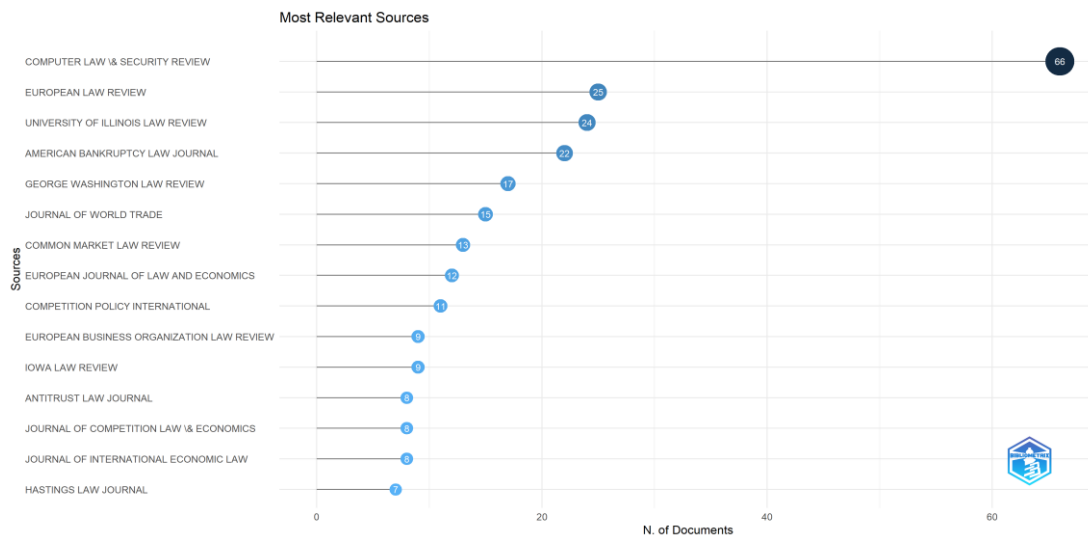




Through Figure 10 we can observe that the University of Chicago, Illinois and Penn which is at par with Yale Law School offer the most relevant affiliation on the subject which substantiates the country-wise contribution made at the top.

Figure 11 however helps us define the most relevant sources for the subject matter at hand. Computer Law and Security Review has the highest single-handed contribution as was in the case of the Bradford Law explanation, which helps us establish the fundamental sources and how things have progressed from then on forward.

