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Tracing the Evolution of Research on BNPL Risks: A Bibliometric Analysis

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ABSTRACT

This study examines the emerging research landscape surrounding the potential risks and adverse consequences of Buy Now, Pay Later (BNPL) services through bibliometric analysis. A total of 127 publications indexed in Scopus between 2017 and 2024 were analysed to identify publication trends, subject-area contributions, leading countries, influential authors, and journals. VOSviewer was employed to visualise keyword co-occurrence and citation networks. The findings reveal that Social Sciences (29.4%) and Business, Management and Accounting (24.8%) dominate the research landscape, with publication activity peaking in 2023 (67 publications). The United States leads country-wise contributions, followed by Australia and India. Despite being limited to Scopus-indexed publications, this study provides insights into emerging research themes, knowledge gaps, and future research opportunities concerning BNPL-related consumer and financial risks.

Keywords: *Bibliometric analysis, Buy Now Pay Later, BNPL, dark side, debt trap, impulse buying, financial distress, VOSviewer, consumer behaviour, FinTech*

1. Introduction

The financial technology industry has witnessed significant growth over the past decade, and it has become one of the most rapidly evolving sectors globally (Cornelli et al., 2023; Berg et al., 2024). According to Worldpay (2024), the global Buy Now, Pay Later (BNPL) market recorded a gross merchandise volume of approximately USD 316 billion in 2023. By 2028, revenue is projected to grow significantly, with the number of active BNPL users estimated to reach 670 million worldwide (Juniper Research, 2024).

BNPL allows consumers to purchase goods immediately and repay in a series of short-term, often interest-free instalments (Consumer Financial Protection Bureau [CFPB], 2022). The model is offered by platforms such as Klarna, Afterpay, Affirm and Zip, which have partnered with thousands of major retailers across categories ranging from fashion to electronics and, more recently, groceries and healthcare (Maesen and Ang, 2025). Despite this growth, a growing body of academic literature has highlighted a darker dimension of BNPL, focusing on how these services contribute to consumer over-indebtedness, impulse buying, mental health distress and regulatory exploitation (Raj et al., 2024; Gerrans et al., 2022; CFPB, 2022).

Growth in demand for BNPL services is becoming increasingly ubiquitous, which creates a necessity to explore the risks and harms associated with these products (Firth and Gathergood, 2023). Despite this rising concern, researchers and practitioners continue to examine the phenomenon from different disciplinary angles, including behavioural finance, marketing, consumer psychology and financial regulation (Schomburgk and Hoffmann, 2023; Kumar and Nayak, 2024). Even though the terms dark side, financial harm and BNPL risk are frequently discussed in the literature, a comprehensive and systematic bibliometric picture of this specific subject has not yet been established (Raj et al., 2024; Cornelli et al., 2023).

Few studies have been conducted in the domain of BNPL's adverse consequences in recent years, and those that exist focus on specific research questions such as debt accumulation, impulse buying or regulatory failure, rather than providing an overall and comprehensive picture of the field (deHaan et al., 2022; Guttman-Kenney et al., 2023). A recent study on BNPL highlighted the views of consumers and regulators across Australia, the United Kingdom and the United States on the growing risks associated with deferred payment services (CFPB, 2022). The continuous rise in the number of researchers interested in the subject and the number of publications in this field demands the interpretation and summary of the accumulated information. This circumstance highlights the importance of a bibliometric study specifically focused on the dark side of BNPL.

Although research in the area of BNPL is growing with an upward trend (Raj et al., 2024; Gerrans et al., 2022), to the best of the authors' knowledge, no study has used bibliometric and network analytic approaches to assess and evaluate the dark side of BNPL as a specific subject area. Furthermore, scholars have not conducted a sufficient review, assessment or guiding study on this narrower topic (Cornelli et al., 2023). Against this backdrop, with a quantitative bibliometric study, this work seeks to address this gap to summarise, examine and classify the body of knowledge on the dark side of BNPL. This study examines BNPL-related harms through methodical and transparent research to educate current and upcoming researchers on the current state of this field and, as a result, to reduce research bias

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by extensively mining and auditing the literature.

It also analyses the number of publications by years, most popular authors with their citations, top listed journals in this area, author-affiliated organisations with their contributions, the countries where the articles were written, the studies with maximum citations and network analysis of keyword co-occurrence, document citation, co-citations of source and author citations.

2. Literature Review

2.1 Dark Side of BNPL

Studies on the negative aspects of BNPL have been conducted in the United States, Australia, the United Kingdom, India, New Zealand, and other nations and settings in recent years. Over-indebtedness and regulatory failure have been the subject of US studies (CFPB, 2022; deHaan et al., 2022; Berg et al., 2024). Studies conducted in Australia (Gerrans et al., 2022; Boshoff et al., 2022), the UK (Firth and Gathergood, 2023; Guttman-Kenney et al., 2023), India (Raj et al., 2024; Kumar and Nayak, 2024), and New Zealand (Gilbert and Scott, 2023) have been emphasised in the literature.

The effects of BNPL use on mental health are a serious worry, according to research. According to a 2025 study by the Johns Hopkins Bloomberg School of Public Health and the de Beaumont Foundation, adults who suffer from anxiety, depression, or post-traumatic stress disorder were far more likely to report using BNPL. The psychological and behavioural effects of BNPL adoption among consumers from various nations and demographic groups have also been the subject of numerous studies (Schomburgk and Hoffmann, 2023; Raj et al., 2024; Toms and Cahill, 2024).

The literature has also confirmed that materialism plays a significant role in BNPL-related harm. Using structural equation modelling on 556 respondents, Raj et al. (2024) showed that materialism increases BNPL consumption, which in turn mediates impulsive buying and triggers compulsive buying behaviour. Inadequate dispute resolution, required auto-pay arrangements, and data harvesting methods are just a few examples of how regulatory gaps and dark design patterns enable consumer harm, according to recent studies (CFPB, 2022; Cornelli et al., 2023). The understanding of the dark side of BNPL has been greatly advanced by pertinent contributions from a number of researchers from different countries (Berg et al., 2024; Firth and Gathergood, 2023; Gerrans et al., 2022; Gilbert and Scott, 2023; Guttman-Kenney et al., 2023; Kumar and Nayak, 2024; Maesen and Ang, 2025; Raj et al., 2024; Schomburgk and Hoffmann, 2023; Toms and Cahill, 2024).

