

Mapping the Research Landscape of Financial Literacy Education: A Bibliometric Analysis

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ABSTRACT

Financial literacy education has attracted considerable global interest as an essential mechanism for improving individual financial well-being, decision-making processes, and economic inclusion. Despite these increasing initiatives, numerous individuals, especially the youth and students, still exhibit a deficiency in essential financial knowledge and skills, resulting in suboptimal financial behaviors and persistent economic vulnerabilities. The objective of this study is to delineate the research landscape pertaining to financial literacy education through a bibliometric analysis, thereby presenting a systematic overview of publication trends, principal contributors, thematic areas of focus, and geographical dispersion. The central issue being addressed is the disjointed comprehension of the evolution of the field and the direction future research ought to take. Utilizing data obtained from the Scopus database spanning from 2005 to 2025, this study employed bibliometric methodologies facilitated by VOSviewer software to examine publication output, citation trends, co-authorship networks, and keyword co-occurrence patterns. The findings report a significant increase in academic production over the last decade, with the United States, Indonesia, and India emerging as some of the most productive contributors. Key authors, including Lusardi and Fernandes, have had a significant impact on the field, while emerging themes include financial capability, inclusion, and education for young people. The study also highlights methodological shifts towards quantitative modeling and interdisciplinary expansion. This study provides important implications for educators, policymakers, and researchers seeking to improve the efficacy and applicability of financial literacy education globally.

Keywords: Financial Literacy Education, Bibliometric Analysis, Financial Behavior, Financial Capability, Research Trends

INTRODUCTION

Financial literacy education is being recognized for its potential contributions to individual financial wellness and economic security. Literacy involves knowledge, skills, attitudes, and behaviors that will enable people to make choices that are fully informed regarding their own financial decisions, and increases in consumer and commercial debt practices will require an increased level of financial literacy (Tian & Wang, 2022; Matey et al., 2021; Lakshmi & Bharathi, 2023). Financial literacy has become increasingly important as understanding the variety of financial products and services becomes more complex, as the expectation shifts towards individuals being accountable for their financial choices, and as the need for economic resilience to account for increasing uncertainty in international finance increases (Tian & Wang, 2022; Matey et al., 2021; Lakshmi & Bharathi, 2023). Financial literacy involves improving how individuals engage in personal financial management, make investments, and make preparations for retirement, while navigating the complex world of financial products and marketing (Matey et al., 2021; Lakshmi & Bharathi, 2023; LeBaron-Black et al., 2025).

Despite being important, levels of financial literacy across the globe remain dangerously low. Specifically, many individuals, young or old and particularly students, do not possess sufficient financial literacy knowledge or competence to manage their finances effectively (Tomášková et al., 2011; Yoshino et al., 2016; Brovchak et al., 2019). As a result, there has been increasing discussion around requiring all schools to conduct financial literacy programs to effectively teach young people financial literacy competencies (Gudjonsson et al., 2022; Amagir et al., 2018; Heath, 2016). Empirical studies have demonstrated that financial literacy programs that include experiential learning, are age appropriate, and have some curriculum components or characteristics can effectively increase financial literacy knowledge and financial behaviors (Amagir et al., 2018; Koh, 2016). Initiatives utilizing effective and interactive pedagogy approaches, using gamification and real-world simulations, could be a very successful and fun way of increasing financial knowledge and acquired competencies (Grobbelaar & Alsemgeest, 2024). Initiatives aimed at specific groups of people, in particular, youths and a low-income group, tend to yield the best results (Partha Sarathi & Kalyan, 2025).

While programs did differ in success, some interventions were evidently successful in changing knowledge and attitudes, however, had little effect on actual financial behaviours (Álvarez-Franco et al., 2017; Amagir et al., 2018). Delivery of financial literacy education also faces challenges; for example, there are differences in teacher competency, lack of designated curriculum, lack of resources, and widely different learner needs (Barrot et al., 2024; O'Neill & Hensley, 2016). Additionally, cultural and contextual factors will also impact the success of financial literacy education programs, highlighting the need to tailor financial literacy education programs that meet the needs of a community (Brimble & Blue, 2013; Dunn, 2023), thus, meeting and overcoming these challenges will require the cooperation of policy-makers, educators, and financial institutions to develop and implement relevant strategies for financial literacy education (Barrot et al., 2024; O'Neill & Hensley, 2016). Further, accurate measures of financial literacy are vital in assessing the success of programs; however, the lack of consensus and the variances in evaluations have meant that research shows varying results (Huston, 2010; Yamang & Roy, 2022). Standardization in measures and methods can help promote more reliable data with which to work with and can support developing effective financial literacy programs (Huston, 2010; Yamang & Roy, 2022).