**Figure 11: Most Relevant Sources**



**Keywords**

**Figure 12: Cumulative occurrences over the years**

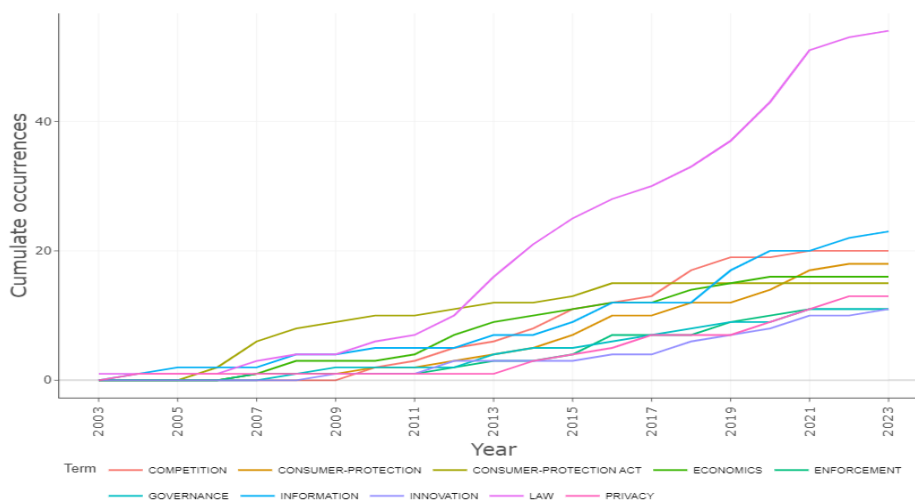




Figure 15: Three field plot

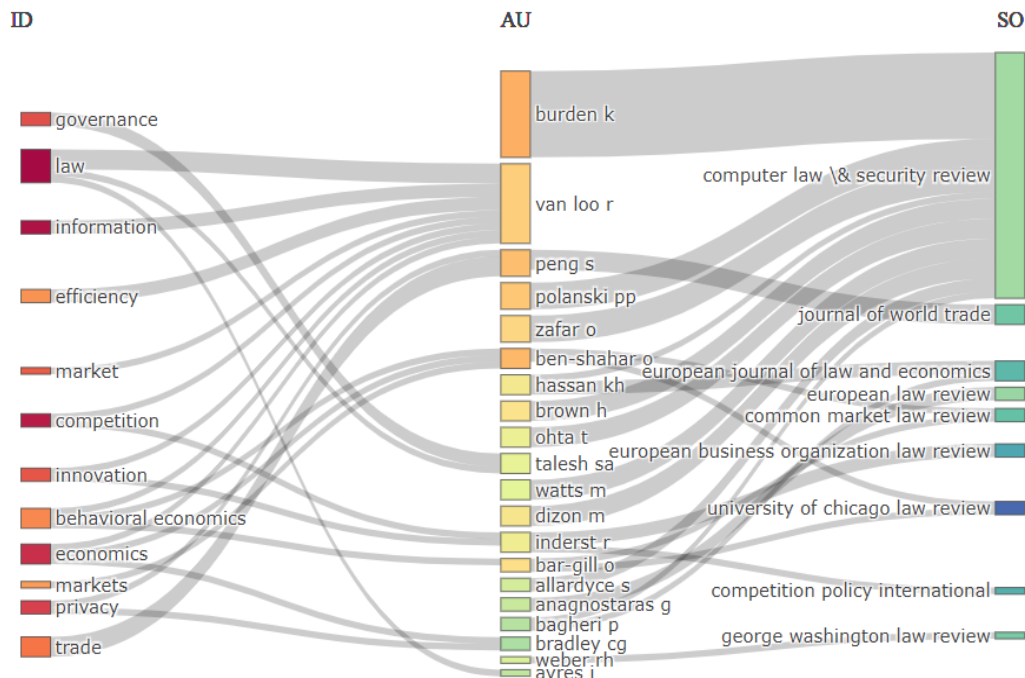
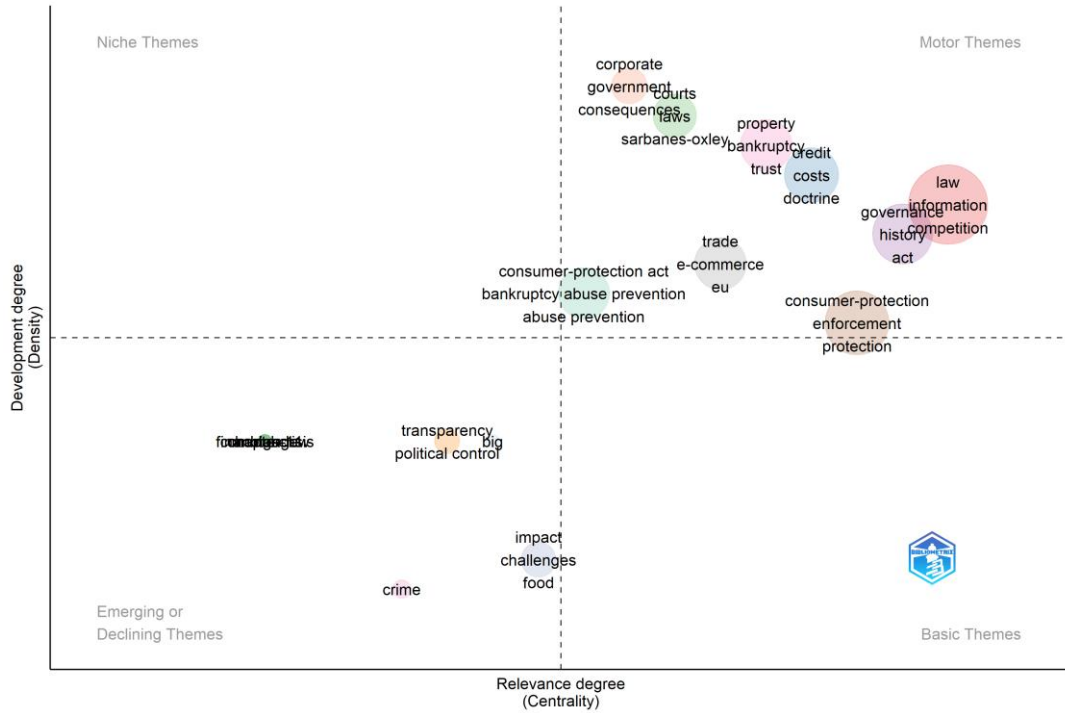