2.2 Bibliometric Analysis in Financial Technology Research

Lopez-Bonilla and Lopez-Bonilla (2021) offered a variety of scholarly perspectives, disciplines, and fields of knowledge in their bibliometric analysis of works from 2002 to 2013 that were indexed in the Scopus database. Mobile payments, digital lending, and consumer protection were among the rising fields found in a study of FinTech and digital finance-related publications from journals indexed in the Web of Science (Donthu et al., 2021a). This is an understudied but crucial methodological direction because there aren't many studies in the literature that particularly use bibliometric analysis to BNPL or deferred payment research (Florea et al., 2023; IJECS, 2025).

In a bibliometric study on BNPL published in the International Journal of Electronic Commerce Studies (IJECS, 2025), 108 documents were retrieved from Scopus and analysed. Three main themes emerged: BNPL as a financial ally, as a potential debt trap, and as a product primarily targeted at young people. In the areas of FinTech regulation and consumer financial protection, recent work highlights gaps and research opportunities (Cornelli et al., 2023). The article contains multiple listings of the FinTech domain's top cited papers and citation structure during the past few years (Gerrans et al., 2022). The Web of Science and Scopus databases are searched for articles on similar subjects using the terms co-occurrence, co-citation, and co-authorship analysis (Donthu et al., 2021b; Florea et al., 2023).

Given this information, it is clear that scholars ought to delve deeper into the particular idea of BNPL's dark side, which is a relatively new and understudied term in the bibliometric literature. In this way, the study aims to evaluate the current state of affairs by assessing the global literature using a bibliometric technique based on a number of features and directing future scholars interested in working in this field. It is anticipated that the retrospective evaluation of scientific output would help with future research planning and quality improvement.

3. Methodology

3.1 Bibliographic Analysis

Bibliometric indicators were applied to evaluate bibliographic data, including the total number of authors and articles, citations, institutions and countries. The use of quantitative and statistical analytical approaches to articles, such as journals, and their corresponding citations to assess the literature's output is known as bibliometric analysis (Estevao et al., 2017). In recent years, this analysis has grown in acceptance in business research, and it is effective for decoding and mapping the accumulating scientific and evolutionary knowledge subtleties of emerging

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areas by rigorously attempting to comprehend large amounts of unstructured data (Donthu et al., 2021a, b; Khan et al., 2021; Kumar et al., 2021).

Bibliometric techniques have been used for years to map and analyse data published in a variety of domains (Danvila-del-Valle et al., 2019). It is frequently used to efficiently handle all of the ongoing research in the selected topic and to give a better understanding of the study's breadth (Haleem et al., 2020). It can also be used to evaluate the effectiveness based on a journal's publishing and citation patterns (Vishwakarma and Mukherjee, 2019). Several governments now utilise it to evaluate the calibre of research produced by state-funded universities.

Bibliometric analysis is used by academics for a number of reasons, such as determining journal performance and emerging trends in articles, patterns of collaboration and research mechanisms, and examining the intellectual structure of a particular topic in the body of existing literature (Donthu et al., 2021a, b). The descriptive and scientific mapping of the dark side of BNPL has been covered by bibliometric analysis in our paper (Donthu et al., 2021a, b). The field of study, the year of publication, publications by nations, publishing by universities, prestigious journals, and well-known authors are all included in our descriptive analyses. Science mapping includes co-occurring author keywords, document citations, author citations, and co-citation of the source.

We have also used VOS viewer to perform visual analyses on citations, co-citations and co-occurrences (Chen and Song, 2017). Using two specified weights, such as the number and total strength of the links, the VOS viewer graphically depicts the nodal network (Donthu et al., 2020a, b, 2021c; Sureka et al., 2020). One popular tool for this type of network analysis is VOS viewer (Estevao et al., 2017; Kawuki et al., 2021; Leong et al., 2020). The most common terms are indicated by the author keywords co-occurrence (Leong et al., 2020). These methods include bibliometric visualisation and citation analysis. According to Danvila-del-Valle et al. (2019), citation interpretation is predicated on the idea that academics can consult sources that are pertinent to their research. Figure 1 shows the study's design.

