

Consumer-Focused Financial Innovation and Marketing Strategies: A Three Decades Multidimensional Study Using Systematic Literature Review (SLR) and Bibliometric Analysis

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Abstract – This study examines how financial innovation affects consumer attitudes toward the use of technology in financial products and services. This study uses a bibliometric technique to analyze 34 years of publications from 1989 to 2023 on marketing strategies and financial innovations. Data were extracted from the Scopus and Dimensions databases to perform co-authorship and co-occurrence analyses. The VOSviewer software package, version 1.6.16, was used to analyze the data and analyzed the publications by identifying the most prominent journals, authors, articles, countries, keywords, citations, subject areas, and content analysis.

The results show that innovation is the most trending keyword, followed by sustainable development, in the past 34 years.

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Moreover, the United States is in the first position, with most publications related to the field of financial innovation and marketing strategies, and ‘Marketing Strategy’ is a trending research topic in this field. The findings of this study will help policymakers in industries and government agencies take up financial innovations in distinct untapped areas and develop marketing strategies for the full development of the economy.

Keywords – Financial innovation, marketing strategies, bibliometric analysis, co-occurrence, co-citation.

1. Introduction

Financial innovation is the process of creating new and improved financial or investment products, services, or procedures. Crowdfunding, mobile banking, and remittance technologies are among recent financial breakthroughs. Digital innovation facilitates the elevation of financial inclusion and enhances financial awareness among the masses [3], [5], [8], [11], [14].

Institutional markets facilitate financial marketing and innovation, which are two aspects of agency relations.

The demand for innovative financial services and products has been increasing over the last two decades [29]. Financial innovation includes new products/services that are not known to the public.

Therefore, there is a need for effective marketing strategies to create awareness and encourage them by highlighting features, educating customers, building trust in security measures and regulatory compliance, customer engagement activities, and taking time-to-time feedback to improve products/services for customer satisfaction. The most effective marketing strategies include reaching customers, digitization with self-service, social media, big data, automation, and digital storytelling. With the implementation of innovative marketing strategies, consumers' behavioral intentions can be understood, which can help build a positive attitude that will initiate financial services accordingly [12]. Nowadays, digital marketing is paving a successful path to connect more consumers to perform daily activities, such as making monetary transactions, fund transfers, online shopping, and paying bills, with the help of financial technology [2].

Marketing strategies and financial innovation play a significant role in any business by addressing competition and achieving success. Innovative financial techniques multiply their effect in attracting mass customers to any sort of product or service. Marketing innovative strategies play an important role in fintech growth [2], [22], [29], [30], [24], [31].

Financial innovation and marketing strategies are two important aspects of a country's economic growth [9], [15], [28], [32]. Financial innovation is a way to grow new financial services, products, processes, institutions, or markets and to provide the same in an effective manner, policymakers adopt various strategies for marketing. Studies have been undertaken to identify potential fields for improvement in financial innovation with the help of previous studies and by grabbing conceptual databases using bibliometric analysis [27].

Today, organizations offer many financial innovations like SEO (Search Engine Optimization (SEO), Financial Technology (Fintech), Software as a Service (SaaS), Application Software, and Digital Marketing, to publicize their firms' products or services [35]. Marketing strategies and financial innovation with risk management tools aid in reducing incorrect decision-making through new product development, technological projects, and digital innovation ([13].

Digital innovation has also led to the fintech phenomenon, which disrupts traditional banking and provides customers with innovative financial techniques.

This system is transparent and secure for both companies and customers, making online transactions the preferred choice [12].

Digital marketing plays a mediating role in creating a significant arena for fintech and financial inclusion.

The commercial banking sector has adopted benchmark marketing strategies to exploit available financial technology [2].

Reconceptualization and reevaluation have gained prominence since the 2008 financial crisis [20]. The financial market has undergone significant transformation as a result of the development of digital platforms and incorporation of artificial intelligence [7], [28], [16]. These products include blockchain technology [17], [18] financial digitalization [33], [6], [26], and Internet lending platforms [16]. However, the collection and evaluation of the present state of financial innovation research have received little attention. Conducting a thorough examination of contemporary publications pertaining to financial innovation is important. As a mature and significant field of intelligence science [4], [36] bibliometrics can assist in analyzing the theory and application of financial innovations and reviewing existing papers [21], [19]. Additionally, it investigates the most recent advances in research and forecasts potential development trends while considering every document in the field of financial innovation. Consequently, it has garnered considerable interest and has been implemented in research across numerous journals and areas.

This method has found extensive application in various research domains, including, but not limited to, business and economics, and fuzzy decision-making [22], [23]. Drawing upon the benefits of bibliometrics, this study compiles all scholarly publications sourced from academic websites, analyzes the fundamental characteristics of current works, and subsequently identifies the dynamic trends across various sub-periods. In the context of science mapping analysis, Vosviewer [34] was chosen as the visualization tool to effectively represent various key networks. These networks include the cooperation network of countries/regions, journals' co-citation network, co-occurrence network of author-keywords, burst detection, and timeline visualizations. Despite the extensive research conducted on the subject, it was discovered that there is a lack of comprehensive literature on innovative marketing strategies based on the consumer approach. Owing to the highly dynamic and intense nature of technological markets, there is a pressing need to prioritize innovative developments.

Additionally, there is a shortage of bibliometric analyses that combine marketing strategies and financial innovation.

