



Financial Literacy and Banking Sector: A Bibliometric Analysis of Scientific Research Papers

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ABSTRACT

Financial literacy is the knowledge and skills to manage money effectively, including budgeting, saving, investing, and borrowing. It empowers individuals to make informed financial decisions aligned with their goals, essential for navigating financial complexities and achieving financial well-being. This article aims to do a systematic literature review on financial literacy in the banking sector to identify the research gap in the Nepalese context. The study is based on the systematic literature review using the Bibliometric analysis of scientific research articles published online through Dimension.ai. The data were searched by covering the year from 1992 to 2024 with the keyword 'Financial Literacy & Banking Sector'. A total of 283 articles were found in Dimension.ai then it was analyzed from the Virtual Object System (VOSviewer). The findings of the review show that the data on financial literacy in the banking sector revealed a significant increase in publications and citations over recent years, with notable contributions from India and key institutions like the Indian Council of Social Science Research (ICSSR) and Jawaharlal Nehru University (JNU). However, the recent decline in the percentage of cited publications indicates a need for improved research quality. The findings of this study give new knowledge about the prevailing status of scientific studies on financial literacy and its impact on the banking service. However, in the Nepalese context, no studies are found in Dimension.ai. So, it is recommended that researchers focus on producing high-quality, impactful studies and foster greater academic collaboration to enhance visibility and influence. Supporting underrepresented regions in financial literacy research can further diversify and strengthen the field.

1. INTRODUCTION

Financial literacy refers to the knowledge and understanding of various financial concepts, such as budgeting, saving, investing, borrowing, and managing money

effectively. It involves having the skills and confidence to make informed financial decisions that align with one's financial goals and circumstances. Financial literacy is essential for individuals to navigate the complexities of the financial world, make

sound financial choices, and ultimately achieve financial well-being (Hasan et al., 2021). Financial literacy helps individuals develop the knowledge and skills to compare and choose the best financial products and services, ultimately increasing their access to banking services. Without access to banking services, financial literacy alone cannot enhance financial well-being (Kumar & Bansal, 2021).

Financial literacy creates awareness among customers about the available financial services from formal financial institutions. Lack of awareness and financial literacy is a major reason for financial exclusion in India, with people depending on informal sources like money lenders (Dsouza & Prakash, 2023). Similarly, financial literacy positively impacts financial inclusion and rural development in India. It is an essential part of financial inclusion, which is important for socio-economic development (Gautam et al., 2022). In the context of specific groups, such as rice farmers in Pakistan, financial literacy is affected by factors like age, education, distance to nearby cities, ownership of bank accounts, annual income, and financial education experience. The accessibility of credit services is also impacted by the area of cultivated land, interest rate, collateral, farms' income, financial literacy index, credit accessibility experiences, the legal status of farmer groups, and the amount of a loan (Raza et al., 2023). Another study found that Cypriot consumers increasingly need financial sophistication to manage digital banking services effectively, yet financial literacy remains low, with only 37.33% of survey respondents demonstrating financial knowledge proficiency. The findings show a statistically positive relationship between financial knowledge levels and the frequency of Internet banking use (Andreou & Anyfantaki, 2021).

Bibliometric analysis is a quantitative method used to evaluate academic literature by analyzing citation patterns, publication output, and collaborative relationships. It includes techniques like citation and co-citation analysis,

bibliographic coupling, and productivity assessment to measure the impact and influence of researchers, articles, and journals. Key metrics such as the H-index and journal impact factor are used to assess research performance. This analysis helps identify influential works, emerging trends, and collaboration patterns, aiding in research funding decisions, policy-making, and strategic planning in academia.

Increased financial literacy can help financial institutions by suggesting future programs, thus increasing the frequency of digital banking. Digital banking has grown in recent times due to its perceived security and diverse services compared to traditional banking (Mothey et al., 2024). Financial literacy is crucial for increasing access to formal banking services, promoting financial inclusion, and enabling the adoption of digital banking services. Governments and policymakers should target vulnerable groups and design strategies to enhance financial literacy (Gautam et al., 2022; Hasan et al., 2021). Financial literacy can be supportive to increase the performance of banking services so this study aims to identify the publication status of scientific research articles related to financial literacy and banking sectors. This study supports in identification of the research gap in the Nepalese context.

