



Kastamonu Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi
Kastamonu University Journal of Faculty of Economics and
Administrative Sciences

Aralık 2025 Cilt: 27 Sayı:2
iibfdergi@kastamonu.edu.tr

Başvuru Tarihi / Received: 08.12.2024
Kabul Tarihi / Accepted: 14.12.2025
DOI: 10.21180/iibfdkastamonu.1598183

A Bibliometric Analysis of CFPB Research: Directions and Policy Recommendations

Mehmet YEŞİLYAPRAK¹, Ali POLAT², Dzuljastri Abdul RAZAK³

Abstract

In recent years, consumer protection—particularly financial consumer protection—has become a critical pillar of the increasingly interconnected financial ecosystem. Strengthening financial education, literacy, regulatory capacity, and the adoption of fintech solutions collectively underscores the need for a robust and coherent consumer protection framework. In this context, one of the most influential institutions is the U.S. Consumer Financial Protection Bureau (CFPB), a federal agency mandated to ensure fair treatment of financial consumers across all financial institutions. Since its establishment, the CFPB has generated a vast repository of consumer complaints, alongside a steadily expanding body of academic literature. This paper examines the existing literature on the CFPB to better understand its findings, implications, and methodological approaches. It also seeks to identify insights that may inform policymakers in diverse national contexts by leveraging the CFPB's comprehensive consumer complaint data. With nearly four million complaints collected since 2011, this database offers a unique analytical sandbox for empirical exploration. Despite its clear relevance and potential value, however, the CFPB database remains underutilized and insufficiently represented in the academic literature—a gap this study aims to highlight.

Keywords: *Consumer Complaint, CFPB, Consumer Protection, Financial Regulation*

Jel Codes: *D18, G28, D14, O38, G02*

CFPB Araştırmalarının Bibliyometrik Analizi: Eğilimler ve Politika Önerileri

Öz

Son yıllarda tüketici koruması — özellikle de finansal tüketici koruması — giderek daha fazla birbirine bağlanan finansal ekosistemin kritik bir unsuru haline gelmiştir. Finansal eğitim, finansal okuryazarlık, düzenleyici kapasite ve fintech çözümlerinin benimsenmesi gibi alanlardaki ilerlemeler, bütüncül ve sağlam bir tüketici koruma çerçevesine olan ihtiyacı daha da artırmaktadır. Bu bağlamda, tüm finansal kuruluşların tüketicilere adil davranmasını sağlamakla görevli ABD federal kurumu olan Tüketici Finansal Koruma Bürosu (CFPB), alandaki en etkili kurumlardan biridir. Kuruluşundan bu yana CFPB, geniş bir tüketici şikâyet veri tabanı oluşturmuş ve kurum hakkında önemli ölçüde akademik literatür ortaya çıkarmıştır.

Bu çalışma, CFPB ile ilgili mevcut literatürü inceleyerek bulgularını, yöntemlerini ve ortaya koyduğu sonuçları daha iyi anlamayı amaçlamaktadır. Ayrıca, CFPB'nin kapsamlı tüketici şikâyet veri tabanından yararlanarak farklı ülkelerdeki politika yapımcılar için çıkarımlar sunmayı hedeflemektedir. 2011'den bu yana yaklaşık dört milyon şikâyetin toplandığı bu veri tabanı, özgün ve kapsamlı bir ampirik analiz alanı sunmaktadır. Bununla birlikte, açık önemine ve potansiyel değerine rağmen CFPB veri tabanının akademik literatürde yeterince kullanılmadığı ve yeterince temsil edilmediği görülmektedir; bu çalışma, belirtilen boşluğa dikkat çekmeyi de amaçlamaktadır.

Anahtar Kelimeler: *Tüketici Şikâyetleri, CFPB, Tüketicinin Korunması, Finansal Düzenlemeler*

Jel Kodu: *D18, G28, D14, O38, G02*

¹ Sorumlu Yazar/Corresponding Author: Doç. Dr., Beykoz Üniversitesi, İşletme ve Yönetim Bilimleri Fakültesi, İşletme Bölümü, İstanbul, Türkiye. E-Mail: mehmetyesilyaprak@beykoz.edu.tr Orcid no: 0000-0001-8334-5191

² Prof. Dr., Ankara Yıldırım Beyazıt Üniversitesi, Siyasal Bilgiler Fakültesi, İktisat Bölümü, Ankara, Türkiye. E-Mail: alipolat@aybu.edu.tr Orcid no: 0000-0001-6041-5003

³ Doç. Dr., International Islamic University of Malaysia, Kulliyah of Economics and Management Sciences, Kuala Lumpur, Malezya. E-Mail: dzuljastri@iiu.edu.my Orcid no: 0000-0001-6308-8909

INTRODUCTION

Ever increasing speed and volume of financial transactions, together with a complicated financial system, have made consumer protection (CP) very essential for several reasons. CP measures help build trust in the financial system, which is crucial for its smooth functioning. When consumers feel protected, they are more likely to engage with financial institutions and use their products and services (Szustak, 2014). CP policies prevent financial institutions from engaging in unfair, deceptive, or abusive practices (UDAAPs). This ensures that consumers are not exploited and that they receive fair treatment from financial institutions. As Braucher states, (2012) using complicated and nasty terms, an old problem that the law has long struggled to find tools to deal with, buried in long forms, which contain the structures of bad consumer deals. By protecting consumers, these measures also contribute to the overall stability of the financial system (Cull et al., 2012). Consumer defaults and bankruptcies can have ripple effects throughout the economy, so protecting consumers can help prevent broader financial crises (Lukonga, 2015). CP measures can also promote financial inclusion by ensuring that financial services are accessible and fair for all consumers, including those who are traditionally underserved (Johnson, 2019).

The literature on CP and financial CP is vast and varied due to its complicated and transmitting nature. This is not only because of its micro, meso and macro connections, but also because of related theories which are looking into the consumer related matters from different angles. For instance, Information Asymmetry theory suggests that consumers often have less information than financial institutions, which can lead to unfair practices. CP measures often aim to address this asymmetry by requiring financial institutions to provide clear and accurate information about their products and services. Such asymmetry is also a result of the complex structure of financial products, which are hard to understand (Han & Jang, 2013). It is also a matter of discussion whether new financial technology (fintech) solutions create more asymmetry by embedding a lot of technical layers or decrease it. Behavioral Economics, as a field of study, suggests that consumers do not always act rationally when making financial decisions, often due to cognitive biases or lack of understanding. CP measures can help mitigate these issues by providing education and resources to help consumers make informed decisions (Beales et al., 2008). Although it is not necessary, some of the “too good to be true” offers or digital channels for financial consumers are used to defraud financial consumers, which is a topic under behavioral economics. Market Failure Theory suggests that markets do not always operate efficiently or fairly on their own, and that government intervention is sometimes necessary to protect consumers. However, as Mitchell and Simmons (2021) indicate, the traditional view through the modern theory of public choice is not enough, and a unified, powerful perspective on the market process, property rights, politics, contracts, and government bureaucracy is required.

As we see there are different strands of literature, and CP in financial markets is at the heart of the system. There are also other related topics to extend the issue. For instance, improving financial literacy, the ability of consumers to understand and use financial information, is often a key component of CP. Regulation and supervision, the rules and oversight that govern financial institutions and their interactions with consumers are also at the heart of many problems. In the case of measures taken to the best capacity, may still, financial consumers, be treated unfairly by a financial institution prompting prompting consumers to seek remedies. This leads us to access to redress for financial consumers. How it is possible and how much time it takes to achieve redress is another concern.

In order to handle the financial consumers' problems in the context of the given topics mentioned above, the CFPB, a pivotal U.S. government agency, was established with the primary objective of securing that depository or non-depository financial institutions treat consumers fairly. The inception of the CFPB was a direct response to the 2008 financial crisis, a period marked by a significant downturn in the economy, leading to widespread consumer distress. The financial crisis underscored the need for an agency that would protect consumers in the financial sector, leading to the creation of the CFPB under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (CFPB, 2014).