Therefore, this study aims to conduct a bibliometric analysis of this theme to further our understanding of this topic.

2. Material and Methods

Bibliometric analysis is a highly specialized field that encompasses the use of mathematical and statistical tools to analyze a specific subject area. This analytical approach focuses on various factors, including the number of publications, citations, author co-citations, and keyword clustering. By examining these metrics, valuable insights into the trends and relationships among authors, organizations, and countries in a given research area is gained. This, in turn, helps us to better understand the evolving trends and academic discourse within the subject matter and ultimately enables us to conduct more informed and effective research in the future. In this study, bibliometric analysis was performed using VOSviewer software [10], [21]. The data were extracted from the Scopus and Dimensions databases to perform co-authorship and co-occurrence analyses.

2.1. Research Design

This bibliometric analysis aims to pinpoint the key research domains that are currently thriving and holding considerable sway in the realm of digital innovation as it pertains to manufacturing [1], [25]. To achieve this, unprocessed data was gathered from the Scopus and Dimensions databases. There were 91,240 papers available on Scopus with the Boolean operator

OR between ‘Marketing Strategies’ and ‘Financial Innovation,’ out of which 71,371 are in the time frame between the period of 2014-2023; and 809,627 on dimensions, out of which 258,094 are all open access. Therefore, the data extraction process was executed in this specific study. Considering the structural features, publications, citation sources, and authors’ correlation with country/organization contributions are being accumulated. The researcher included 296 papers in the recently performed analysis after obtaining papers correlated with the stream of marketing strategies and financial innovation as a whole. The Boolean operator AND has been used with the terms ‘Marketing Strategies’ and ‘Financial Innovation’ for data extraction. This research encompassed all publications from 1989 to 2023. The following steps were followed to perform the search:

- The Boolean Operator OR has been used to individually check the stream's availability in the research database as ‘Marketing Strategy “or Financial Innovation. Co-authorship and co-occurrence analyses were performed using this database.
 - Boolean Operator AND has been used with the Marketing Strategy and ‘Financial Innovation’ on the Scopus database website, along with setting the timeframe from 1989 to 2023 to implement the data extraction process. Country affiliations, bibliographic coupling, content analysis, and co-citation analysis were performed as per this database to facilitate the evaluation of trends in the future.
- The dimension database was searched to include it in the study and create a scope for future research with the same key words and Boolean operators.

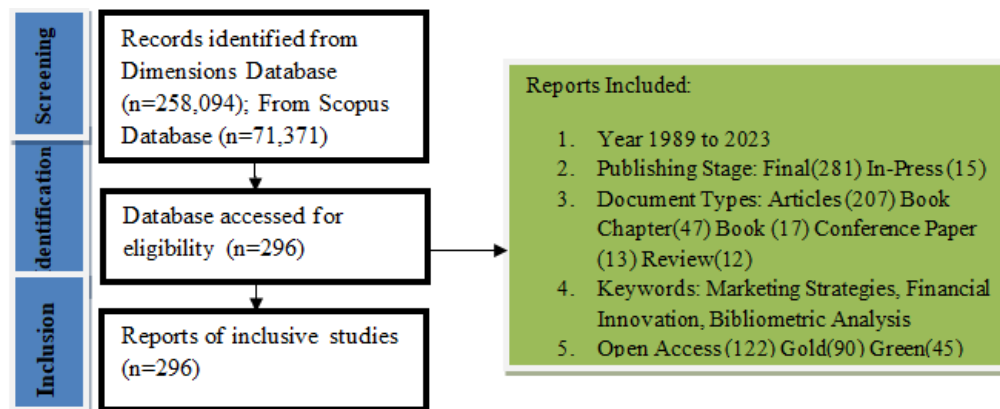


Figure 1. PRISMA flow chart

3. Results

Before conducting a bibliometric analysis, a marketing strategies and financial innovation. The SLR systematic literature review was conducted on results are listed in Table 1.

Table 1. Marketing strategies and financial innovation: SLR approach

Author Name with year of publication	Journal Name	Topic	Variables in the study	Method of Analysis	A major contribution to the existing literature
Zaher Al-Salehat, (2003)	Business: Theory and Practice	Fintech and Financial Inclusion: The Mediating Role of Digital Marketing	Efficiency, Effectiveness, Satisfaction, and Accessibility	Structural Equation Modeling	The impact of Digital Marketing on the relationship between Financial Technology and Financial Inclusion will give an understanding of finnovational policy designing for effective marketing strategies.
Diéguez, A Irimia Martín, F Velicia Camacho, M Aguayo, (2023)	Financial Innovation	Predicting Fintech Innovation Adoption: the Mediator Role of Social Norms and Attitudes	Usage Intention, Perceived Behavioral Control, Self-Efficacy, Subjective Norms, Attitude	Structural Equation Modeling Theory of Reasoned Action (TRA), Theory of Planned Behavior (TPB)	Contribution to the richness of literature available to predict TPB and TRA for giving significant information to banks and fintech companies which will help in improvising organizational performance management through innovative marketing strategies.
Tang, Yuk Ming and Lau, Yui-yip, (2023)	Journal of Theoretical & Applied Electronic Commerce Research	Empowering Digital Marketing with Interactive Virtual Reality (IVR) in Interior Design: Effects on Customer Satisfaction and Behaviour Intention	Website Aesthetics, Ease of Use, Information Quality, Customer Satisfaction, Behavioral Intention	Confirmatory factor Analysis (CFA), (SEM)	Digital Marketing strategies work positively to satisfy customers and create their behavioral pattern towards accepting fintech innovation which is related to financial series/product increment.