The data demonstrates a significant growth trend in publications on financial literacy in the banking sector over the decade, with a peak in 2023. The data was collected from Dimension.ai on 18 May 2024 so publications are shown less in number in 2024 but the number can be increased. There is a research gap in the Nepalese context on the relationship between the financial literacy and banking sectors so this research can be valuable for the policy maker, banking sectors' management, and researchers. The findings of this Bibliometric analysis of scholarly articles supported to identification of the research gap for further research so the author is encouraged to continue this study in the Nepalese context.

2. METHODOLOGY

The study was based on the systematic literature review of scientific journal articles which is commonly used to know the findings of previous studies on the concerned research topic (Karki et al.,

2024). It identified the status of research studies on financial literacy and the banking sector from the online published articles from Dimension.ai. the following process was used to search the article:

Table 1: Process of article search

| | |
|--------------------------|---------------------------------------|
| Data source | Dimensions.ai |
| Keywords | Financial Literacy and Banking Sector |
| Keywords Search in | Title and abstract |
| Publication Year covered | 1992 to 2024 |
| Total articles | 283 |
| Data collection date | 18 May 2024 |

This article was prepared by using the bibliometric analysis method which was used by previous authors in other fields of research (Mahat et al., 2024).

The study was based on the descriptive research design which quantitatively describes the number of publications, citations, countries, and organizations.

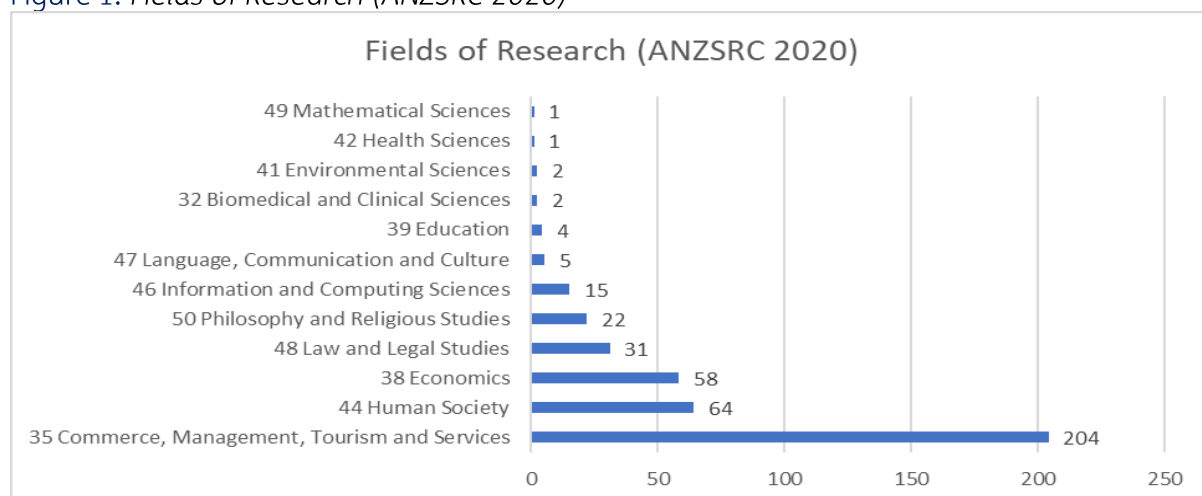
3. FINDINGS

3.1 FIELD OF RESEARCH

The table provides a breakdown of research publications related to financial literacy within various fields of research according to the ANZSRC 2020 classification. The "Commerce, Management, Tourism, and Services" category dominates with 204 publications, reflecting the strong emphasis on financial literacy in business and management

contexts. This indicates a significant focus on practical and applied aspects of financial literacy, particularly on commercial and managerial practices. Following this, the "Human Society" category had 64 publications, highlighting the societal and behavioral dimensions of financial literacy, including its impact on communities and individual financial behaviors.