The CFPB's mandate includes enforcing CP laws, taking consumer complaints, promoting financial education, researching consumer behavior, monitoring financial markets for new risks to consumers, and enforcing laws that outlaw discrimination and other unfair treatment in consumer finance. The agency has been instrumental in shaping the landscape of consumer finance, and its actions and policies have had far-reaching implications, not just within the U.S., but also influencing consumer finance practices globally (CFPB, 2014). There are also some critics who claim that the approach of the CFPB creates legal uncertainty among firms and reduces the availability of financial services. Among the criticisms are the burdensome supervision that diverts resources from particularly smaller financial institutions (Fuster et al., 2018). Although the core of this paper is not to criticize the Bureau, such critiques are also important. If too strict CP regulations are in place, they may hinder the development of financial institutions. Therefore, we can say that the rule of *primum non nocere* "first, do no harm," is not only a principal precept of bioethics, but also of financial markets, whether on be at the fund supplier side or the fund user side.

Given the significant role of the CFPB, it has been the subject of extensive scholarly attention, with a diverse range of literature examining various aspects of the agency and its impact. This literature encompasses a broad spectrum of research, including legal analyses of the CFPB's regulatory actions, economic studies on the effects of its policies on the financial markets, sociological investigations into its impact on consumer behavior, and political science research on its role within the broader U.S. government structure. Meanwhile, analyzing the data of financial consumers requires visualization and big data analysis together with artificial intelligence (AI) techniques. Therefore, there are computer science related strand of literature looking at this database too.

This paper has several objectives to reach. First, it explores the CFPB literature to understand key themes, findings, and gaps in the related strands of literature. Second, it analyzes the CFPB database of consumer complaints comprising almost 4 million entries with many variables. By this, pattern identification, trends, and insights will be available on consumer issues in the financial sector. The third objective is to understand the role of the CFPB and it impacts on CP. Such discussions will expose us to the bureau's actions, financial education related initiatives, and other efforts to ensure fair treatment of consumers by financial institutions. Fourth is to gain insights regarding policy decisions for CP. For this, literature review and database analysis should be translated into practical recommendations for policymakers, both in the U.S. and in other countries. Last but not least, the fifth objective is to highlight the underutilization of the CFPB Database in the literature. We advocate for its increased use in future research, as it is a rich source of data for studying financial CP issues.

This article consists of four sections. After the introduction, the methodology is discussed in the second section. The third

section is the analysis section and provides a detailed analysis of the literature together with discussions. The last section concludes with the findings and recommendations.

1. METHODOLOGY

This study aims to map the intellectual structure of the literature related to the CFPB by employing bibliometric analysis. Bibliometrics is a technique used to examine information from various well-established scholarly databases (Narin et al., 1994). The outcome of this technique is utilized for strategic decision making after extracting, arranging, cleaning, and analyzing the data (Firdaus et al., 2019). Scientometric, “I” and “B” should be lowercase are three related terms in metrology, and we can see a convergence among these terms (Siluo & Qingli, 2017). Therefore, they can be used interchangeably in the context of this article. Meanwhile, scientometrics is the science that helps measure research quality and impact, understand citation processes, conduct scientific mapping, and utilize indicators in research policy and management (Ruiz-Rosero et al., 2019). Bibliometric methods are particularly useful for large-scale literature reviews and for identifying trends and patterns in a body of literature. They can help identify the most frequently cited authors and works, trace the development of research themes over time, and reveal the interconnections between different research areas (Ruiz-Rosero et al., 2019).

The academic literature on the CFPB will be examined in the context of this study using bibliometrics to determine its volume, authors, publishing sources, and citation information. This will entail a thorough analysis of the content in two well-known databases, Scopus and Web of Science (WoS). Because CFPB research is multidisciplinary, the study will touch on a range of academic fields. In addition, it will emphasize the connections between authors, pieces of writing, and research subjects, giving readers a thorough understanding of the academic debate around the CFPB. Future research in this field will be built on an understanding of the CFPB's effects on consumer finance and the larger financial sector. Scholars, decision-makers, and practitioners will benefit from this mapping of the CFPB research field's intellectual environment. For academics, it will highlight the key texts and authors in the area, assisting in the direction of further study. It will provide a thorough review of the research on the CFPB for decision-makers and practitioners, assisting in informing both policy and practice. As a result, this bibliometric analysis will offer a comprehensive and in-depth summary of the literature pertaining to the CFPB. For everyone interested in the CFPB and its role in consumer finance, it will highlight the major topics, influencers, and trends in this body of study.

For the purpose of our study, we employed a two-step process to gather comprehensive and accurate bibliometric information. Initially, we selected mentioned two reputable databases as our sources of information. These databases are repositories of a vast array of influential research publications spanning various fields. In the subsequent step, we honed our search to concentrate specifically on the social sciences category. This approach ensured a more holistic and relevant dataset. To ascertain the desired outcomes, we utilized various filters during the search process. The databases were searched using specific related keywords from the period of 2011 to 2023, as of 16 July 2023. In our search criteria in Scopus, we used the following query;

Search within Article title, Abstract, Keywords for “consumer AND financial AND protection AND bureau” and search within Article title, Abstract, Keywords for “cfpb.”

We ensured that the literature extracted from the Scopus database was directly relevant to the CFPB context. The combination of the two search criteria yielded 121 results. However, a manual review revealed that 14 out of the 121 articles were irrelevant. This highlights the importance of conducting manual verification rather than relying solely on automated search outcomes.

For the Web of Science (WoS), the following search query was applied:

Consumer Financial Protection Bureau (All Fields)

Refined by: NOT Publication Years: 2003–2010

NOT Citation Topics Meso: (Irrelevant disciplines such as autism, breast cancer, virology, etc., were manually excluded).

In the merging and analysis process, we adopted an approach similar to Echchakoui (2020). Prior to running the analysis, the two datasets were combined, and 40 duplicate publications were removed.

In bibliometric research, the *Biblioshiny* package for R is widely used to analyze and visualize scientific literature (Aria & Cuccurullo, 2017). This tool is particularly effective for bibliometric analyses of publications indexed in databases such as Scopus and WoS. In the following sections, several features of *Biblioshiny* will be employed⁴.

2. ANALYSIS

After merging both datasets and verifying the completeness of the bibliographic metadata, it was observed that key variables such as author, document type, journal, language, publication year, title, and total citations were free of missing values and thus provided an excellent basis for analysis. Although certain fields, including abstract, affiliation, and corresponding author information, contained some missing entries, the level of completeness remained acceptable and sufficient for inclusion in the analysis.

In total, the dataset comprised 188 documents derived from 125 different sources and authored by 327 individuals. The predominant language of publication was English, and the primary document types included journal articles, early-access publications, book chapters, conference papers, proceedings, and review papers.

Table 1: Descriptive Information on Data

MAIN INFORMATION ABOUT DATA	
Timespan	2010:2023
Sources (Journals, Books, etc)	125
Documents	188
Annual Growth Rate %	16,15
Document Average Age	5,42
Average citations per doc	7,202
References	1
DOCUMENT CONTENTS	
Keywords Plus (ID)	356

⁴ Future research could be extended by incorporating additional databases for citation and bibliometric analysis, such as Google Scholar, Microsoft Academic, and Dimensions, in order to provide a broader perspective on CFPB-related studies. As noted by Martín-Martín et al. (2021), Microsoft Academic and Dimensions offer strong alternatives to Scopus and WoS in terms of coverage. Although Google Scholar provides even wider coverage, the quality of its metadata is relatively low, and data extraction remains challenging.

Author's Keywords (DE)	302
AUTHORS	
Authors	327
Authors of single-authored docs	86
AUTHORS COLLABORATION	
Single-authored docs	98
Co-Authors per Doc	1,91
International co-authorships %	4,255
DOCUMENT TYPES	
Article; early access	122
Book	9
Book chapter	23
Conference paper	6
Editorial and editorial material	3
Note	3
Proceedings paper	2
Review	20

Source: Created by the researcher using the Bibliometrix software.

The annual scientific production of articles exhibits notable fluctuations over time. Research output related to the CFPB shows marked increases in 2010, 2015, and particularly after 2018. The rise observed in 2018 may be partly attributed to the financial crises during that period. Notably, the year 2010 stands out with a mean total citation count of 119 per article, whereas the 14-year average citation rate for articles published in 2010 is 8.5. Based on this information, the following table can be interpreted to suggest that, despite the significance of this topic, the overall citation levels across years remain relatively low.