Mohammad Fawzi Shubita, (2023)	Innovative Marketing	Relationship between marketing strategy and profitability in industrial firms: Evidence from Jordan	Sales Expense Ratio, ROA, Profit Margin, Assets Turnover	Regression Model	Role of ROA (Return on Assets) in finalizing marketing strategy level to control all the planning and operational activities and financial issues.
Safdar Husain, Tahir, Said Shah, Fatima Arif, Gulzar Ahmad, Qaria Aziz, Muhammad Rizwan Ullah, (2018)	Journal of Innovation Economics & Management	Does financial innovation improve performance? An analysis of process innovation used in Pakistan	Transaction Costs, Banking Services	Granger Impact Appraisal, Multiple Regression Models	Financial Innovation methods of making payments like ATM, POS, and MOB through online platforms provide an option for customization to its customers as well as the service providers to think creatively to satisfy customers using financial services. Marketing strategies that would help in making the customers aware are being suggested for fintech companies and others who are associated with the same.
Nagasimha Balakrishna Kanagal, (2015)	Journal of Management & Marketing Research	Innovation & Product Innovation in Marketing Strategy	Consumer Lifestyle, Preferences, Product quality, product features	Primary Interview Method	Various kinds of innovation in marketing strategies and their impact over the unification and product performance is creating research breakthroughs that can be implemented in the field of finance also.
Gary Biglaiser, Joshua Gans, Brad Graham, Rune Stenbacka, (2006)	Journal of Economics & Management Strategy	Marketing Innovation	Consumer Transaction costs, Innovating Firm, Competition Intensity, Private Incentive	Dynamic Duopoly Model	The analytical framework helps in getting a gist of marketing innovative techniques that could help in making customers aware and satisfied. It will further develop economic markets and aid in financial benefits.
Robert C. Merton, (1992)	Journal of Applied Corporate Finance	Financial Innovation & Economic Performance	Financial system, Capital Market	Descriptive Model	Financial Innovation will create a bond between the financial system and the financial market to provide benefits for the masses, potential customers, and users.

Peter Doyle & David Cook, (1980)	Journal of Business Research	Marketing Strategies, Financial Structure, and Innovation in U.K. Retailing	Return on Net Worth, Asset Turnover, Leverage Ratio, Net Profit	Financial Planning Model	The pattern through which market positioning can be understood at the time of financial innovation and marketing strategies to help in growing UK retailing businesses. An integrated strategy can give a market share for effective marginal structuring.
Stephen A. Ross, (1989)	The Journal of Finance	Institutional Markets, Financial Marketing, and Financial Innovation	Financial innovation, Role of Marketing	Theory of Financial Markets & Innovation, Marketing Cost Structure	Institutional market's significance in creating space for financial market services with the help of innovational technologies.

3.1. Bibliometric Analysis Results

Bibliometric analysis for evaluating financial innovation, as per the Scopus and Dimensions database, was performed to identify citation structuring and affiliated countries with institutions in this field [21]. To identify the performance of banks and liquidity risk in the arena of fintech in collaboration with financial innovation, a bibliometric analysis of the literature available for creating policies to avoid these

risks has been performed for the timeline 2010-2017. Co-authorship analysis for finding influential authors, co-occurrence analysis map for terms mostly used in research publications, and keyword analysis were performed. There has been an immense shift that can be seen in the trend analysis performed for 1989, in which only 2,346 studies were performed in this arena compared to 2023 with 40,024 studies. This benchmark in the research arena has been evident for academics, researchers, and policymakers.

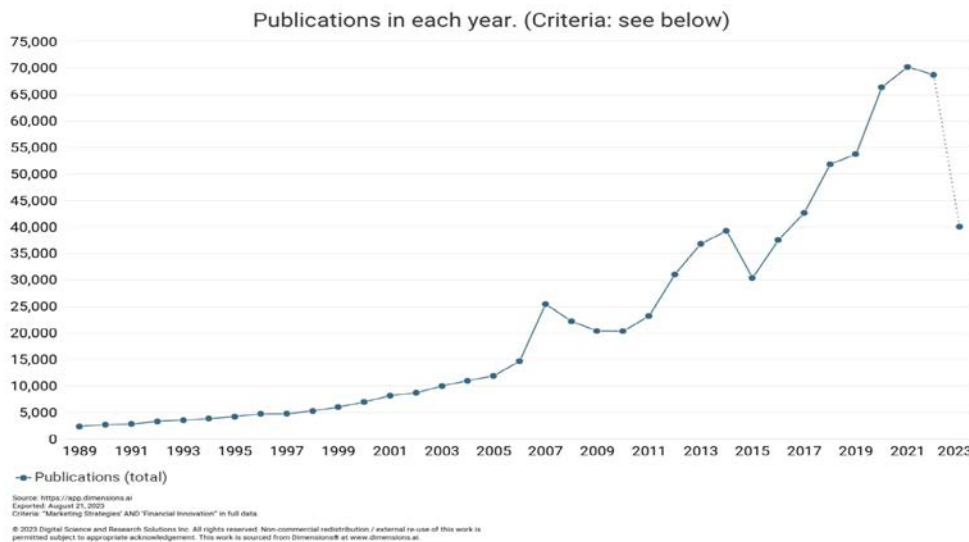


Figure 2. Publications trend analysis 1989-2023, Source: Dimensions

‘Marketing Strategies’ OR ‘Financial Innovation’- To wider the range of research the bibliometric analysis is bifurcated into two parts: Use of Boolean operator OR to understand both the streams studies deeply, and usage of AND for accumulating the

relationship between both the arena and conducting in-depth analysis. Co-authorship mapping, co-occurrence, country affiliations, and documentation per subject stream were performed.