Figure 1: Fields of Research (ANZSRC 2020)



Source: Dimensions.ai, 18 May 2024

Other notable categories include "Economics" with 58 publications, underscoring the theoretical and macroeconomic perspectives on financial

literacy, and "Law and Legal Studies" with 31 publications, pointing to the legal and regulatory aspects relevant to financial literacy. "Philosophy and Religious Studies"

(22 publications) and "Information and Computing Sciences" (15 publications) indicate interdisciplinary approaches, incorporating ethical considerations and technological advancements in financial literacy. The remaining categories such as "Language, Communication and Culture" (5 publications), "Education" (4 publications), and others like "Biomedical and Clinical Sciences," "Environmental Sciences," "Health Sciences," and "Mathematical Sciences" each with 1-2 publications, suggest that while financial literacy was

primarily concentrated in business and social sciences, it also intersects with a wide range of other fields, albeit to a lesser extent. This diverse spread indicates the broad applicability and relevance of financial literacy across different domains of research.

3.2 PUBLICATION TOTAL FROM 2015 TO 2024

Figure 2 illustrates the growth in publications related to financial literacy in the banking sector from 2015 to 2024.

Figure 2: Publications (Total)



Source: Dimensions.ai, 18 May 2024

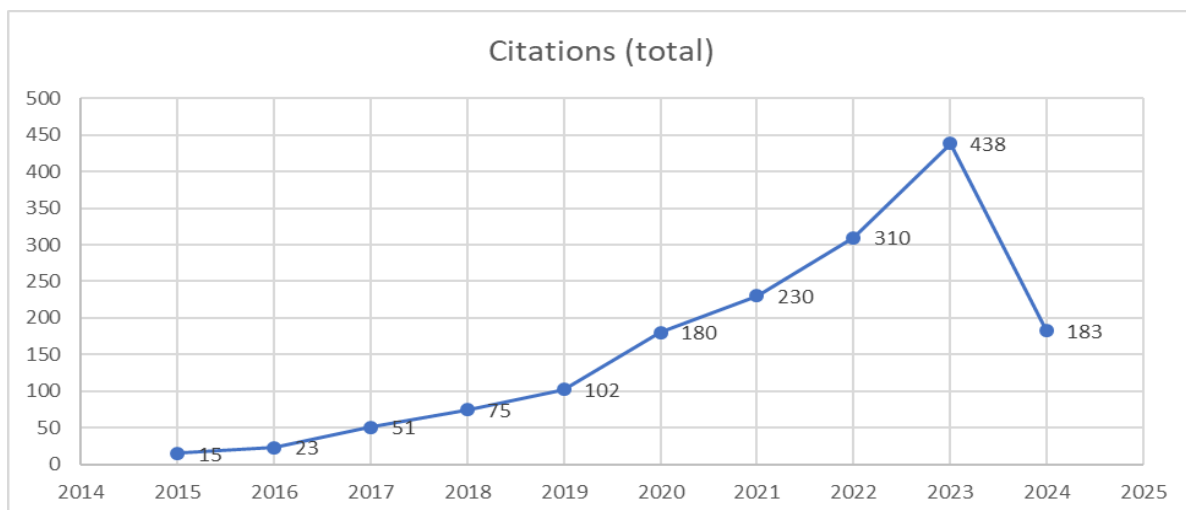
In 2015, there were only 5 publications, indicating limited focus on the topic. This number nearly doubled to 9 in 2016 and continued to rise steadily to 11 publications in both 2017 and 2018. A notable increase occurred in 2019, with 17 publications, reflecting a growing interest and recognition of the importance of financial literacy. The upward trend accelerated significantly from 2020 onwards, with 27 publications in 2020, 36 in 2021, and a substantial jump to 51 in 2022. The peak was reached in 2023 with 71 publications, indicating heightened emphasis and perhaps increased initiatives in financial literacy within the banking sector. However, in 2024, there was a marked decline to 28 publications, which, while still higher than the earlier years, suggests a possible shift in focus or consolidation of previous efforts. Overall, burgeoning interest and possibly the initiation of more comprehensive research and discussions on financial literacy in the banking sector.

the data demonstrates a significant growth trend in publications on financial literacy in the banking sector over the decade, with a peak in 2023 followed by a notable decrease in 2024.