The theme of financial literacy has been associated with positive economic outcomes, such as improved decision making, savings rates, and exposure to financial crime (Brovchak et al., 2019). Further, it is a means to promote financial inclusion and ultimately enhances economic growth through the enabling of individuals to become more engaged in the financial system (Lakshmi & Bharathi, 2023). That stated, there is debate around the longer-term effectiveness of financial literacy education in sustaining these stated benefits; indeed, some studies have challenged support for its long-term effect (Álvarez-Franco et al., 2017). Policy recommendations suggest that financial literacy education is included in national curricula, meanwhile there is also investment in ongoing professional development for educators (Solomon et al., 2018; Yoshino et al., 2016). Furthermore, there currently is a critical need for standardised tools to measure financial literacy and the impact of education (Huston, 2010; Yamang & Roy, 2022).. In delivering a whole approach through policy emphasis, curriculum strengthening, and educator training, countries can promote financial literacy and improve economic stability and engagement (Solomon et al., 2018; Yoshino et al., 2016).

Given the growing body of literature on financial literacy education, with inconsistent findings and varied methods of delivery, we feel the need to understand the broader landscape of this area. Bibliometric studies can identify and provide a snapshot of predominant trends, influential papers, and areas in need of further research. These provide important information when developing programs, standardizing evaluation measures, or shape policy. In support of this purpose, bibliometric analysis can offer quantitative and qualitative methods for researchers and practitioners to understand a specific area, track its progression, significance, and intellectual structure, and locate even less explored and fruitful domains (Abdullah et al., 2023). Bibliometric studies help researchers understand the changing nature of topics and areas within the field of interest through their metrics (e.g., publication records, citation counts, and keyword co-occurrence) to assess how topics and methods in the area of financial literacy education research evolve (Donthu et al., 2021; Zupic & Čater, 2015). Therefore, this study used a bibliometric approach to address commonality, gaps and areas for direction with existing financial literacy education research, by identifying important trends in the literature overall and identifying important and prolific authors. By identifying streams of research and outlining the important

works within them, it creates a roadmap for deeper scrutiny that allows researchers to address knowledge gaps, and an area to strengthen the conceptual and theoretical roots of financial literacy education (Abdullah & Sofyan, 2023; Lusardi & Tufano, 2015). In addition, through citation and coauthorship network analyses, this study identifies prominent individuals who have contributed to the intellectual debates and collaborations in financial literacy education research (Merigó et al., 2020). Finally, by identifying highly cited publications, this bibliometric study provides insights into the historical context and development of priorities in financial literacy education, providing a sound basis for further research and practice in this important area of education. The research questions driving the study and the justification for each question are summarized in Table 1.

Table 1: Research Questions

No		Research Question	Motivation
1.	RQ1	What are the patterns and trends in the growth of financial literacy education over the last decade?	To gain deeper insight into the current landscape and historical evolution of research in financial literacy education.
2.	RQ2	Who are the most influential authors, and what are the key publications in financial literacy education research?	To identify the influential scholars and key contributions that have significantly shaped the literature in financial literacy education.
3.	RQ3	What are the most productive institutions in conducting financial literacy education research?	To highlight the leading institutions in financial literacy education research and their contributions to advancing the field.
4.	RQ4	Which countries are the top 10 contributors to research publications on financial literacy education?	To identify the geographical distribution of scholarly contributions in financial literacy education
5.	RQ5	What are the main research themes and potential future directions in financial literacy education?	To critically synthesize the predominant themes in existing literature and identify underexplored areas that merit further scholarly investigation to advance the discourse on financial literacy education

METHODOLOGY

Bibliometrics is the systematic method of data gathering, organizing, and analyzing of bibliographic-based data material taken out of academically published materials (Verbeek et al., 2002). Besides the simple descriptive metrics, including the identification of the sources of publication, publication years, and key authors (Wu & Wu, 2017), the bibliometric analysis comprises more sophisticated techniques, like document co-citation analysis. According to the foregoing, to be accurate and reliable, the process must be in the form of a modus operandi that allows us to select appropriate keywords, conduct a systematic literature review, and subsequent sifting in the data set (Fahimnia et al., 2015). The selected high-impact journals, drawn in the current case from the Clarivate Analytics Journal Citation Reports (JCR), were duly considered to be products of qualitative journal settings, as is commonly known (Meier, 2011). This limited the analysis, therefore, exclusively to the peer-leading journals to better represent the theoretical changes in the sphere of research. The Scopus database belonging to the Elsevier was utilized due to its broad scope as required in collecting data. To sustain quality in study, it was not possible to include conference proceedings and book chapters in identification of articles, and therefore, it only included peer-reviewed, journal articles (Z. Liu et al., 2015).