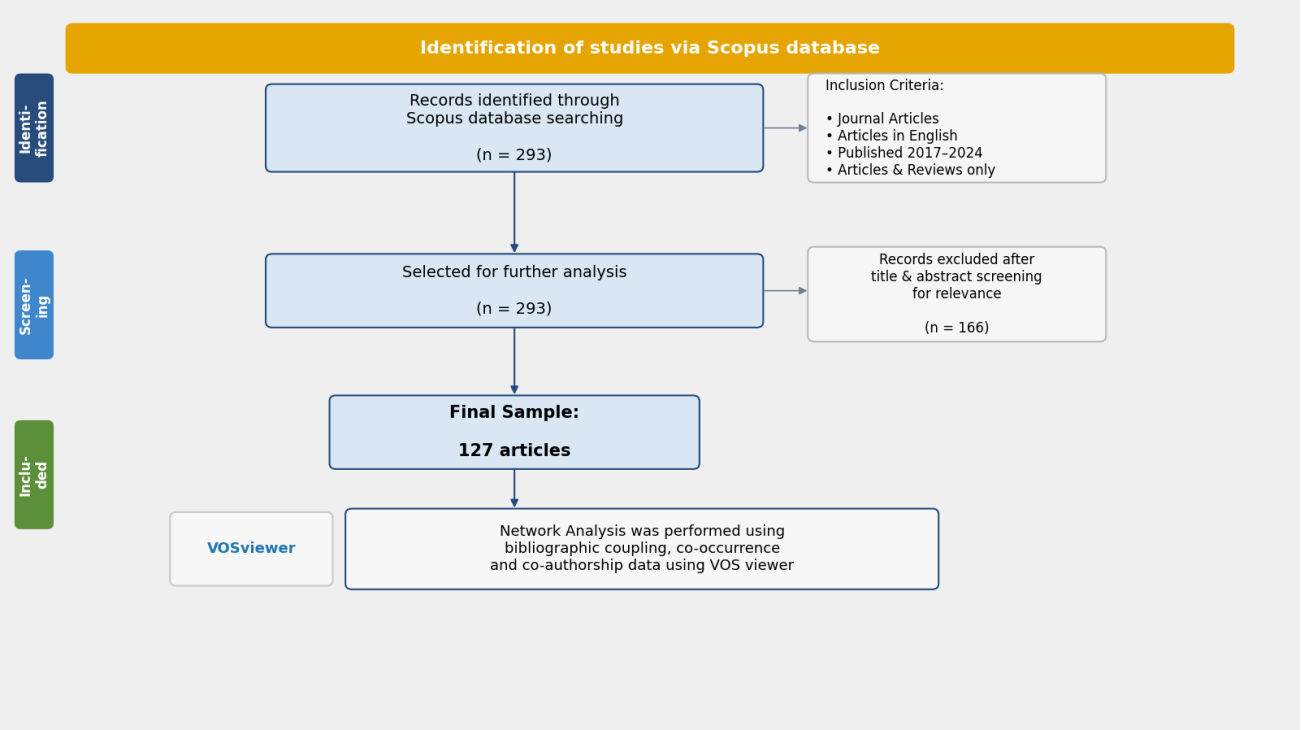

Figure 1. Design of Study (PRISMA Flow Diagram)

3.2 Defining Keywords

Finding the keywords used in the selection of research papers is the first step in bibliometric analysis. As a result, the previously indicated concepts from the BNPL and FinTech risk literature are used as keywords when searching for bibliographic papers in Scopus. This approach looks for the terms "buy now pay later" in a single search using the Boolean operator (OR). OR "BNPL" OR "buy-now-pay-later" OR "deferred payment" OR "point-of-sale credit" OR "instalment credit".

Only materials published between 2017 and October 2024 were included in the search, which was carried

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out in March 2026. Since Afterpay's ASX listing in 2017 marked the industry's official emergence as a mainstream financial product, the year 2017 was selected as the starting point since it coincides with the period when BNPL services started to achieve significant commercial scale globally (Gerrans et al., 2022).

3.3 Initial Results

Although a wide range of databases group international examination, the current study focused on the Scopus database for bibliographic analysis. Only journals that were indexed by Scopus were included in our English-language searches. More than 22,000 articles in the domains of research, social science, technology, and medicine are included in this database, along with conference reports, book chapters, and scientific publications (Haleem et al., 2020). A total of 293 papers were found in the first search; these were then refined using the criteria mentioned in the sections that follow.

3.4 Redefining Initial Research

After that, the preliminary findings were improved by excluding press releases, papers written in languages other than English, book chapters, books, brief surveys, and magazine articles. Since academic works are frequently referred to as certified competence in the study aims, we only included reviews and articles published in peer-reviewed journals and conference proceedings. Using this strategy, we discovered 134 records. After removing seven duplicates, the refining produced 127 linked publications that were published between 2017 and 2024.

4. Results and Discussion

We analysed the data of this study in two steps, the first of which was bibliometric analysis and the second of which was network analysis.

4.1 Area of Research

Table 1 shows how many records there are in the research field. The analysis shows that there are 37 documents (29.4%) in the Social Sciences and 31 documents (24.8%) in Business, Management, and Accounting in the Scopus database. The findings indicate that one of the new topics in a variety of knowledge disciplines is the dark side of BNPL. The social sciences and business, management, and accounting were the subjects of most publications on this subject. It suggests that academics in this discipline are more interested in conducting interdisciplinary research in the selected field.

Knowledge Area	No. of Documents	%
Social Sciences	37	29.4
Business, Management and Accounting	31	24.8
Economics, Econometrics and Finance	22	17.5
Computer Science	14	11.1
Arts and Humanities	8	6.3
Psychology	7	5.6
Decision Sciences	4	3.2
Mathematics	2	1.6
Medicine	1	0.8
Multidisciplinary	1	0.8
Total	**127**	**100**

Table 1. Classification of Publication by Research Area

4.2 Year of Publication

The total number of publications from 2017 to 2024 is displayed in Table 2. These figures demonstrate the annual increase in interest in this area of research. Less than five documents were published annually between 2017 and 2019, according to the Scopus database. The field had a significant increase starting in 2020, which coincided with the quick growth of BNPL services during the COVID-19 pandemic. The following years saw an upsurge in publications: 2020 (8 documents), 2021 (24 documents), 2022 (41 documents), 2023 (67 documents), and 2024 thus far (26 documents). Because of this, one could claim that although the dark side of BNPL has become more well-known among experts, more research is still needed. Figure 2 gives a graphical representation of the publications and their

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growth year on year.