3.2. Co-Authorship Mapping

According to the co-authorship analysis, 71,371 documents were available, of which 2000 databases were extracted for the final analysis. In Figure 3, the full counting method showed 40,882 authors, of which 472 met the threshold and formed 14 clusters with

3926 links. Several color nodes define the links that are being shown and mentioned as a cluster formation in this network visualization for marketing strategies OR financial innovation. The red node named Y. Wang was the most influential author, with maximum linkage and total link strength among all available authors.

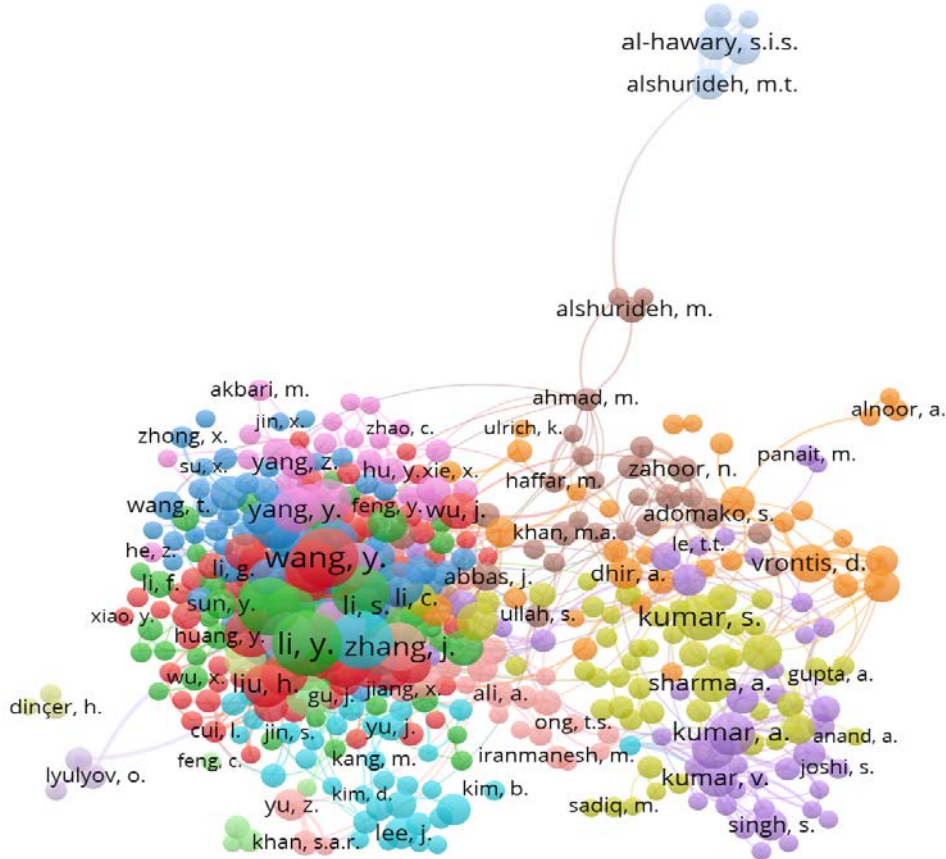


Figure 3. Co-authorship analysis; Source: VOSviewer.

3.3. Co-Occurrence (Keyword) Analysis

Keyword analysis was performed to identify the keywords that were mostly seen in the articles. In Figure 4, out of the 51893 keywords, 413 met the threshold with a minimum of 50 occurrences of a keyword. Five clusters were formed with 39073 links. Cluster 1 (123 items) in red color denoted ‘**Innovation**’ related keywords with maximum links 406 and occurred 1255 occurrences. Likewise, cluster 2 (111 items) in green color ‘**Commerce**’ related keywords with 387 links and 530 occurrences. Cluster 3 (76 items) in blue color presented ‘**Sustainable Development**’ with 405 links and 1095 occurrences. Cluster 4 (58 items) in yellow color ‘**COVID-19**’ with 393 links and 1075 occurrences. Cluster 5 (45 items) in

purple color denoted ‘**Sustainability**’ as the most used key term with 404 links and 1207 occurrences.

In Figure 5, a co-occurrence map is formed using the VOSviewer software, considering the title and abstract as the field. Of the 10,931, 157 terms met the requirement with 125 minimum number of occurrences of a term. As per the inclusion criteria, 60% were relevant; therefore, the selected terms were 94. Three clusters with 3713 links and 17003 links as the total link strength were formed. Cluster 1 with 54 items in red color denoted ‘**Development**’ with 93 links, 945 total link strength and 121 occurrences. Cluster 2 with 37 items in green color denoted terms related to ‘**Data**’ with 92 links, 1255 total link strength and 149 occurrences. Cluster 3, with only three items formed in blue color ‘**COVID**’ with 93 links, 1060 overall link strengths, and 126 occurrences.