Data Search Strategy

Study employed a screening sequence to determine the search terms for article retrieval. Study was initiated by querying Scopus database with online TITLE (("financial" OR "finance" OR "monetary") AND ("literacy" OR "knowledge" OR "awareness" OR "capability") AND ("education" OR "learning" OR "study")) AND PUBYEAR > 2004 AND PUBYEAR < 2026 AND (LIMIT-TO (PUBSTAGE , "final")) AND (LIMIT-TO (SUBJAREA , "SOCI") OR LIMIT-TO (SUBJAREA , "ECON") OR LIMIT-TO (SUBJAREA , "BUSI") OR LIMIT-TO (SUBJAREA , "MULT")) AND (LIMIT-TO (DOCTYPE , "ar")) AND (

LIMIT-TO (LANGUAGE , "English")) thereby assembling 704 articles. Afterwards, the search focused on publications in English were considered, resulting in 687 documents, while non-English works were excluded. The timeline was limited to studies published between 2005 and 2025, narrowing the dataset to 677 relevant documents. Further refinement focused on journal articles, excluding conference papers, books, and reviews, which reduced the number to 477. Finally, the subject area was restricted to disciplines closely aligned with financial literacy, namely Social Sciences, Economics, Finance, Business, Management, and Multidisciplinary studies, yielding a final dataset of 407 documents. This rigorous selection process ensured that the analyzed literature was both high-quality and directly relevant to the research objectives.

Table 2: Search String

Database	Search String	Number of documents
Scopus	TITLE (("financial" OR "finance" OR "monetary") AND ("literacy" OR "knowledge" OR "awareness" OR "capability") AND ("education" OR "learning" OR "study"))	704

Table 3: The Selection Criterion in Data Searching

Criterion	Inclusion	Exclusion	Number of documents
Language	English	Non-English	687
Timeline	2005-2025	< 2005	677
Literature type	Journal (Article)	Conference, Book, Review	477
Subject area	Social Sciences, Economics, Econometrics and Finance, Business, Management and Accounting and Multidisciplinary	PsychologyComputer Science, Arts and Humanities, Medicine, Environmental Science, Decision Sciences, Engineering, Mathematics, Energy, Agricultural and Biological Sciences, Health Professions, Biochemistry, Genetics and Molecular Biology, Neuroscience and Materials Science	407
Publication Stage	Final	In Press	403

Data Analysis

The dataset included publishing year, title, author names, journal, citation count, and keywords. Data was extracted from the Scopus database in PlainText format from 2005 to July 2025. The data was analyzed using VOSviewer software (version 1.6.15) to visualize maps and clustering based on bibliometric relations, employing VOSviewer as an alternative to traditional Multidimensional Scaling (MDS) (Van Eck & Waltman, 2010) with the same orientation of spatially positioning elements/items in a low-dimensional space reflecting their levels of similarity and relatedness (Appio et al., 2014). However, unlike MDS, which utilizes similarity metrics (e.g., Jaccard index or cosine similarity), VOSviewer follows a superior normalization process of its co-occurrence data by employing what is known as association strength (AS_{ij}) (Van Eck & Waltman, 2007) , and is calculated the following way:

$$AS_{ij} = \frac{C_{ij}}{w_i w_j}$$

which is defined as "proportional to the ratio between the observed number of co-occurrences of items i and j and the expected number of such co-occurrences, assuming statistical independence between them" (Van Eck & Waltman, 2007). This metric enables the software to map items by minimizing the weighted sum of squared distances between all pairs, effectively visualizing their relationships. To further enhance clustering accuracy, the LinLog/modularity normalization technique was applied, as recommended by (Appio et al., 2016).

By employing VOSviewer’s visualization capabilities, the research examined patterns and links in the data, based on mathematically related associations. Thus, the use of bibliometric analyses such as keyword co-occurrence, citation analysis, and co-citation analysis. Keyword co-occurrence analysis is useful to chart the progression of a research landscape by identifying terms that have been consistently linked together over a period of time (Zhao, 2017). Citation analysis provides insight into the major streams of research, methodological frameworks, and historical development of an area (Allahverdiyev & Yucesoy, 2017). Document co-citation analysis - is one of the most widely utilized forms of bibliometric analysis was used to establish the structural framework of the literature based on network theory (Appio et al., 2016; Fahimnia et al., 2015; Z. Liu et al., 2015). Each of these analyses provides a broad understanding of the intellectual landscape of financial literacy education.