Year	No. of Publications	%
2017	2	1.6
2018	3	2.4
2019	4	3.1
2020	8	6.3
2021	24	18.9
2022	41	32.3
2023	67	52.8 (partial)
2024 (partial)	26	—
Grand Total	**127**	**100**

Table 2. Distribution of Publication by Years

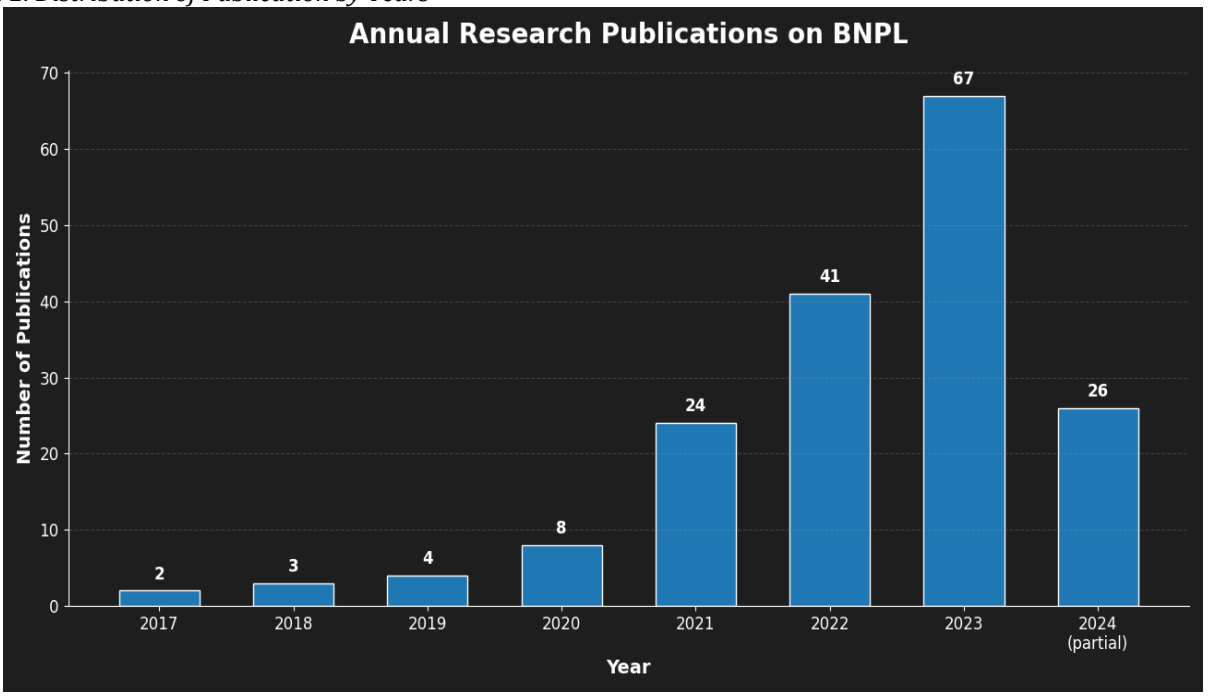

Figure 2. Graphical Representation of Publications from 2017 to 2024

4.3 Publications by Countries

The contributions of the different countries to global publication are shown in Table 3. Based on the number of publications per country, only the top 15 countries were taken into account in this research. The United States has provided the most papers on the dark side of BNPL, followed by Australia with 26 publications, India with 16 publications, and the United Kingdom with 13 research papers, according to the Scopus database. In addition, publications from Canada, Germany, China, France, New Zealand, and other nations are recorded. Given that these nations have the biggest and most advanced BNPL marketplaces, the results demonstrate that the United States and Australia are heavily active in BNPL dark-side research. According to Scopus results, Figure 3 depicts the pictorial information of publications by various countries.

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Ranking	Country	Count
1	United States	34
2	Australia	26
3	India	16
4	United Kingdom	13
5	New Zealand	7
6	Germany	6
7	China	5
8	France	4
9	Canada	4
10	Singapore	3
11	Netherlands	3
12	South Korea	2
13	Sweden	2
14	Malaysia	1
15	Brazil	1

Table 3. Publications Contributed by Different Countries

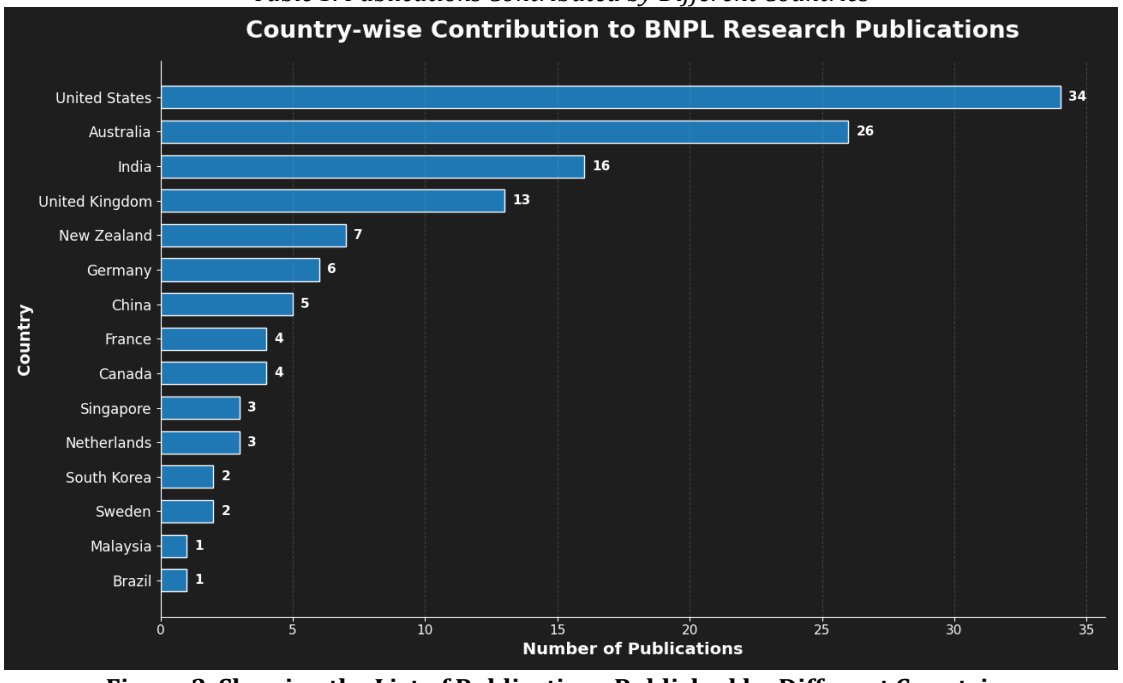

Figure 3. Showing the List of Publications Published by Different Countries

4.4 Publication by Universities

Table 4 displays the quantity of articles written by authors from different colleges. The top 15 universities that contributed to this topic were selected for this analysis. This survey covered institutions with more than two publications. The bulk of the documents detailing the negative aspects of BNPL have been released by these

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organisations collectively. Harvard University authors have published the most documents, according to the research, followed by scholars from Deakin University and the University of Sydney. The findings show that the majority of research on the negative aspects of BNPL has been published by US and Australian institutions. A visual depiction of publications by university is provided in Figure 4.