3.3 TOTAL CITATIONS FROM 2015 TO 2024

The table shows the annual total citations of publications related to financial literacy in the banking sector from 2015 to 2024. In 2015, the topic received minimal attention, with only 15 citations, indicating its nascent stage in academic and professional discussions. This number increased to 23 in 2016 and saw a significant rise to 51 in 2017, suggesting growing recognition and engagement with the subject. The upward trend continued steadily with 75 citations in 2018 and a substantial jump to 102 citations in 2019. The sharp increases in these years reflect a

Figure 3: Citations (Total)



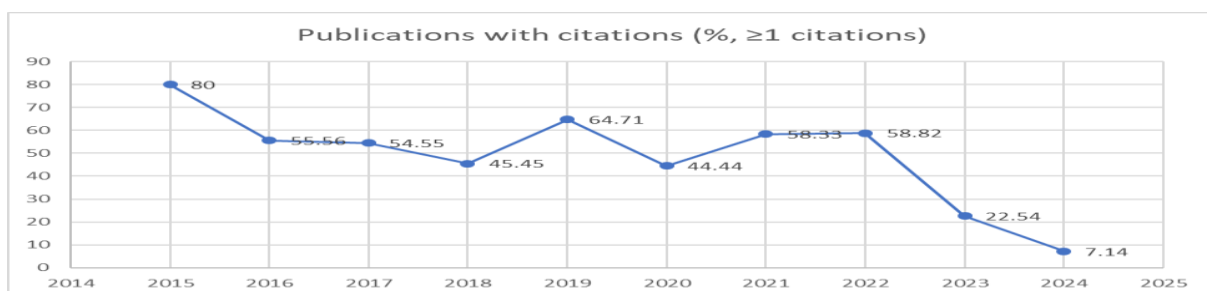
Source: Dimensions.ai, 18 May 2024

From 2020 onwards, the citations surged markedly, with 180 citations in 2020 and 230 in 2021, illustrating a period of heightened academic and industry focus on the topic. This growth peaked in 2023 with an impressive 438 citations, indicating widespread recognition and the critical importance of financial literacy within the banking sector during that year. However, 2024 saw a significant drop to 183 citations, which, while still high compared to the earlier years, suggests a potential shift in research focus or the culmination of key discussions and studies in previous years. Overall, the data indicates an increasing trend in the academic and industry emphasis on financial literacy in the banking sector, peaking in 2023, followed by a notable decrease in 2024.

3.4 PUBLICATION WITH CITATION

The table presents the percentage of publications on financial literacy in the banking sector that received at least one citation each year from 2015 to 2024. In 2015, a substantial 80% of the publications were cited, indicating that a significant portion of the early research garnered attention and was deemed relevant by the academic community. This percentage decreased in the following years, with 55.56% in 2016 and 54.55% in 2017, reflecting a slight decline in the proportion of cited works. The trend continued downward in 2018, where only 45.45% of the publications received citations, suggesting a period where fewer studies gained recognition or perhaps a saturation of similar research themes.

Figure 4: Publications with citations (% , ≥1 citations)



Source: Dimensions.ai, 18 May 2024

In 2019, the percentage of cited publications increased to 64.71%, demonstrating a resurgence in the

relevance and impact of research in that year. However, 2020 saw another drop to 44.44%, which could indicate either a

dilution in the quality or novelty of publications or a highly competitive academic environment with numerous contributions. The percentage rebounded in 2021 and 2022, with 58.33% and 58.82% of publications being cited, respectively, suggesting renewed interest and valuable contributions in those years. Notably, in 2023, only 22.54% of the publications were cited despite the highest number of publications in that year, indicating a possible oversupply of research or a focus on quantity over quality. By 2024, the percentage plummeted to 7.14%, showing a significant decline in the impact and recognition of the publications, potentially due to shifting research priorities or diminishing novelty in the financial literacy discourse within the banking sector.