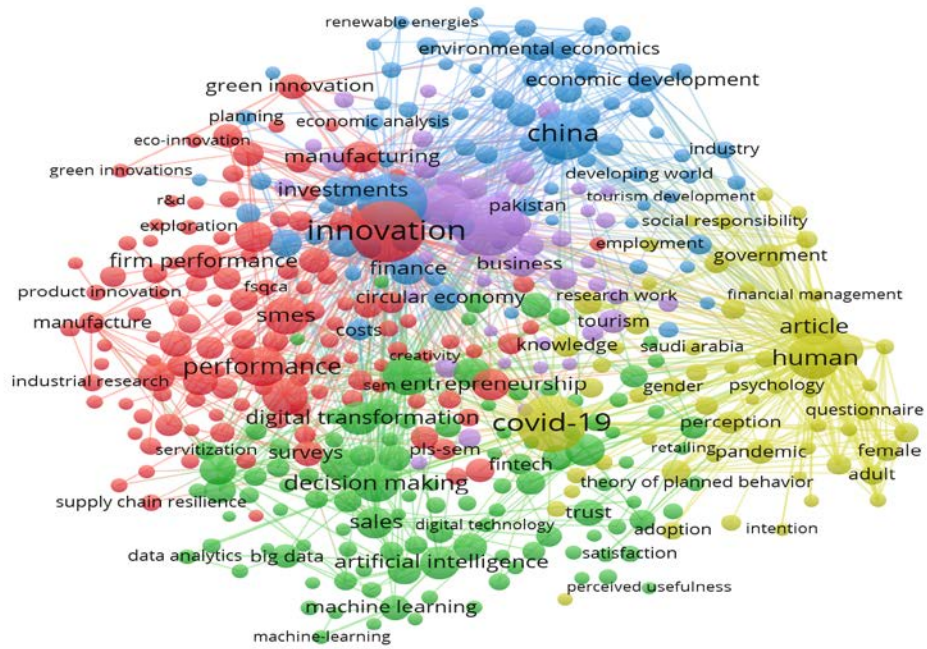


Figure 4. Keyword analysis; Source: VOSviewer

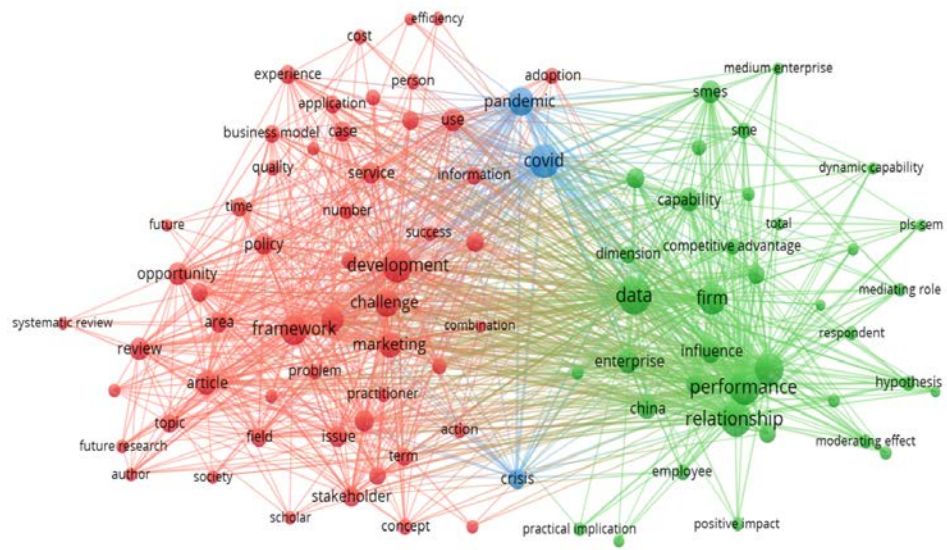


Figure 5. Co-occurrence map; Source: VOSviewer

Table 2. Country affiliations and documentation as per subject area

Country	Publications
United States	11710
China	9238
United Kingdom	8064
India	4814
Australia	4165

It can be observed that in Table 2 above, the United States is in the first position with most of the publications related to the field of financial innovation and marketing strategies, followed by China with 9238

publications in second place and the United Kingdom in third place with 8064 publications. Researchers and scholars of Indian origin have the right time to increase research in these innovative fields.

Table 3. Documents as per subject area

Subject Area	Documents
Business, Management and Accounting	45777
Social Sciences	19134
Economics, Econometrics and Finance	17465
Computer Science	10630
Engineering	10401

In Table 3, the subject areas are covered along with the aforementioned streams to identify the actual research work that has been executed until now. In the business, management, and accounting fields, 45777 documents are in the records and are in the top position, followed by social sciences with 19134 documents and economics and finance with 17465 documents.

‘Marketing Strategies’ AND ‘Financial Innovation’: This is the second part of the bibliometric analysis where Boolean Operator AND has been used to establish marketing strategies and financial innovation. Co-citation analysis, citation as per countries, authors as per citations, bibliographic coupling, content analysis, and documentation as per sources were evaluated.