Table 2: Average Citations Per Year

Year	MeanTCperArt	N	MeanTCperYear	CitableYears
2010	119	2,00	8,50	14
2011	3,17	6,00	0,24	13
2012	10,21	14,00	0,85	12
2013	3,82	11,00	0,35	11
2014	4,53	17,00	0,45	10
2015	12,29	7,00	1,37	9
2016	4,7	10,00	0,59	8
2017	11,47	19,00	1,64	7
2018	4	10,00	0,67	6
2019	9,82	28,00	1,96	5
2020	5,39	18,00	1,35	4
2021	2,06	16,00	0,69	3
2022	1,81	16,00	0,90	2
2023	0,71	14,00	0,71	1

Source: Created by the researcher using the Bibliometrix software.

2.1. Three – Field Plot

A three-field plot, also known as a tri-plot, is a type of visualization used in bibliometric analysis to represent the relationship between three bibliometric indicators. It's a three-dimensional scatter plot that allows researchers to observe and analyze the interplay between these three indicators. By visualizing these relationships in a three-dimensional space, a three-field plot can help researchers identify patterns, trends, and outliers that might not be apparent when looking at the indicators separately. It can also help researchers compare the performance of different entities across multiple dimensions simultaneously.

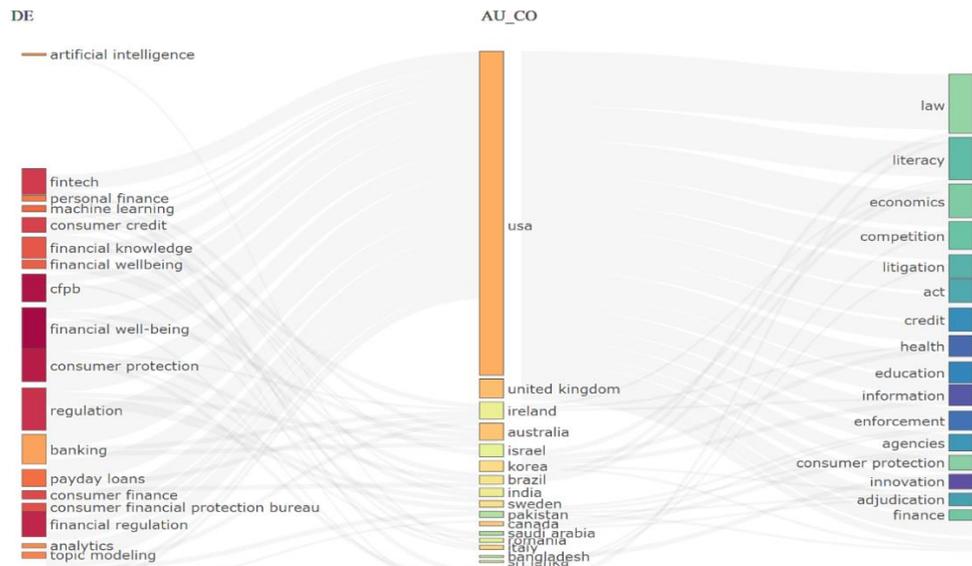


Figure 1: Three Field Plot: Key Words, Countries, Key Word Plus

Source: Created by the researcher using the Bibliometrix software.

The above chart provides the countries at the center, while on the left Side are keywords and on the right side are field keywords, plus data is available. As can be seen, the USA holds the main body of the literature while covering almost all issues in terms of keywords. Changing the plot variable order, we see a different approach again, where the USA literature is connected to all keywords; some of these keywords are clustered with specific areas. For instance, some US research about CFPB regulation is related to literacy and law, while some is related to innovation.

2.1.1. Most Relevant Sources

The data provided gives an insightful overview of the spread of CFPB-related articles across various journals. The highest number of articles appears in the 'Banking Law Journal' and the 'Journal of Consumer Affairs,' each with eight entries. This correlation is fitting, as the CFPB's primary objective revolves around ensuring CP in the financial sector, naturally aligning with the content focus of these two journals.

Interestingly, the occurrence of CFPB-related articles in broad-spectrum law reviews, such as the 'California Law Review,' 'Columbia Law Review,' and 'George Washington Law review,' among others, suggests the considerable impact of CFPB regulations and activities on legal discussions and practices. On the other hand, the presence of CFPB-focused articles in specialized publications like 'The Consumer Financial Protection Bureau: Overview and Analyses' and 'Fair Debt Collection Practices Act: Overview, Analyses, and Administration' highlights the in-depth exploration of the Bureau's role in specific

sectors of consumer finance. Journals like the 'Journal of Family and Economic Issues' and 'Housing Policy Debate' publishing CFPB-related pieces indicate the Bureau's far-reaching effects on diverse areas such as family economics and housing policy.

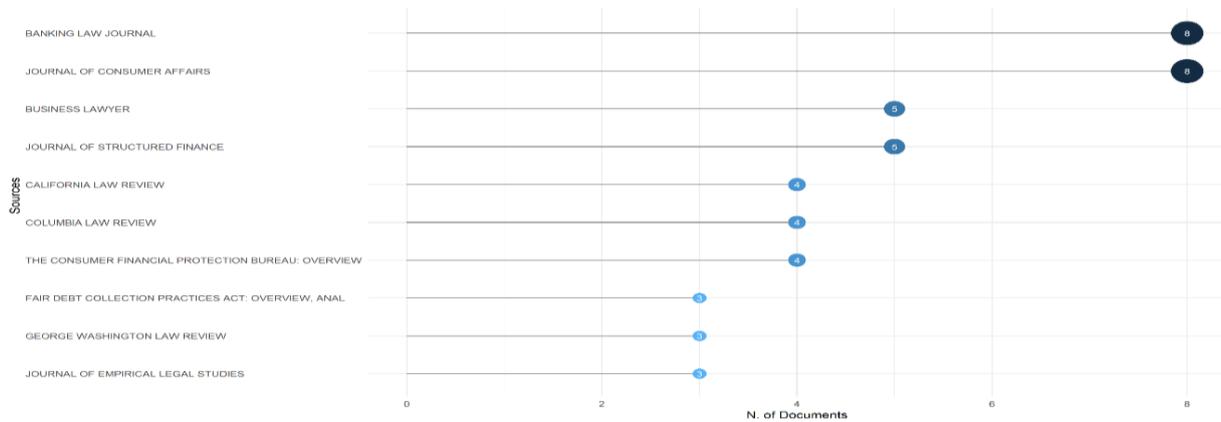


Figure 2: Most Relevant Sources

Source: Created by the researcher using the Bibliometrix software.

The distribution of these articles shows a broad academic and practical interest in the activities of the CFPB, not only in legal or financial contexts, but also within broader socio-economic perspectives. This diversified spread underlines the CFPB's multidimensional impact, drawing attention from various academic circles, and emphasizes the Bureau's critical role in shaping dialogues and policies in consumer finance protection.

2.1.2. Core Sources by Bradford's Law

Bradford's Law is a pattern first described by Bradford (1934) that estimates the exponentially diminishing returns of extending a library search. The law divides sources into three zones, with each zone containing a third of all publications. The first zone contains the fewest sources, but they account for a third of all publications. The second zone contains more sources but still only accounts for a third of all publications, and so on.

In Figure 3, the sources are ranked based on their frequency of occurrence, with the 'Banking Law Journal' and 'Journal of Consumer Affairs' being the most frequently occurring sources, each appearing eight times. These sources, along with others up to the 'Catholic University Law Review,' fall into Zone 1, indicating that they are the most critical sources for this particular research area. These sources are likely to be the most influential and relevant to the topic at hand.