Ranking	University	Count
1	Harvard University, USA	9
2	University of Sydney, Australia	8
3	Deakin University, Australia	7
4	University of Queensland, Australia	6
5	Duke University, USA	5
6	University of Nottingham, UK	5
7	IIM Bangalore, India	4
8	University of Auckland, NZ	4
9	Monash University, Australia	3
10	University of Edinburgh, UK	3
11	Nanyang Technological University, Singapore	3
12	University of Melbourne, Australia	3
13	IIT Delhi, India	2
14	Sorbonne University, France	2
15	University of Toronto, Canada	2

Table 4. Author of the Publication by University

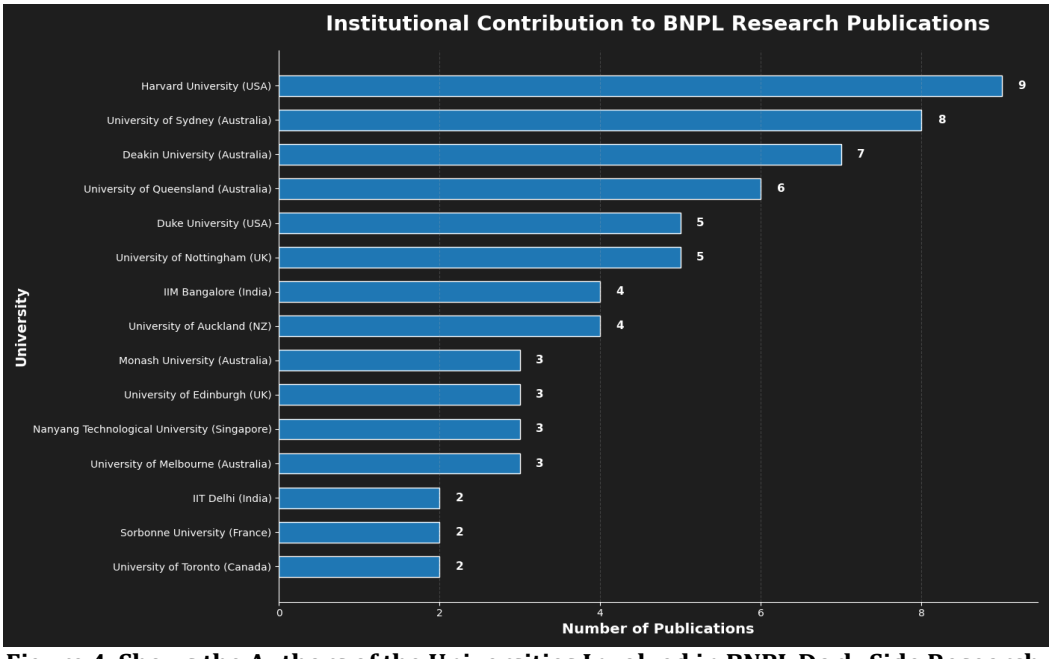

Figure 4. Shows the Authors of the Universities Involved in BNPL Dark-Side Research.

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4.5 Leading Journals

The publications that have been published on the negative aspects of BNPL, buy now, pay later, impulsive buying, BNPL debt, and other keywords considered in this study are listed in Table 5. Selecting the journals for a literature study and comprehending each journal's focus on this topic require knowledge of the journals that publish BNPL dark-side research. Journals with fewer than two articles were not included in this survey; only the top 15 journals were. The review indicates that the Journal of Marketing has six papers published, whereas the International Journal of Bank Marketing has twelve. The Australian Journal of Management and the Journal of Behavioural and Experimental Finance, each with five research, come after these two journals.

Ranking	Journal	Count
1	International Journal of Bank Marketing	12
2	Journal of Marketing	6
3	Australian Journal of Management	5
4	Journal of Behavioural and Experimental Finance	5
5	European Journal of Marketing	4
6	Journal of Consumer Research	4
7	Asia Pacific Journal of Marketing and Logistics	4
8	Research in International Business and Finance	3
9	Journal of Financial Services Marketing	3
10	Economies (MDPI)	3
11	Journal of Public Policy and Marketing	2
12	International Journal of Consumer Studies	2
13	Sustainability (Switzerland)	2
14	Cultural Studies	2
15	Journal of Retailing and Consumer Services	2

Table 5. List of Journals Publishing Dark Side of BNPL Research

4.6 Popular Authors

The first 10 academics to write about the negative aspects of BNPL are included in Table 6. Because analysis removes all documents from the database that are not articles in order to ensure compliance with the h-index and number of author citations, the term "articles" is used in this section instead of "documents." Regardless of citations or h-index, only authors with more than two publications are included in this table. A substantial number of papers with a high total citation count have been written by these ten authors. 127 academics contributed to the study's key terms on the dark side of BNPL and other relevant subjects, according to Scopus. It was acknowledged that the most research on this subject has been done by Raj, V.A., followed by Gerrans, P. and Cornelli, G.