3.4. Co-Citation Analysis

In Figure 6, co-citation analysis was performed, and out of 35179 cited authors, 51 met the threshold with a minimum of 25 citations of each author. Four Clusters with 19220 total link strengths and 737 links formed. As a result, the most cited author was E.G.. Popkova has 239 citations and 4281 total link strengths, followed by B.S.. Sergi with 149 and 3280 strengths of total linkages, and Y.V. Ragulina has 70 citations and 1817 link strength. In Figure 7, country affiliation can be observed through citations. The most influential country according to citations is China with 1157 citations and 44 documents, followed by the United Kingdom with 1034 citations and 21 documents, and the United States with 759 citations and 25 documents. India, with 198 citations and 21 documents, needs to be cited more to be present in the race and excel compared to others.

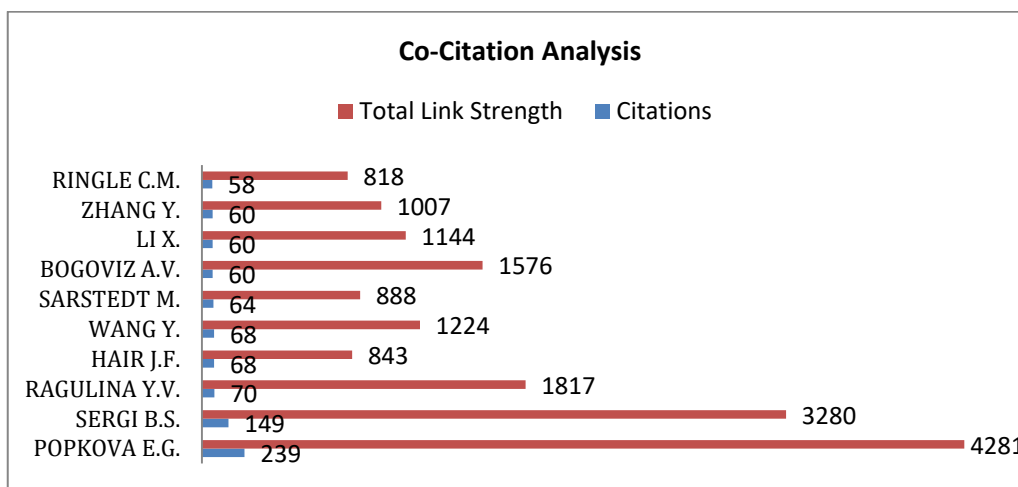


Figure 6. Co-citation analysis

In Figure 8, out of 288 authors, 52 met the threshold, with a minimum number of 15 citations. The trends showed that Storey C. and A. Jhone had 493 citations for one document, followed by R.P.J.

Rajapathirana, Y. Hui with 395 citations for one document and in third position, I.C.L. Ng ; S.Y.N. Wakenshaw hold the place with 374 citations and 1 document.

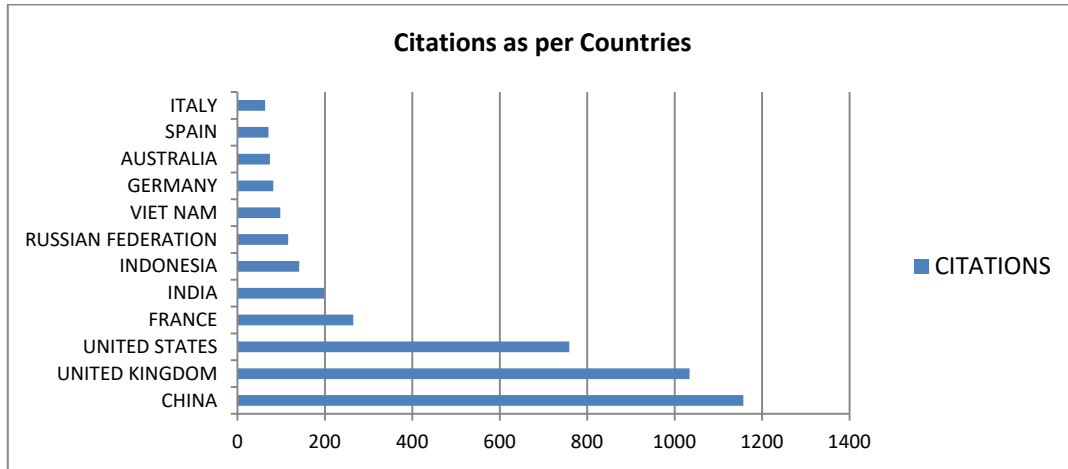


Figure 7. Citations as per countries; Source: Author's contribution

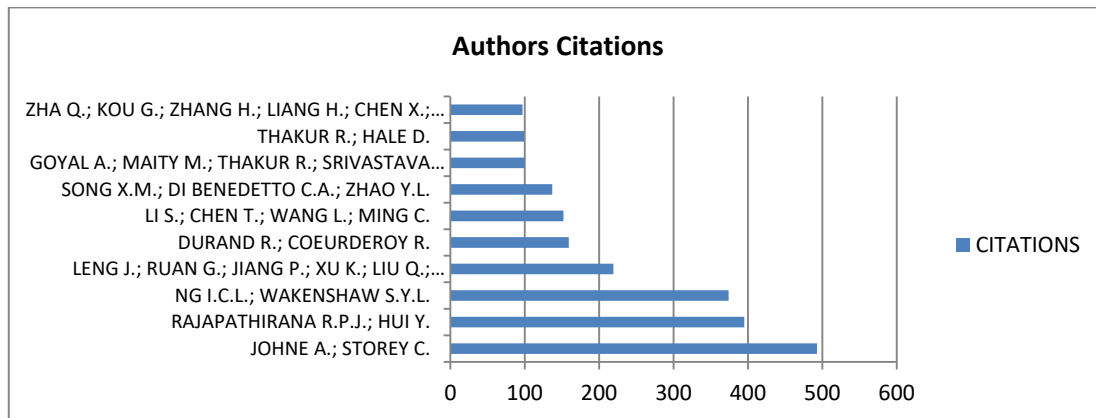


Figure 8. Authors citations; Source: Author's contribution

3.5. Bibliographic Coupling

Out of 205 sources, 39 met the threshold with a minimum of two documents. Sustainability (Switzerland) with an orange node and the Journal of

Islamic Marketing with a red node represent the most visible bibliographic coupling. Bibliographic coupling is used to measure the similarity between two documents based on their shared references.