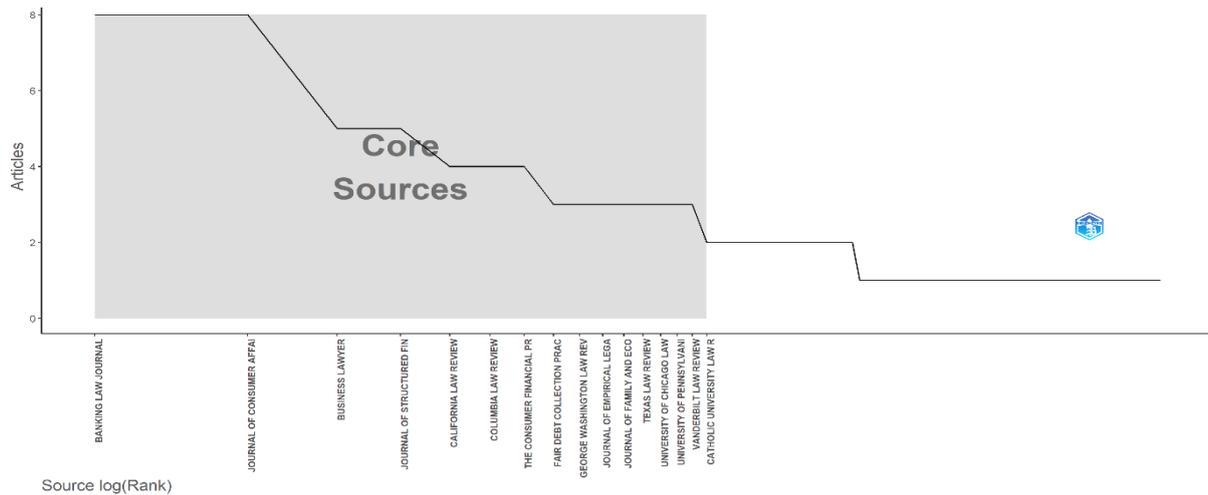


Figure 3: Core Sources by Bradford's Law

Source: Created by the researcher using the Bibliometrix software.

Figure 3 displays a variety of sources on a certain topic, ranging from "Cityscape" to "Journal of Consumer Research," which are considered to contribute significantly to the body of knowledge. The variety of issues covered serves as an illustration of the research's multidisciplinary character. This implies that the subject is being investigated from several viewpoints, producing a varied and worthwhile body of writing.

2.1.3. Most Relevant Authors

Table 3 provides a thorough breakdown of the top researchers in the field of the CFPB, including their total number of publications as well as a fractionalized count of their works. The fractionalized count accounts for an author's contribution even when they are a member of a research team by considering the number of co-authors on each article. Therefore, this statistic offers a more realistic depiction of the significance of a writer's contribution to the area.

Table 3: Most Relevant Authors

Authors	N# of Articles	Articles Fractionalized
LEE J	6	1,87
NA N	6	6,00
CARPENTER D	5	3,50
VAN L R	4	4,00
SARIN N	3	2,50
BRYCE M	2	0,67
COOPER C	2	1,50
COPELAND C	2	1,33
DRAHOZAL C	2	1,00
GARVEY T	2	1,00

Source: Created by the researcher using the Bibliometrix software.

The table reveals that Lee J and Na N have authored the highest number of articles, amounting to six each. Upon examining the fractionalized count, it becomes evident that Na N possesses a significantly higher score (6.00) in contrast to Lee J (1.87). This discrepancy suggests that Na N exhibits a greater proportion of sole or first authorship in comparison to Lee J. Carpenter and Van L demonstrate noteworthy contributions, particularly Carpenter, who exhibits a higher fractionalized

count (3.50) relative to their total articles (5), indicating a considerable level of collaborative engagement.

The fractionalized counts pertaining to Bryce M, Copeland C, and Drahosal C exhibit numerical values lower than their respective total article counts, thereby suggesting a propensity for these authors to frequently engage in collaborative research endeavors.

In general, this table presents a comprehensive perspective on author productivity, considering not only the overall quantity of output but also the characteristics of collaborative efforts. This tool serves as a valuable resource for comprehending the collaborative dynamics within CFPB-related research and discerning the primary contributors within the field.

The data exhibits a clear adherence to Lotka's Law as well. Lotka's (1926) Law in the field of bibliometrics elucidates the pattern of publication frequency exhibited by authors within a specific domain. The study revealed that a significant majority (94.2%) of authors had a single publication to their name. A small proportion (4.3%) of authors had published two documents, while an even smaller percentage had three or more publications. This observation indicates that within this specific domain of research, there exists a substantial proportion of authors who make a modest contribution in terms of published papers, while a minority of authors make a significant contribution by producing a considerable number of papers.

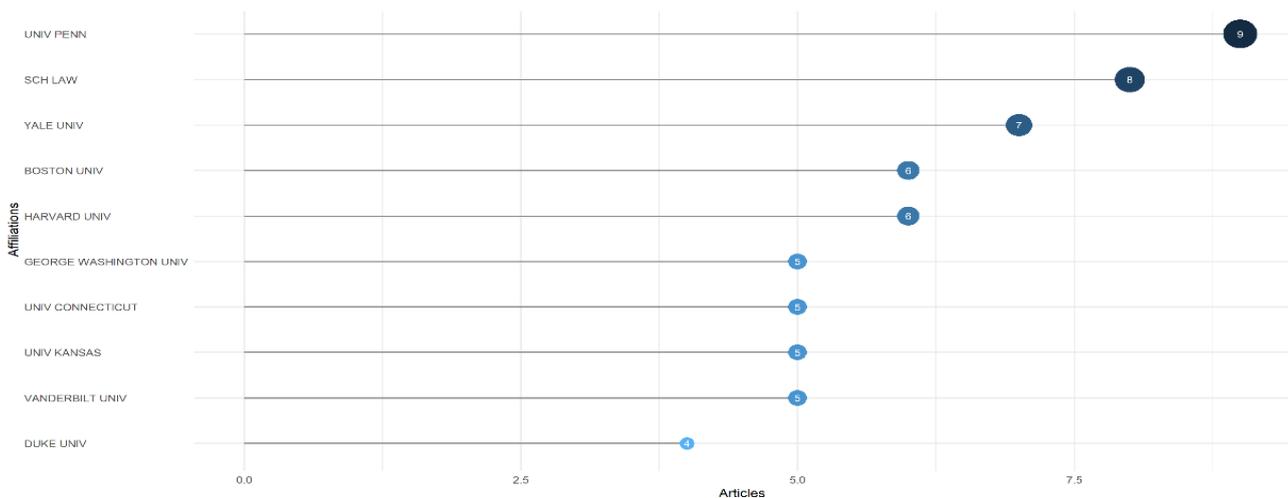


Figure 4: Affiliation of the Sources

Source: Created by the researcher using the Bibliometrix software.

Figure 4 represents the most relevant affiliations in relation to research on the CFPB. It lists the universities or institutions (affiliations) that have produced the most articles on this topic. From an academic perspective, this table provides insights into the academic landscape of CFPB-related research. It suggests that certain institutions have a particular focus or strength in this area of study. For example, the University of Pennsylvania (UNIV PENN) appears to be the most prolific, with nine articles related to the CFPB. This is closely followed by the School of Law (SCH LAW) with eight articles and Yale University with seven articles.

The presence of law schools and universities known for their strong law programs (such as Yale University, Boston University, and Harvard University) is notable. This suggests that the CFPB, being a regulatory agency, is a significant topic of interest in legal studies.

It's also worth noting that research on the CFPB is not concentrated in a single institution but is spread across various universities across the country. This indicates a broad academic interest in the CFPB and its role in consumer finance.

2.1.4. Countries' Production over Time

The provided visual representation illustrates the longitudinal perspective of the production of research articles pertaining to the Consumer Financial Protection Bureau (CFPB) across various countries, spanning the time period from 2010 to 2023. It is evident that the United States, as the birthplace of the Consumer Financial Protection Bureau (CFPB), exerts significant influence over the generation of research in this field, as evidenced by a consistent growth in the quantity of scholarly articles over time. This observation indicates an increasing inclination and concentration on matters pertaining to consumer financial protection within the nation.

The United Kingdom, Italy, Malaysia, Australia, Korea, and Canada also make contributions to the body of research, although their contributions are comparatively limited. The observed surge in articles originating from Malaysia in 2016 is noteworthy, as it potentially signifies a distinct occurrence or alteration in policy that stimulated interest in the Consumer Financial Protection Bureau (CFPB).

Nonetheless, it is worth noting that the CFPB, as a regulatory entity based in the United States, may not be the central subject of investigation in consumer finance research conducted in countries other than the USA, as the collective input from these nations is comparatively limited. However, the contributions made by the CFPB demonstrate the global significance of the issues it tackles.