3.5 CITATION-WISE TOP TEN COUNTRIES

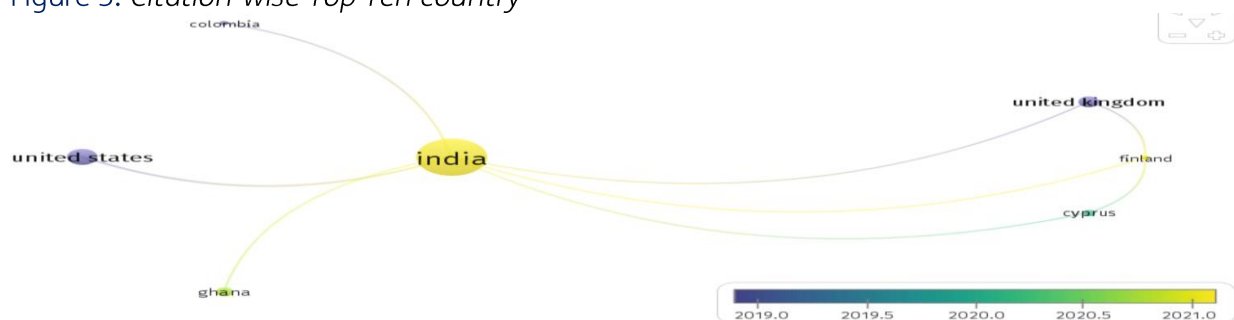
Table 1 and Figure 5 highlight the leading nations in terms of citation metrics concerning the research in financial literacy. India ranked first with 23 documents and 871 citations: while this shows a great contribution, at the same time, this would mean that the research from this country had high engagement. Indonesia had the highest number of documents—25—but only 24 citations, suggesting its high research output had not been of much impact. The United States also presents a strong presence with 7 documents and 133 citations, reflecting a considerable influence on financial literacy research. Other countries, like the United Kingdom with 4 documents and 52 citations, and Ghana with 3 documents and 77 citations, show some good contributions with moderately-sized citation counts, indicating that their research was well-regarded within the academic community.

Table 2: Citation-wise Top Ten country

| Id | Country | Documents | Citations | Total Link Strength |
|----|----------------|-----------|-----------|---------------------|
| 8 | Cyprus | 2 | 43 | 1 |
| 12 | Ghana | 3 | 77 | 1 |
| 13 | India | 23 | 871 | 5 |
| 14 | Indonesia | 25 | 24 | 1 |
| 18 | Malaysia | 3 | 16 | 2 |
| 19 | Netherlands | 1 | 23 | 0 |
| 23 | Portugal | 2 | 13 | 0 |
| 29 | Turkey | 3 | 22 | 1 |
| 32 | United Kingdom | 4 | 52 | 1 |
| 33 | United States | 7 | 133 | 2 |

Source: Dimensions.ai, 18 May 2024

Figure 5: Citation-wise Top Ten country



Source: Dimensions.ai, 18 May 2024

Cyprus, Malaysia, the Netherlands, Portugal, and Turkey were represented by fewer documents and citations, indicating a smaller but still quite significant influence

on financial literacy research. For instance, Cyprus had 2 documents with 43 citations and a total link strength of 1, while Malaysia had 3 documents with 16 citations but a

slightly higher link strength of 2. The total link strength, representing the collaboration and networking capacity in research differed across these countries, with India having the highest at 5, indicative of higher academic networking and collaboration. In total, the table highlights the extent of influence and collaboration in financial literacy research across different countries, with India, the United States, and the United Kingdom topping the lists in terms of citations and impact.

3.6 CITATION-WISE TOP TEN ORGANIZATIONS

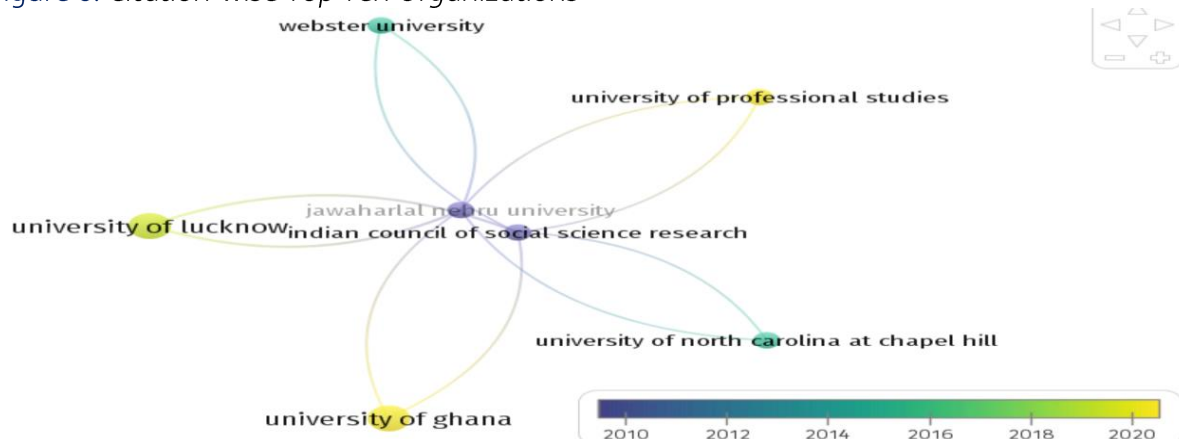
The table lists the top ten organizations based on citation metrics in financial literacy research. The ICSSR and JNU stand out with a remarkable 660 citations each for a single document, reflecting the extraordinary impact of their research contributions. Both institutions also have the highest total link strength of 6, indicating robust academic networking and collaboration, enhancing their research visibility and influence.