Figure 9. Bibliographic coupling

3.6. Content Analysis

In Figure 10, it can be seen that the term ‘Study’ is having 1.54 relevance score with a maximum of 76 occurrences showing the research work which is going on in this arena. ‘Impact’ has 37 occurrences with 1.07 and then ‘Development’ with 29 occurrences and relevance score of 1.24 as a whole. In Figure 11, the term “Marketing Strategy” has 17 occurrences with a

total of 22 link strengths and has become a hot topic of research. Likewise, ‘Commerce’ with 15 occurrences and 48 total link strength and ‘Innovation’ with 12 occurrences and 21 total link strengths. Quantitatively, these terminologies are open for creating research content with many unturned stones that could be of great initiation for this research stream growth as a whole.

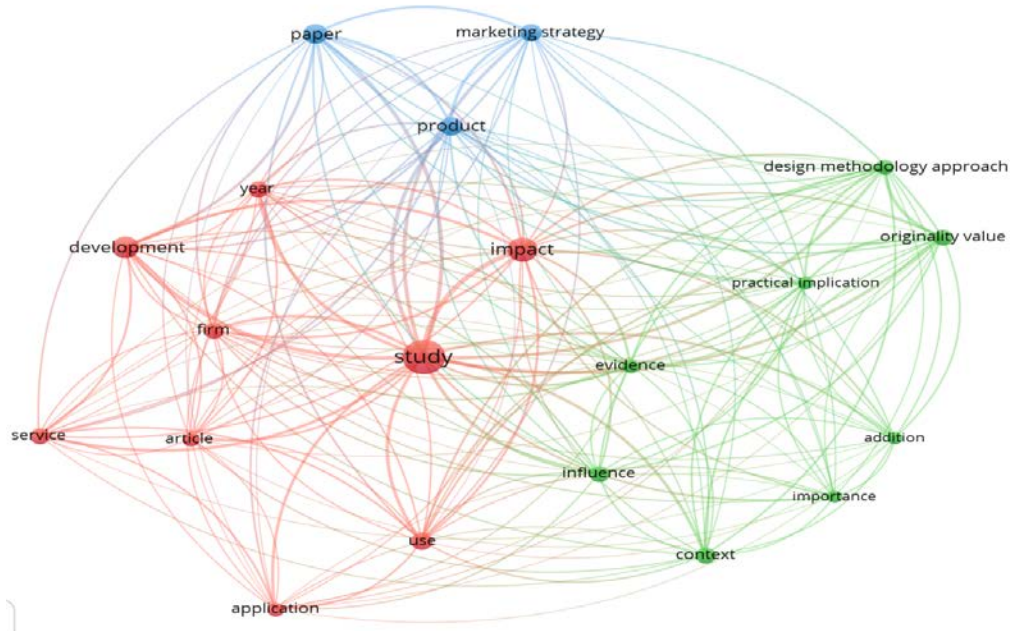


Figure 10. Content analysis (Titles & Abstract); Source: VOSviewer

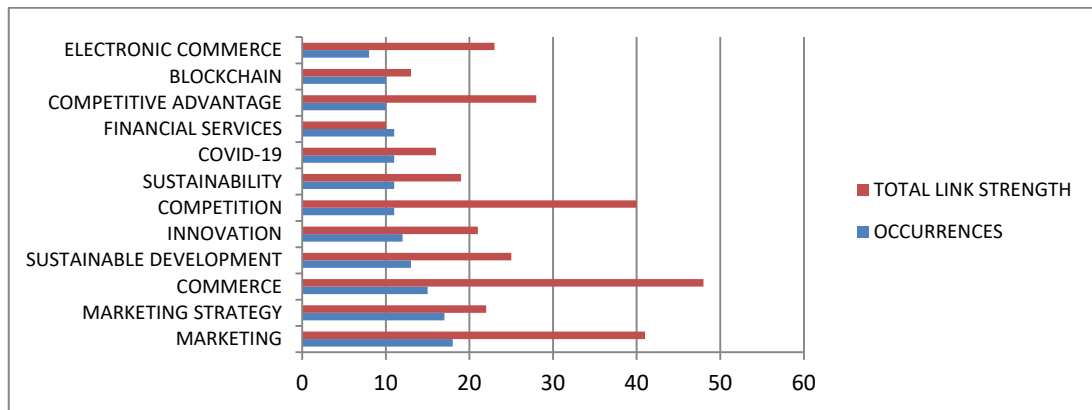


Figure 11. Content analysis (All Keywords); Source: Author’s contribution

3.7. Documents by Sources

‘European Journal of Marketing’ comes in first position with 497 citations for 2 documents, in second place is ‘International Journal of Research in

Marketing’ with 386 citations for 2 documents, and in third place is ‘Financial Innovation’ with 136 citations for 5 documents.