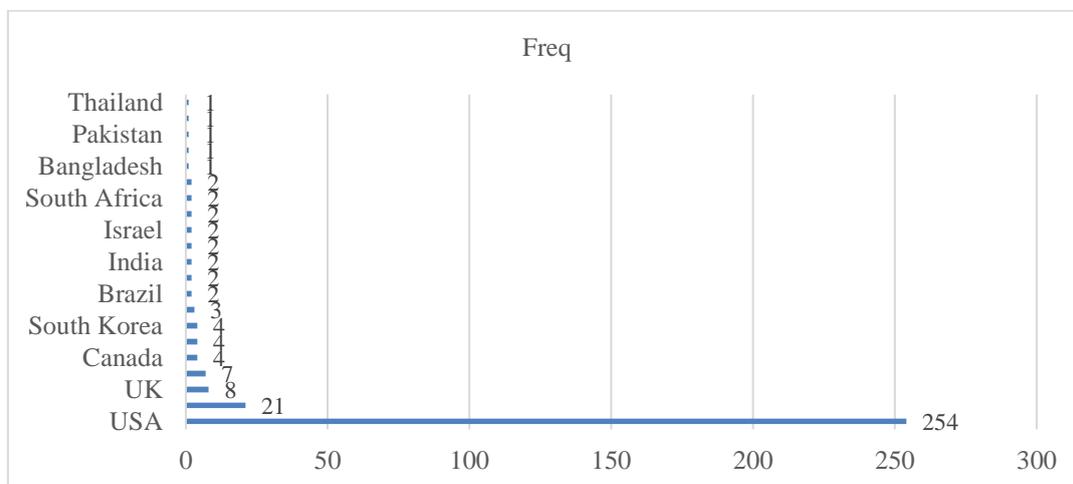


Figure 5: Country's Scientific Production

Source: Created by the researcher using the Bibliometrix software.

This data can be useful for understanding the global landscape of CFPB-related research and identifying trends and shifts in research focus over time. It also highlights potential opportunities for further research and collaboration in countries where the output is currently low.

2.1.5. Most Cited Countries

Table 4 lists various countries along with the total citations (TC) their CFPB-related research has received and the average number of citations per article.

From the table, it's clear that the USA has the highest total number of citations (984), which is not surprising given that the CFPB is a U.S. agency and likely the focus of much research in the country. However, when we look at the average article citations, which gives a measure of the impact of the average article from each country, Australia leads with 33 citations per article, suggesting that while Australia may produce fewer articles on the CFPB, those articles tend to be highly influential or impactful.

Table 4: Most Cited Countries

Country	TC	Average Article Citations
USA	984	10,80
AUSTRALIA	99	33,00
KOREA	28	14,00
SWEDEN	17	8,50
FRANCE	10	10,00
ITALY	8	4,00
INDIA	6	3,00
SOUTH AFRICA	6	6,00
UNITED KINGDOM	5	5,00
BRAZIL	4	2,00

Source: Created by the researcher using the *Bibliometrix* software.

Korea also stands out with an average of 14 citations per article, indicating a high impact per article, even though the total number of citations is relatively low (28). This suggests that Korean research on the CFPB, while not as voluminous, is well-regarded or influential in the field.

Sweden, France, and South Africa also show a good balance between total citations and average article citations, indicating a consistent level of impact across their CFPB-related research.

On the other hand, countries like Italy, India, the UK, and Brazil have lower average article citations, suggesting that their CFPB-related research may not be as influential or widely cited as that of some other countries.

Overall, this table provides a snapshot of the global impact of CFPB-related research. It highlights the countries whose research is having the most influence, as measured by citations, and can help identify trends and potential areas of focus for future research.

2.1.6. Most Cited Documents

Table 5 lists the most cited papers in the field of CFPB-related research, along with their total citations, total citations per year (TC per Year), and normalized total citations (Normalized TC).

Barkow (2010)'s paper has the highest total citations (238), indicating that it has been highly influential in the field. However, its normalized total citations (2.00) are relatively low, suggesting that its impact, while significant, is spread over a longer period (since 2010). Bastani et al. (2019) have a high total citation count (98) and the highest normalized total citations (9.98), indicating that it has had a significant impact in a relatively short period. Its high TC per Year (19.60) also suggests that it is currently very influential in the field. Gilles and Friedman (2012) and Jung et al. (2017) have high total citation counts (82 and 73, respectively) and relatively high normalized total citations (8.03 and 6.36, respectively),

indicating that they have been influential in the field. Van Loo (2017, 2019) papers have lower total citation counts but still respectable TC per Year and normalized total citations, indicating that they have been impactful in recent years.

Papers of Schwarcz (2014), Willis (2015), Park and Cardie (2019) and Lee et al. (2020) have lower total citation counts, but their TC per Year and normalized total citations suggest that they have been influential in their respective years of publication.

Overall, this table provides a snapshot of the most influential papers in CFPB-related research, as measured by citations. It highlights the papers that have had the most impact on the field, both in terms of total citations and recent influence. This can be useful for researchers looking to understand the key works in this area of study.

Table 5: The Most Cited Documents

Paper	Citations	Total Citations	TC per Year	Normalized TC
BARKOW RE, 2010, TEX LAW REV	(Barkow, 2010)	238	17,00	2,00
BASTANI K, 2019, EXPERT SYS APPL	(Bastani et al., 2019)	98	19,60	9,98
GILLES M, 2012, UNIV CHIC LAW REV	(Gilles & Friedman, 2012)	82	6,83	8,03
JUNG K, 2017, J CONSUM RES	(Jost et al., 2017)	73	10,43	6,36
VAN LOO R, 2017, DUKE LAW J	(Van Loo, 2017)	39	5,57	3,40
VAN LOO R, 2019, COLUMBIA LAW REV	(Van Loo, 2019)	32	6,40	3,26
PARK J, 2019, LREC - INT CONF LANG RESOUR EVALUATION	(Park & Cardie, 2019)	31	6,20	3,16
WILLIS LE, 2015, UNIV CHIC LAW REV	(Willis, 2015)	31	3,44	2,52
SCHWARCZ D, 2014, UCLA LAW REV	(Schwarcz, 2014)	28	2,80	6,18
LEE JM, 2020, J FAM ECON ISS	(Lee et al., 2020)	28	7,00	5,20

Source: Created by the researcher using the *Bibliometrix* software.

2.1.7. Most Frequent Words

The presented terms and their frequencies, derived from various articles and research related to the CFPB, offer valuable insights into the prevalent discourses surrounding consumer financial protection. The terms can be thoughtfully grouped into a few significant categories, highlighting the multifaceted nature of this complex field.

The first cluster revolves around the legal and regulatory aspects of CP, as suggested by the prevalence of terms such as "law" (11 occurrences), "consumer protection" (8 occurrences), "litigation" (4 occurrences), "act" (3 occurrences), and "adjudication" (3 occurrences). These terms indicate the integral role of legal frameworks in CP, perhaps discussing the role of legislation in establishing standards, the process of enforcement, and the adjudication of consumer disputes.

Another grouping draws attention to the economic and financial contexts, as inferred from "economics" (6 occurrences), "finance" (6 occurrences), "competition" (5 occurrences), "credit" (3 occurrences), and "market" (3 occurrences). The inclusion of terms such as "debt" (2 occurrences) and "debt collection" (2 occurrences) underscores issues likely associated with credit provision and debt management. "Behavioral economics" (2 occurrences) might suggest a focus on the psychological factors influencing economic decisions of consumers, potentially revealing discussions about rationality, decision-making, and financial behaviors in the context of CP.

A third interesting theme centers on technology and data analysis, with terms like "embeddings" (3 occurrences), "natural language processing systems" (3 occurrences), "topic modeling" (3 occurrences), and "data mining" (2 occurrences). These point towards an exploration of computational methodologies, probably aimed at understanding consumer behavior, analyzing complaints, or making sense of large datasets related to CP.

Finally, the presence of terms such as "education" (3 occurrences), "literacy" (4 occurrences), and "financial education" (2 occurrences) highlights the importance of consumer education and awareness as a crucial aspect of CP. This also aligns with the appearance of "consumer complaints" (2 occurrences), possibly suggesting investigations into how informed consumers are about their rights and how they can assert them.