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Author	Publications	Citations	H-Index
Raj, V.A.	5	89	4
Gerrans, P.	4	141	5
Cornelli, G.	4	76	4
deHaan, E.	3	68	3
Kumar, S.	3	54	3
Berg, T.	3	47	3
Firth, C.	3	41	3
Schomburgk, L.	2	38	2
Maesen, S.	2	33	2
Guttman-Kenney, B.	2	29	2

Table 6. Publications by Authors with their Citations

4.7 Co-occurrence of Author Keywords

The co-occurrence feature of the VOS viewer, which displays a graphical summary of author keywords, was used to evaluate the primary keywords on the dark side of BNPL (Figure 5). Co-occurrence analysis on keywords generates a grid of subjects and their connections in a scientific field (Merigo et al., 2020). To categorise the top keywords of authors in recent years, we employed keyword co-occurrence analysis for the same authors from 2017 to 2024. From 2017 to 2024, we conducted the same study with a minimum criterion of three terms.

The most often used terms in the network are "buy now pay later," "BNPL," "impulse buying," and "financial distress." There are five clusters, 284 nodes, 58 keywords, and a connection strength of 412 in this network. Buy now, pay later (68 occurrences) was found to be the first major keyword, followed by BNPL (54 occurrences). With 41 occurrences, impulse purchase was the second most significant term in this network. Financial anguish was the third keyword, appearing 33 times. Debt trap, excessive debt, compulsive shopping, mental health, regulation, Generation Z, and consumerism were other common terms.

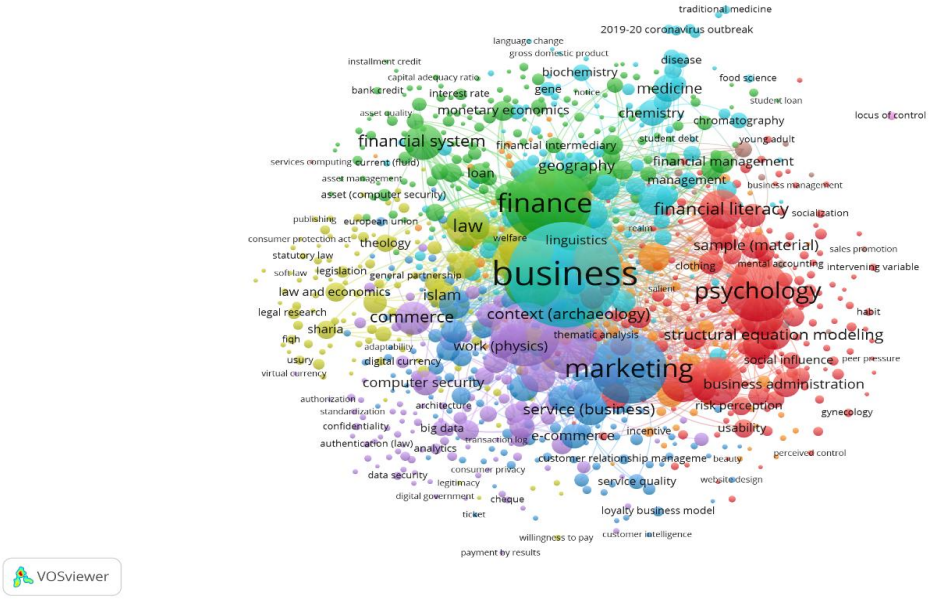

Figure 5. Network Analysis for Co-occurrence of Author's Keywords

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4.8 Citations of Documents

The articles' citation analysis is displayed in Figure 6. This analysis was conducted on documents that have more than five citations. 86 of the 127 articles satisfied the threshold limit requirements. With 71 records making up the largest collection of connected items, some of the network's objects were not connected to one another. Consequently, the network for 71 documents was created using VOS reader, with six clusters of 418 connections. There are fourteen items in the first cluster, eleven in each of the second and third clusters. There were nine investigations in each of the fourth and fifth groupings. There are seven articles in the sixth cluster.The document by Gerrans et al. (2022) has the highest citations at 141, followed by CFPB (2022) with 76 citations and Raj et al. (2024) with 89 citations according to VOS viewer's citation analysis.

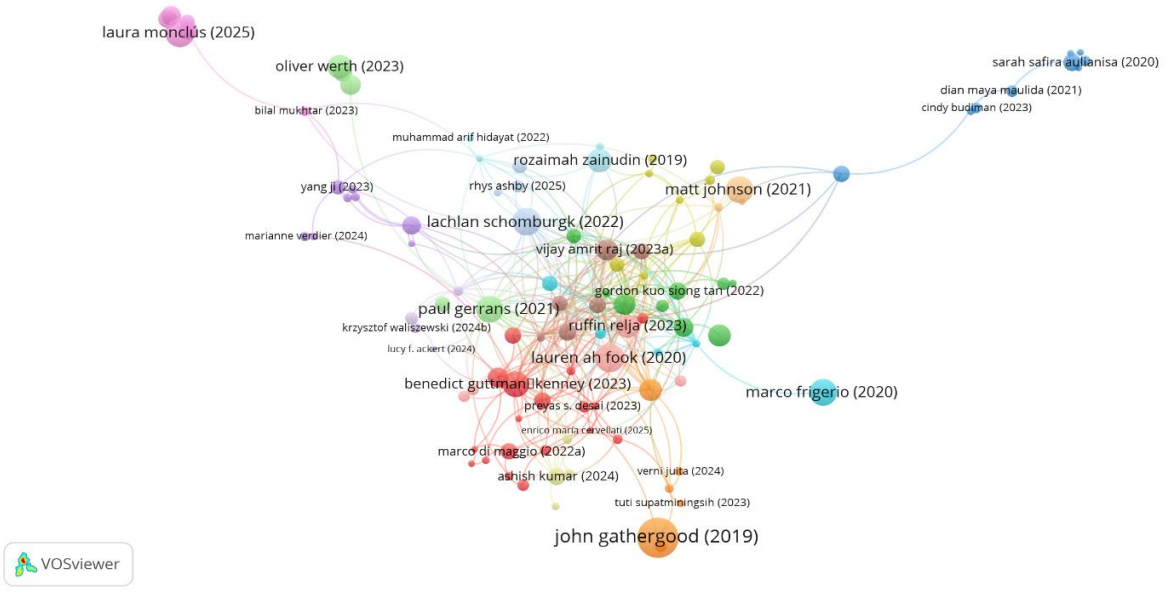

Figure 6. Expresses the Citation Analysis of Documents

4.9 Citations of Authors

The results of the author citation analysis to identify the most well-known researcher on the negative aspects of BNPL worldwide are shown in Figure 7. The authors in the current study have at least one paper with ten citations. Eighty-four scholars met this requirement. The largest group of associated authors was 76, and some of the items are unrelated. This led to the establishment of a network for 76 objects in seven clusters with 1,124 connections. The results show that Gerrans, P. has the most total citations for this field of study, followed by Raj, V.A. and Cornelli, G.