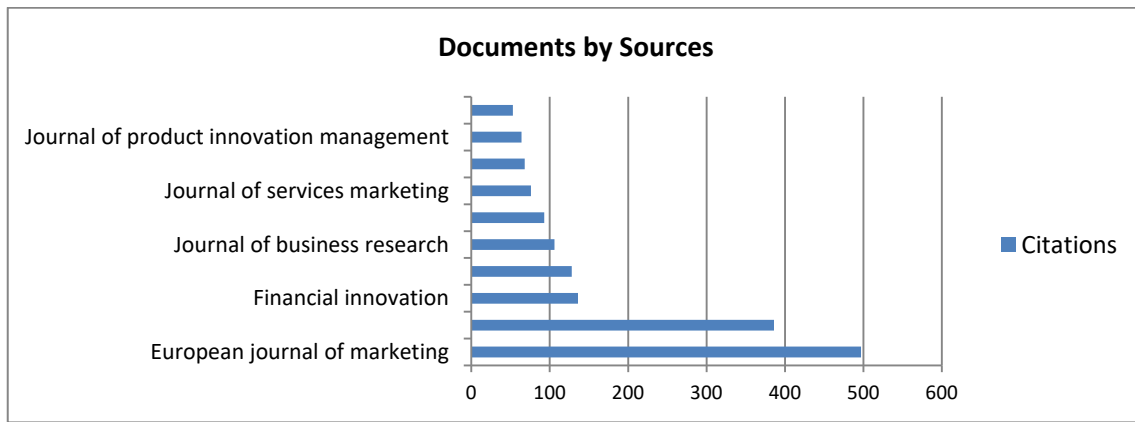


Figure 12. Documents by source; Source: Author's contribution

4. Conclusion

This study identifies the association between marketing strategies and financial dimensions, which could help create a broader perspective on financial services, customer behavioral patterns, and their decision to use the available trends for satisfaction. This study has an impact on sustainable economic growth.

Using bibliometric analysis, the most cited sources were identified, the countries' affiliations, the bibliographic coupling of various sources, the most cited authors, and citation analysis, along with trends that have been followed since 1989.

In terms of research lineage, the timeline is taken as a rough time divider, with the research before laying the theoretical foundation. This research focuses on theoretical construction and practical exploration in the context of recent innovative financial techniques in relation to marketing strategies. This study classifies the types of marketing strategies like content marketing, social media marketing, influencer marketing, SEO, PPC (Pay-per-click Advertising), and financial innovations like blockchain technology, P2P lending, Robo-advisors, digital wallets, cryptocurrencies, and microfinance platforms in the review of literature portion.

The trend analysis shows an all-time record of high publications in the year 2021, that is, 70,196 in the dimensions database, which is slightly low in the year 2023 with 40,024. It is necessary to work more on both of these concepts through an eye-opening aspect. Co-citation mapping shows the role of affiliated countries, and co-authorship presents the most influential authors and the sources that are provided with the related conceptualization. Co-occurrences present trending keywords that are inculcated with the help of titles and abstracts of the research studies performed.

Several innovative techniques through artificial intelligence, financial technology, the Internet of things, machine learning, blockchain, and many more are being inculcated to revolutionize the market, especially in the financial sector. Fintech has been the most researched arena, in combination with financial innovation, financial marketing, blockchain, and crowdfunding. With the help of other statistical tools, more stones can be unturned in the arena of financial innovation by collaborating with marketing strategies.

In the future, more qualitative and statistical studies can be conducted, taking into consideration some of the marketing strategies and comparative databases as per surveys that can be conducted at the global level to establish good and innovative financial businesses. Furthermore, future studies can be undertaken with various impacting factors to design marketing strategies, and the dimensions of financial innovation can be explored further for in-depth research and outcomes.

5. Limitations, Implications and Future Research

This study has a few limitations in the following areas: First, the main stress is given to the analysis methodology through a bibliometric approach to find the significance and impact of a document by the available number of citations it receives, and the adoption of the algorithm itself has few limitations. Thus, there is a possibility of failure to identify and accumulate recently published and significant literature in this research study. The researchers tried to avoid this error in the identification of literature and analysis with the help of manual screening and deep reading; however, few omissions were present. Second, the subject of this study is marketing strategies and financial innovations, providing outcomes in the applicability of our findings in various streams that are still to be verified.

Third, financial innovation remains a recent topic, following the research trend. Therefore, it is still in the proliferation phase and the findings of this study require further adjustments and elaboration in the future. Fourth, the dimensions of marketing strategies related to the financial system require further attention. To fill the gaps in the conceptual research conducted by respected academicians and academics, various databases on AI and fintech, IOT, and fintech novel strategies can also be explored in the future. Understanding the financial market affects customer perceptions and attitudes toward its use because financial innovation includes innovations in products and services of a financial nature.

To create a much better arena for performing research in the field related to marketing strategies and financial innovation, and to fill the gaps in existing research, discussions of financial services, including marketing tactics, can be covered, along with recommendations for future research. Researchers and academics have developed the theoretical background of marketing strategies and financial innovation, but the scale of measurement needs to be improved. The study's practical consequences include presenting a broader perspective on innovative marketing tactics to raise customer awareness of the financial products and services available in the market.

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