Taken together, these clusters reveal a broad academic interest in the complex interplay between legal systems, economic dynamics, technological advancements, and educational initiatives in the context of consumer financial protection. They underscore the critical need for a comprehensive and interdisciplinary approach to effectively protect consumers in financial markets.



Figure 6: Word Cloud of the Key Words

Source: Created by the researcher using the Bibliometrix software.

Above Figure is also another method of visualizing the key words depending on how many times they are used. This Figure also illustrative of the literature and how the discussions are going on.

2.1.8. Tree Map

The TreeMap represents hierarchical data in the form of nested rectangles. Words provided in the Figure represent the most frequently occurring terms in the body of literature related to the CFPB and its associated research. The frequency of these terms indicates their prominence or significance in the research.

Terms like "law, consumer protection, economics, and finance," appearing with high frequency is expected given that the CFPB is a regulatory body focused on CP in the financial sector. These terms likely relate to the legal framework within which the CFPB operates, the economic implications of its policies, and the financial contexts it influences.

The term "competition" could refer to the competitive dynamics among financial institutions that the CFPB regulates, while "literacy" and "education" likely relate to financial literacy and education, which are key aspects of CP.

The terms "litigation," "act," "adjudication," "agencies," "enforcement," and "legal" indicate a concentration on the legal procedures and entities associated with safeguarding consumer rights. The terms "credit," "debt," and "debt collection" are indicative of significant financial concerns encountered by consumers, which are effectively tackled by the CFPB.

pronounced emphasis on matters related to safeguarding consumer interests. This phenomenon may be attributed to the increasing acknowledgment of the significance of safeguarding consumers within the realm of financial services.

The discipline of economics has consistently been associated with the term 'economics' since 2013, indicating its relevance in addressing the economic aspects of the issues tackled by the CFPB. The observed frequency of this particular term indicates a consistent level of interest in examining the economic ramifications associated with safeguarding consumer finances.

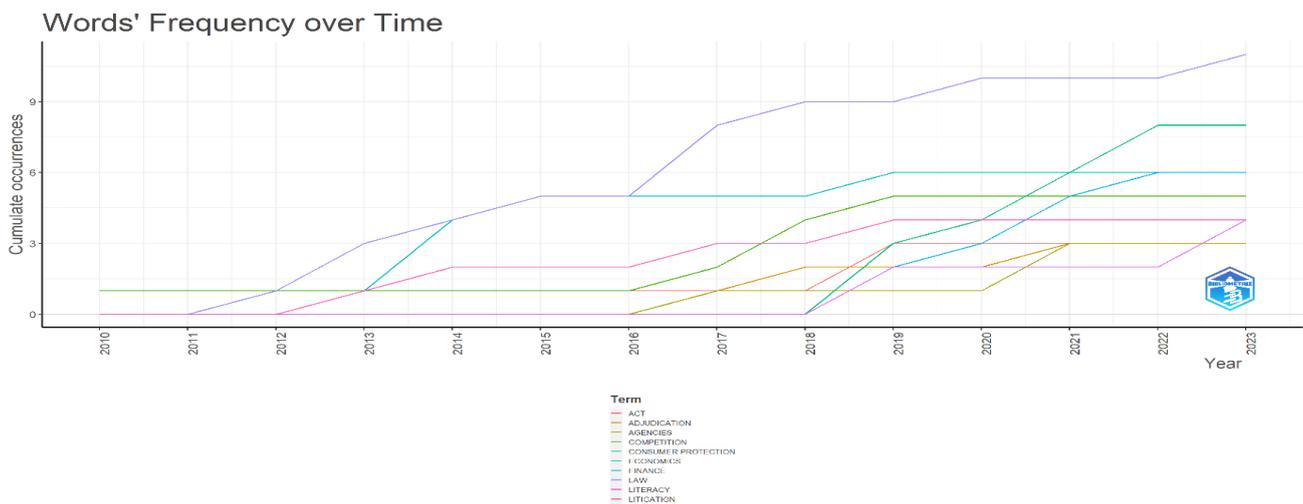


Figure 8: Words' Frequency over Time

Source: Created by the researcher using the Bibliometrix software.

The usage of the term 'finance' has exhibited an upward trend since 2019, indicating an increasing emphasis on matters pertaining to CP within the financial domain. This observation may indicate a growing inclination towards the financial products and services subject to regulation by the CFPB.

The concept of competition has been consistently observed since 2010, with a discernible surge in occurrence in 2018. This observation may indicate an emphasis on the competitive dynamics within the financial sector and the significance of competition in safeguarding consumer interests.

The term 'literacy' has gained increased prominence since 2023, indicating a notable shift towards the recognition and importance of financial literacy as a crucial component of CP.

The topics of discussion include litigation, acts, adjudication, and agencies. The aforementioned terms, which pertain to legal and regulatory procedures, have consistently appeared in scholarly literature, indicating the legal and institutional framework in which the CFPB functions.

In general, the patterns observed in these terms indicate a shift in scholarly literature towards a more expansive perspective. Initially, there was a predominant emphasis on legal and economic dimensions. However, the current discourse has evolved to encompass a wider range of considerations, such as CP, financial matters, competition, and financial literacy. The aforementioned statement underscores the multifaceted character of the CFPB's endeavors and the wide array of concerns it tackles.

2.2. Trend Topics

Trend Topics analysis shows the frequency of specific topics in CFPB-related research and their distribution over time, as represented by the first quartile (year_q1), median (year_med), and third quartile (year_q3) of their occurrence.

Table 6: Trend Topics Analysis

Topics	Trend Years
Economics	2014 and 2015
Law	2017 to 2018
Competition	2017 to 2018
Consumer Protection	2019 to 2021
Finance	2019 to 2021

Source: *Created by the researcher using the Bibliometrix software.*

Overall, while the topics of 'economics' and 'law' have been consistent themes in the literature, the recent increase in the prominence of 'consumer protection' and 'finance' suggests a broadening focus in the field. This reflects the evolving nature of the issues addressed by the CFPB and the increasing recognition of the importance of CP in the financial sector.

2.2.1. Countries Collaboration

The aforementioned collaborations indicate a widespread interest in research pertaining to the CFPB, underscoring the significance of international collaboration within this domain. It is noteworthy to mention that the US, as the domicile of the CFPB, is actively engaged in the majority of collaborative efforts, signifying its pivotal position in this realm of scholarly investigation.

Malaysia and the UK have engaged in a collaborative effort on a single occasion. The UK and Australia have engaged in a collaborative effort on a single occasion. The US has engaged in collaborative efforts with Canada, Israel, Italy, and Korea on a single occasion each. The US has engaged in two instances of collaboration with the UK.

2.2.2. Thematic Map

The analysis of thematic maps is conducted by considering the frequency of words, their clustering patterns, and their centrality measures, which provide insights into the significance of a node within a network.

The cluster pertaining to the concept of 'law' emerges as the most prominent theme, exhibiting the highest frequency of occurrences and centrality measures. The lack of surprise can be attributed to the fact that the CFPB operates as a legal entity, thereby subjecting its actions and policies to legal regulations. The lexical items linked to this particular cluster, such as 'economics', 'competition', 'litigation', 'act', 'adjudication', and 'agencies', indicate that the legal discourse in the literature is closely connected to economic factors, competition legislation, and the enforcement role of regulatory bodies.

The theme of 'CP' emerges as the second most prevalent cluster. This is consistent with the CFPB mission to safeguard consumers within the financial industry. The terminology linked to this particular cluster, such as 'finance', 'embeddings', 'natural language processing systems', and 'topic modeling', indicates that scholarly research is investigating novel approaches, which incorporate artificial intelligence and data mining methodologies, to bolster CP measures.

The clusters labeled as 'human' and 'health' indicate the existence of a substantial body of literature that examines the human dimension of CP. This includes investigating the effects of financial decisions on the well-being and health of consumers. The cluster labeled as 'literacy' signifies a prioritization of financial education and literacy as a fundamental element of

safeguarding consumer interests.

The examination of the 'enforcement', 'access', and 'financial education' clusters in the literature indicates that researchers are also investigating the methods employed to ensure compliance with CP laws, the availability of financial services to individuals, and the impact of financial education on empowering consumers.