Table 3: Citation-wise Top Ten Organizations

| ID | Organization | Documents | Citations | Total Link Strength |
|-----|---|-----------|-----------|---------------------|
| 22 | Bill & Melinda Gates Foundation | 1 | 85 | 0 |
| 34 | Cyprus University of Technology | 2 | 43 | 0 |
| 48 | Durham University | 1 | 41 | 0 |
| 51 | Economic Analysis and Research Department, Bank of Greece, 21, El. Venizelos Ave, 10250, Athens, Greece | 1 | 41 | 0 |
| 75 | Indian Council of Social Science Research | 1 | 660 | 6 |
| 91 | Jawaharlal Nehru University | 1 | 660 | 6 |
| 160 | University of Ghana | 2 | 61 | 2 |
| 167 | University of Lucknow | 2 | 139 | 4 |
| 171 | University of North Carolina At Chapel Hill | 1 | 26 | 2 |
| 173 | University of Professional Studies | 1 | 45 | 2 |
| 183 | Webster University | 1 | 26 | 2 |

Source: Dimensions.ai, 18 May 2024

Figure 6: Citation-wise Top Ten Organizations



Source: Dimensions.ai, 18 May 2024

The Bill & Melinda Gates Foundation has one document with 85 citations, showing significant impact despite a total link strength of 0, which suggests that the

influence was derived more from the document's content rather than collaborative efforts. Similarly, the Cyprus University of Technology had two

of publications with at least one citation decreased dramatically in 2023 and 2024, indicating that a smaller fraction of recent publications is making a notable impact.

Country-wise, India led with the most significant contributions and highest citations, followed by the United States and the United Kingdom. In terms of organizations, Indian institutions such as the Indian Council of Social Science Research and Jawaharlal Nehru University made the most impactful contributions, evidenced by high citation counts and strong academic networking.

5. CONCLUSION

Financial literacy plays a crucial role in enhancing access to banking services by increasing awareness of available financial services. The data suggest a growing interest and investment in financial literacy research within the banking sector, with substantial contributions from certain countries and institutions. However, despite an overall increase in publications and citations, the recent decline in the percentage of cited publications highlights potential issues with the quality or relevance of newer research. The high impact of contributions from India, particularly from institutions like ICSSR and JNU, underscores their pivotal role in advancing financial literacy.

6. RECOMMENDATIONS

Enhance Research Quality: Institutions and researchers should focus on producing high-quality, impactful research rather than increasing the quantity of publications. Emphasizing rigorous methodologies and addressing current financial literacy challenges can improve citation rates.

Encourage Collaboration: Increasing academic networking and collaboration can enhance the visibility and impact of research. Institutions with higher link strengths, such as ICSSR and JNU, serve as examples of how effective collaboration can lead to significant contributions.

Monitor Trends and Shifts: Continual monitoring of publication and citation

trends can help identify shifts in research focus and emerging areas of interest. This can guide future research efforts to remain relevant and impactful.

Support Underrepresented Regions:

Efforts should be made to support and encourage financial literacy research in regions with lower contributions and citations. This can include funding, collaborative projects, and capacity-building initiatives.

CONFLICT OF INTEREST: There is no conflict of interest.

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