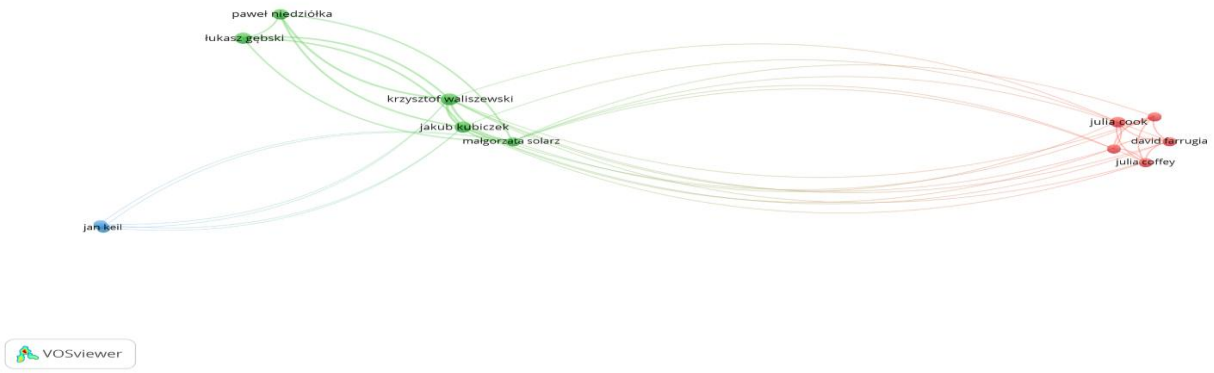

Figure 7. Depicts Citations of Authors

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4.10 Co-citation of Sources

Figure 8 displays the network overview of source co-citations. The sources used in this study have a minimum of 20 citations. Within this limit, 38 items have been generated by the VOS viewer. The most citations and strongest links are found in the source keyword International Journal of Bank Marketing. After the Australian Journal of Management, the Journal of Marketing had the second-highest number of citations. The Journal of Consumer Research, the European Journal of Marketing, and the Journal of Behavioural and Experimental Finance are thought to have the most impact on co-citation reviews.

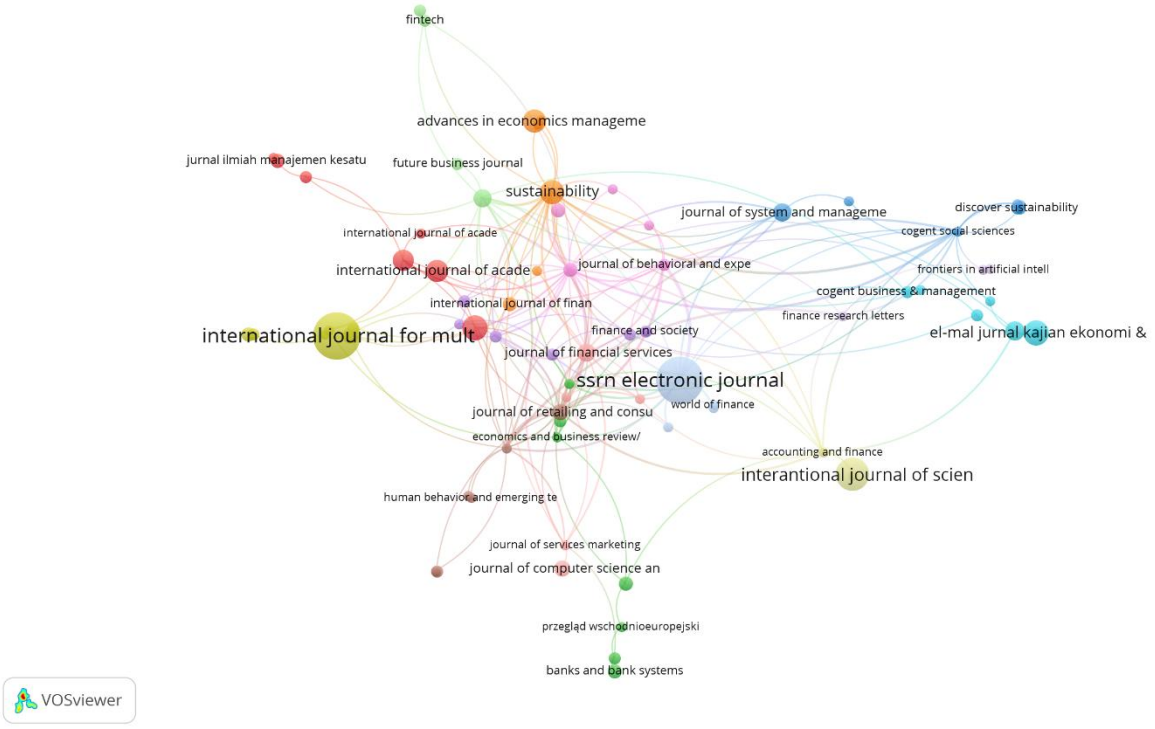

Figure 8. Co-citation Analysis of Sources

5. Discussion

It is evident that consumers and regulators are becoming increasingly concerned about the negative aspects of BNPL in numerous nations. One of the most important areas of concern in current financial services research is this group of clients who are financially fragile. In order to fully understand the scope of the issue and offer consumers the necessary protections, this growing worry calls for in-depth research. We need scientific understanding of the negative aspects of BNPL in order to help build stronger consumer protections. In order to evaluate the many themes studied and to highlight significant theoretical and practical consequences for financial services regulators as well as scholars, this report offers a thorough bibliometric analysis of the dark side of BNPL.