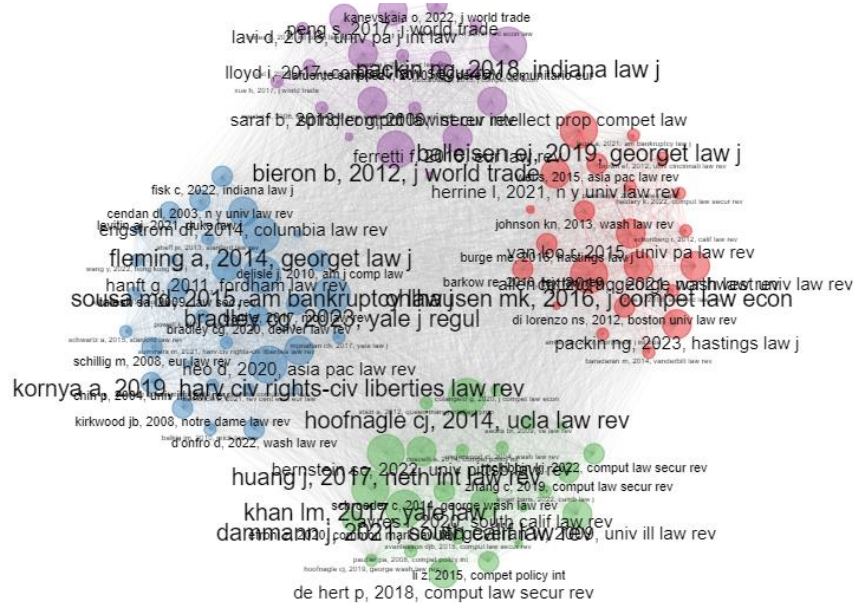
Figure 15 talks about the three field plot between the major themes, Authors and the sources involved in the taken sample of the studies in question. As we can see that a majority of the contributors on the subject extrapolate from the computer law and security review talking about various aspects involving the regulations on e-commerce. The themes involve various concerns within the regulatory framework that need to be studied and have established standards for in order to protect the customers.

Figure 16 talks about the major themes placing them in appropriate quadrants to establish their presence and relevance in today's world. The emerging themes included the broader themes of crime, transparency in transactions and other such challenges. Whereas the motor themes which need to be studied in depth included consumer protection, enforcement of laws, credit and costs doctrines, asset and bankruptcy issues that need to be researched on appropriately in order to protect the customer interests thus revealing the importance of this study.

Figure 16: Major themes emerging from the bibliometrics analysis



Cluster Analysis



Cluster Colour	Prominent Authors	Content Analysis
Sky-Blue	Fleming A. (2014), Fisk C. (2022), Hanft G. (2011), Kornya A. (2019)	This cluster talks about awareness of legal rights. This clusters also talks about the associated concepts such as doctrine of unconscionability, “Right to sue” and “crimsurism”.
Green	Huang JJ. (2021), Hoofnagle CJ. (2014), De Hert P. et. al. (2018), Khan LM. (2017)	This cluster talks about multilateralism and unilateralism in trade and how consumer become vulnerable when focus of the trade shifts from price to cost and how global brands are keeping themselves at the centre of E-commerce.
Orange	Johnson KN. (2013), Di Lorenzo Ns. (2012), Burge M. (2013)	Cluster Orange talks about the central clearing counterparties (CCPS), over the counter clearance and other tools used in financial market and how there is still gap in the existing consumer protection literature. Furthermore, the laws dealing with these digital payments also looks little over the curve.
Purple	Lavi D. (2016), Lloyd I. (2021), Saraf B. (2013)	This cluster talks about the mediation, arbitration and class-actions can be used for consumer right protection. This cluster also argues that different courts around the globe have very uncertain and distinctive approach towards consumer protection therefore it is even more difficult to resolve consumer related disputes in international e-commerce market.

## CONCLUSION

From a legal standpoint, this bibliometric study offers a thorough picture of the present status of research in consumer protection and e-commerce. The results of this study underline the necessity of further investigation in this field and show how crucial consumer safety is in e-commerce.

A significant component of e-commerce that needs legislative attention is consumer protection. This study focused on the legal elements of the subject and conducted a thorough bibliometric review of the literature on consumer protection and e-commerce. The study identified three

key themes in the literature: Online Dispute Resolution, Privacy and Data Protection, and Consumer Protection Laws and Regulations.

The most widely cited article in the topic, "The Digital Consumer" by Benjamin Wright, emphasised the significance of consumer protection laws and regulations. Hans-W. Micklitz, Lucila Aquino-Hernandez, and Florencio Lopez-de-Silanes were notable authors in the area, and the Universities of Cambridge, Harvard, and Oxford had the most impact on society.

Overall, this bibliometric research illuminates key themes, significant figures, key organizations, and well-liked scholarly works in the area of legal consumer protection and e-commerce. The results can serve as a roadmap for future research projects and help develop effective consumer protection laws in the continuously changing e-commerce environment.

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