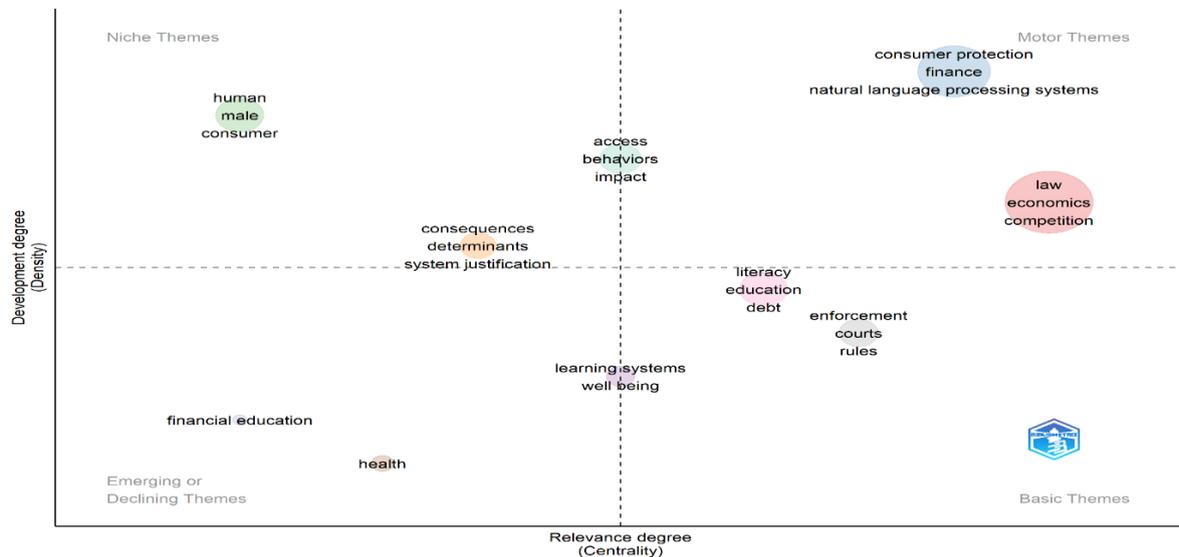


Figure 9: Thematic Map

Source: Created by the researcher using the Bibliometrix software.

The clusters of 'learning systems', 'consequences', and 'system justification' exhibit a relatively lower level of dominance. These emerging themes are increasingly gaining attention and recognition in the academic literature. The cluster labeled as 'learning systems' may be engaged in the investigation of the application of machine learning and artificial intelligence in the realm of CP. On the other hand, the clusters denoted as 'consequences' and 'system justification' could be focused on analyzing the potential ramifications of the actions and policies implemented by the CFPB.

In summary, the examination of thematic maps uncovers a wide array of themes present in the literature pertaining to the CFPB, indicating the complex and varied aspects of safeguarding consumer finances. The analysis additionally underscores potential avenues for future investigation, encompassing the application of artificial intelligence and machine learning in safeguarding consumer interests, the human dimension of CP, and the ramifications of the actions and policies implemented by the CFPB.

2.2.3. The Co-occurrence Network

The utilization of co-occurrence network analysis offers valuable insights into the interconnections among various themes or topics within the literature pertaining to the CFPB. The analysis is grounded in the examination of the frequency at which pairs of words co-occur within a shared context, thereby signifying a thematic association or correlation. The measures of betweenness, closeness, and PageRank centrality are employed to ascertain the nodes with the highest level of influence within the network.

'Law' labeled node provides the greatest influence within the network, as indicated by its highest values in betweenness,

closeness, and PageRank centrality metrics. This implies that the concept of 'law' serves as a unifying element that interrelates various themes within the literature. The nodes labeled as 'adjudication' and 'agencies' exhibit significant influence, suggesting a strong correlation between these themes and the domain of 'law' as well as other interconnected themes within the network.

The nodes representing 'innovation', 'rationality', and 'separation' exhibit lower betweenness and closeness centrality measures, while their PageRank centrality measures are comparatively high. This implies that while these themes may not exhibit extensive interconnections with numerous other themes, they do exhibit connections with other influential themes within the network.

The 'human', 'male', and 'consumer' nodes form a separate cluster, indicating a distinct theme in the literature that focuses on the human aspect of CP. The 'CP', 'finance', 'embeddings', 'natural language processing systems', 'topic modeling', 'cfpb', 'classification (of information)', 'consumer complaints', 'data mining', and 'decision support systems' nodes form another cluster, suggesting a theme that explores innovative ways to enhance CP, including the use of artificial intelligence and data mining techniques.

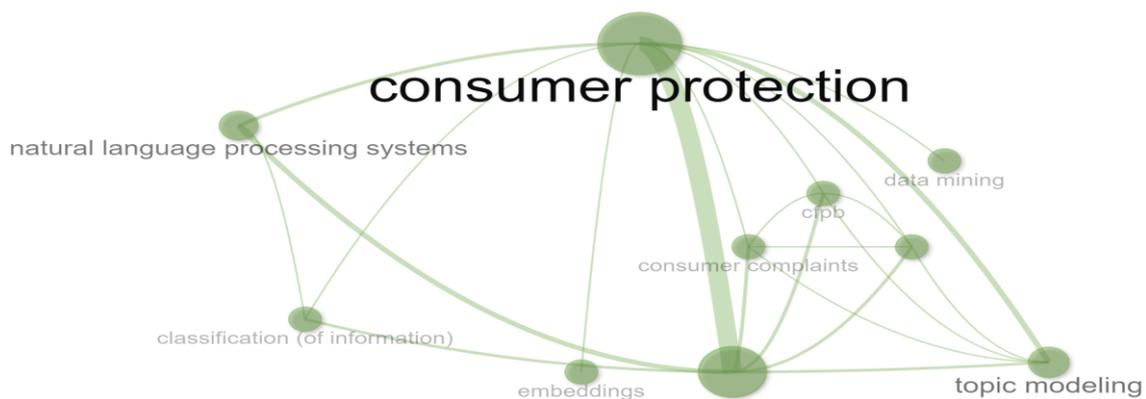


Figure 10: Co-occurrence of Consumer Protection

Source: Created by the researcher using the Bibliometrix software.

The nodes labeled as 'litigation' and 'act' are grouped together, forming a distinct cluster that signifies a thematic emphasis on the legal dimensions of CP. The cluster comprising the 'literacy', 'education', and 'debt' nodes indicates a thematic focus on the significance of financial education and literacy in safeguarding consumer interests.

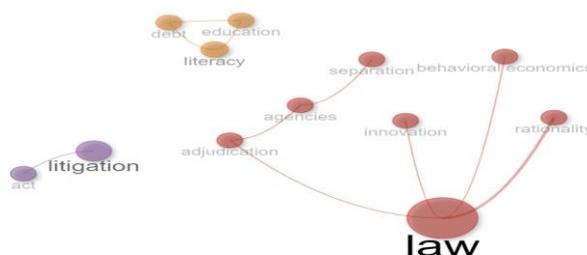


Figure 11: Co-occurrence of Law, Litigation, Literacy

Source: Created by the researcher using the Bibliometrix software.

In summary, the utilization of co-occurrence network analysis uncovers an intricate network of interrelated themes within the body of literature pertaining to the CFPB. The analysis underscores the pivotal significance of 'law' in establishing connections among various themes, leading to the formation of distinct clusters that center around the human dimension of CP, the utilization of cutting-edge technologies in CP, the legal dimensions of CP, and financial education and literacy.

CONCLUSION

This study has provided an extensive overview of the CFPB-related research articles accessible in two scholarly databases. It is clear that research in this field is expansive and involves contributions from various areas, including law, economics, finance, competition, CP, and literacy. In addition, this analysis displays a growing emphasis on CP and finance in more recent years, illustrating the changing focus of current work.

The CFPB has profoundly changed consumer finance practices, both domestically and worldwide. There is a wealth of research pointing to the agency's role in carrying out consumer safety regulations, promoting financial understanding, and vigilantly monitoring the financial markets for any potential dangers to customers. In spite of the abundance of customer grievance information collected by the CFPB, the scholarly record does not fully utilize it. This gives a chance to further research to take advantage of this vast source of knowledge on consumer behaviors and the efficacy of CPs.