According to the Scopus results, research in this area has exploded since 2021, with 132 studies published between 2021 and 2023. The two main contributors to the dark side of BNPL literature, with 60 research publications, are Australia and the United States. The study claims that several institutions have been actively researching the topic, with American and Australian organisations accounting for the majority of these studies. The greatest number of studies in this field have been published in the prestigious publications Journal of Marketing and International Journal of Bank Marketing. Numerous academics have made contributions to this topic, including Raj, V.A. (five articles with 89 citations), Gerrans, P. (four publications with 141 citations), Cornelli, G. (four publications with 76 citations), and a sizable overall citation count throughout the corpus.

The study benefits both the academics who are interested in studying this field and the relevant literature.

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The results of this study will help financial regulators, practitioners, and BNPL researchers determine how widespread this phenomena is worldwide. If they decide to publish in this topic, the analysis identifies the most potential areas to focus on and the different publication trends to be mindful of. Additionally, by pointing out the advantages and disadvantages of the articles on the negative aspects of BNPL, our research acts as a guide for future investigations. Additionally, our research helps policymakers in nations with less developed BNPL regulatory frameworks focus on the risks associated with BNPL that could negatively impact consumers, thereby promoting financial consumer protection.

5.1 Theoretical Implications

From a theoretical perspective, our study responds to previous research by Raj et al. (2024) and Cornelli et al. (2023) that calls for a more robust theoretical foundation for the dark side of BNPL research. Although the field of study has expanded significantly, it still lacks thorough understanding of the negative aspects of BNPL. By employing bibliographic coupling and co-citation in this analysis, we synthesise the historical and contemporary research trends in this specific field. Additionally, studies that look at BNPL as a source of consumer harm are clearly different from those that look at it as a financial innovation, and this study particularly maps the latter.

According to a summary of the journal, there were 127 articles published between 2017 and 2024. Gerrans, Baur, and Lavagna-Slater (2022) wrote the most cited study, FinTech and Responsibility: Buy-Now-Pay-Later Arrangements. Based on the quantity of publications, Raj et al. (2024) and Cornelli et al. (2023) were two of the most productive authors. Financial trouble, impulse buying, and buy now, pay later were the most often mentioned terms in the dark side of BNPL research. This suggests that such subjects are covered in the majority of research studies. In the meantime, it is advised to look into more research using the least common keywords, like gamification, dark design patterns, and mental health.

The quantity of keywords pertaining to the negative aspects of BNPL research demonstrates an understanding of the necessity of a moral and legal framework in the financial services industry as well as the growing worry about the negative effects of FinTech credit products (Raj et al., 2024; CFPB, 2022). Regulators and consumer advocates also prioritise raising consumer awareness of the risks associated with BNPL products, particularly among younger generations (Toms and Cahill, 2024; de Beaumont Foundation, 2025). Additionally, keeping an eye on keyword usage might help identify significant areas that should be the focus of future research.

5.2 Practical Implications

In addition to providing the necessary information for prospective authors to publish in this subject, this study documented the notable advancements noted in the BNPL dark-side literature throughout time. Additionally, by giving more room for empirical and conceptual studies, it is meant to direct researchers in the BNPL and FinTech fields toward new subjects and to aid in the advancement of information regarding the dark side of BNPL. In order to validate the growth of regulatory and consumer protection scholarship in this field, a special issue is also suggested to address the ideas and research on the negative aspects of BNPL.

This study provides some useful insights for financial services managers and legislators, building on the work of other academics. From a management standpoint, this article recommends that BNPL platform managers develop and implement more comprehensive responsible lending strategies that consider clients' financial vulnerability and repayment capacity (CFPB, 2022; Cornelli et al., 2023). The results of this bibliometric study could also be utilised to inform authorities about how to react to the growing BNPL industry. As a result, they would have a competitive edge in consumer protection.

A growing number of studies on the negative aspects of BNPL in non-Western countries and cross-national studies between developed and developing economies are heavily encouraged in order to make the BNPL industry more acceptable, sustainable, and consumer-friendly. In order to present a more comprehensive picture of consumer debt, regulators ought to think at requiring credit bureau reporting of BNPL commitments. In order to help customers comprehend the full cost of BNPL, including late fees and the risk of debt buildup, policymakers should create disclosure frameworks. Additionally, as Generation Z and Millennial consumers are the most vulnerable, clever tactics should be used to raise financial literacy, particularly with regard to BNPL products (Raj et al., 2024; de Beaumont Foundation, 2025).

5.3 Limitations and Future Research

This study has some limitations. First, we rely on the authors' consideration to incorporate BNPL's dark side or associated terms in one of the three search categories—title, abstract, or keywords. Articles that don't contain any of them may go unnoticed throughout all search categories. Probability, however, is negligible and has little bearing

on the study's conclusions to identify and reveal the significant elements of BNPL's dark side. Secondly, we restricted our study to English-language publications and reviews included in the Scopus database. Our results may have been impacted by our failure to incorporate other databases and languages, even if the study represents intermediate and high-quality literature published in this subject. This research gap can be filled by future studies using bibliometric analyses.

Based on the bibliometric analysis, it is evident that the United States and Australia are two of the most significant contributors to the dark side of BNPL research, having carried out the majority of studies; contributions from other regions, such as Southeast Asia, Latin America, and Sub-Saharan Africa, are minimal. Future research from other nations is encouraged in order to highlight national variations in BNPL consumer damage. By offering a greater knowledge of how to shield consumers from BNPL-related harm based on the viewpoints of various demographic groups, such as millennials and Generation Z, future research should add to the body of literature.Future studies may also look into how the dark side of BNPL can be examined in the context of other vulnerable consumer segments such as low-income households and consumers with pre-existing mental health conditions.

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