In this domain, the USA has the highest number of research and citations, however, countries like Australia and Korea still make meaningful contributions to the body of literature. This highlights the global priority of consumer financial security and implies the necessity of international cooperation and the sharing of knowledge. Looking at both the CFPB and the complaint information is essential to fight against the difficulties that financial consumers face, in order to avoid the repetition of similar issues in other countries.

In terms of policy impact, it is clear that while CP rules are important to instill confidence in the economy and advance financial inclusivity, regulations must tread a fine line between being stringent enough and not impeding the development of financial institutions. This calls for a moderate approach to enforcement.

One can conclude that CP is necessary to create confidence in the financial system and support financial inclusion, but it must be done carefully, considering a balanced strategy. Regulations that are too demanding can impede the development of banking institutions, so a sensible approach is needed.

ETİK BEYAN VE AÇIKLAMALAR

Etik Kurul Onay Bilgileri Beyanı

Çalışma, etik kurul izni gerektirmeyen bir çalışmadır.

Yazar Katkı Oranı Beyanı

Yazarlar tüm çalışmalarını birlikte yürütmüştür.

Çıkar Çatışması Beyanı

Çalıřmada potansiyel bir ıkar atıřması bulunmamaktadır.

REFERENCES

- Aria, M. & Cuccurullo, C. (2017). Bibliometrix: An R-Tool for Comprehensive Science Mapping Analysis. *Journal of Informetrics*, 11(4), 959-975. <https://doi.org/10.1016/j.joi.2017.08.007>
- Barkow, R. E. (2010). Insulating Agencies: Avoiding Capture Through Institutional Design. *Texas Law Review*, 89(1), 15-79.
- Bastani, K., Namavari, H. & Shaffer, J. (2019). Latent Dirichlet Allocation (LDA) for Topic Modeling of the CFPB Consumer Complaints. *Expert Systems with Applications*, 127, 256-271. <https://doi.org/10.1016/j.eswa.2019.03.001>
- Beales, H. (2008). Consumer Protection and Behavioral Economics: To BE or Not to BE?. *Competition Policy International Journal*, 4(1), 149-167.
- Bradford, S. (1934). Sources of Information on Specific Subjects. *Engineering: An Illustrated Weekly Journal*, 137(3550), 85-86.
- Braucher, J. (2012). Form and Substance in Consumer Financial Protection. *SSRN Electronic Journal*, 7, 107-129. <https://doi.org/10.2139/ssrn.2126859>
- CFPB (2014). *Consumer Financial Protection Bureau Strategic Plan FY 2013-FY 2017*. Consumer Financial Protection Bureau. Retrieved from: <https://www.consumerfinance.gov/strategic-plan/>, Accessed date: 10.06.2024.
- Cull, R., Demirgüç-Kunt, A. & Lyman, T. (2012). *Financial Inclusion and Stability: What Does Research Show?* CGAP Brief. Retrieved from: <https://www.cgap.org/sites/default/files/CGAP-Brief-Financial-Inclusion-and-Stability-What-Does-Research-Show-May-2012.pdf>, Accessed date: 07.09.2024.
- Echchakoui, S. (2020). Why and How to Merge Scopus and Web of Science during Bibliometric Analysis: The Case of Sales Force Literature from 1912 to 2019. *Journal of Marketing Analytics*, 8(3), 165-184. <https://doi.org/10.1057/s41270-020-00081-9>
- Firdaus, A., Razak, M. F. A., Feizollah, A., Hashem, I. A. T., Hazim, M. & Anuar, N. B. (2019). The Rise of "Blockchain": Bibliometric Analysis of Blockchain Study. *Scientometrics*, 120(3), 1289-1331. <https://doi.org/10.1007/s11192-019-03170-4>
- Fuster, A., Plosser, M. & Vickery, J. (2018). *Analyzing the Effects of CFPB Oversight*. Federal Reserve Bank of New York Liberty Street Economics. Retrieved from: <http://libertystreeteconomics.newyorkfed.org/2018/10/analyzing-the-effects-of-cfpb-oversight.html>, Accessed date: 06.08.2024.
- Gilles, M. & Friedman, G. (2012). After Class: Aggregate Litigation in the Wake of "AT&T" Mobility v Concepcion. *University of Chicago Law Review*, 79(2), 623-675.
- Han, J. J. & Jang, W. (2013). Information Asymmetry and the Financial Consumer Protection Policy. *Asian Journal of Political Science*, 21(3), 213-223. <https://doi.org/10.1080/02185377.2013.864511>
- Johnson, B. (2019). Consumer Protection and Financial Inclusion. *Cato Journal*, 39(3), 489-497. <https://doi.org/10.36009/cj.39.3.1>
- Jost, J. T., Langer, M. & Singh, V. (2017). The Politics of Buying, Boycotting, Complaining, and Disputing: An Extension of the Research Program by Jung, Garbarino, Briley, and Wynhausen. *Journal of Consumer Research*, 44(3), 503-510. <https://doi.org/10.1093/jcr/ucx084>
- Jung, K., Garbarino, E., Briley, D. A. & Wynhausen, J. (2017). Blue and Red Voices: Effects of Political Ideology on Consumers' Complaining and Disputing Behavior. *Journal of Consumer Research*, 44(3), 477-499. <https://doi.org/10.1093/jcr/ucx037>
- Lee, J. M., Lee, J. & Kim, K. T. (2020). Consumer Financial Well-Being: Knowledge is Not Enough. *Journal of Family and Economic Issues*, 41(2), 218-228. <https://doi.org/10.1007/s10834-019-09649-9>
- Lotka, A. J. (1926). The Requency Distribution of Scientific Productivity. *Journal of the Washington Academy of Sciences*, 16(12), 317-323.
- Lukonga, I. (2015). Islamic Finance, Consumer Protection, and Financial Stability. *IMF Working Papers*, 15(107), 1-39. <https://doi.org/10.5089/9781513515106.001>

- Martín-Martín, A., Thelwall, M., Orduna-Malea, E. & Delgado López-Cózar, E. (2021). Google Scholar, Microsoft Academic, Scopus, Dimensions, Web of Science, and OpenCitations' COCI: A Multidisciplinary Comparison of Coverage Via Citations. *Scientometrics*, 126(1), 871-906. <https://doi.org/10.1007/s11192-020-03690-4>
- Mitchell, W. C. & Simmons, R. T. (2021). *Beyond Politics: Markets, Welfare, and the Failure of Bureaucracy*. <https://doi.org/10.4324/9780429039157>
- Narin, F., Olivastro, D. & Stevens, K. A. (1994). Bibliometrics/Theory, Practice and Problems. *Evaluation Review*, 18(1), 65-76. <https://doi.org/10.1177/0193841X9401800107>
- Park, J. & Cardie, C. (2019). A Corpus of eRulemaking User Comments for Measuring Evaluability of Arguments. *11th International Conference on Language Resources and Evaluation (LREC 2018)*, 1623-1628.
- Ruiz-Rosero, J., Ramirez-Gonzalez, G. & Viveros-Delgado, J. (2019). Software Survey: ScientoPy, a Scientometric Tool for Topics Trend Analysis in Scientific Publications. *Scientometrics*, 121(2), 1165-1188. <https://doi.org/10.1007/s11192-019-03213-w>
- Schwarcz, D. (2014). Transparently Opaque: Understanding the Lack of Transparency in Insurance Consumer Protection. *UCLA Law Review*, 61(2), 394-462.
- Siluo, Y. & Qingli, Y. (2017). Are Scientometrics, Informetrics, and Bibliometrics Different?. *16th International Conference on Scientometrics and Informetrics, Conference Proceedings 2017*, 1-12.
- Szustak, G. (2014). Consumer Protection as a Premise to Build Trust in the Financial Service Market. *Journal of Economics and Management*, 16, 113-133.
- Van Loo, R. (2017). Rise of the Digital Regulator. *Duke Law Journal*, 66(6), 1267-1329.
- Van Loo, R. (2019). Regulatory Manitors: Policing Firms in the Compliance Era. *Columbia Law Review*, 119(2), 369-444.
- Willis, L. E. (2015). Performance-Based Consumer Law. *University of Chicago Law Review*, 82(3), 1309-1409.