RESULTS AND ANALYSIS

Publication Growth Trends

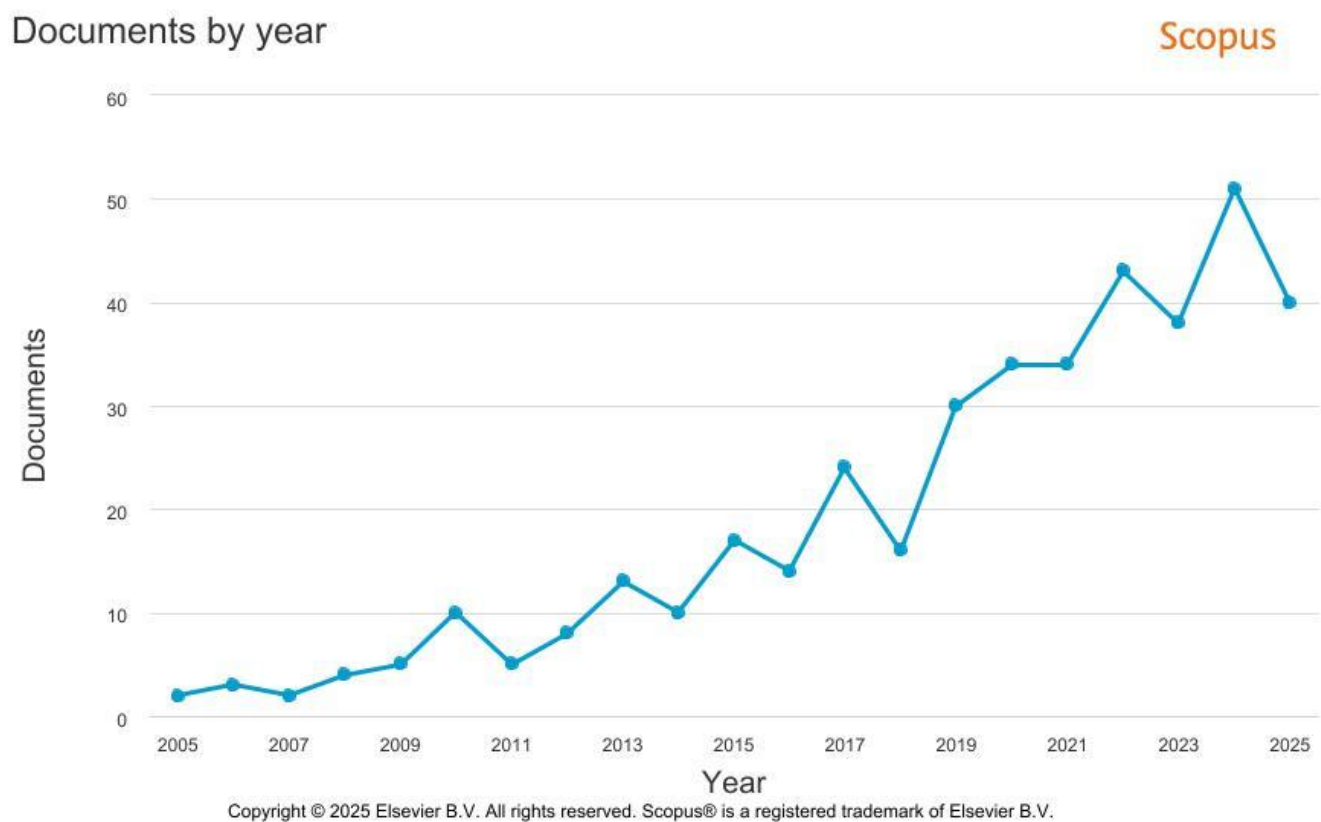


Figure 1: Trend Of Research In Financial Literacy Education By Year

Source: Scopus Database

Table 4: Trend Of Research In Financial Literacy Education By Year

Year	Total Publication	Percentage %
2025	40	9.9
2024	51	12.7
2023	38	9.4
2022	43	10.7
2021	34	8.4
2020	34	8.4
2019	30	7.4

2018	16	4
2017	24	6
2016	14	3.5
2015	17	4.2
2014	10	2.5
2013	13	3.2
2012	8	2
2011	5	1.2
2010	10	2.5
2009	5	1.2
2008	4	1
2007	2	0.5
2006	3	0.7
2005	2	0.5

Source: Scopus Database

An examination of the availability of sources on financial literacy and education published between 2005 and 2025 shows an increase in research output suggesting an increase in scholarly awareness and societal concern. In the earlier years of 2005-2012, there were relatively fewer sources, and the annual volume numbered from 2 to 13 as weekly outputs, or less than 4% of the annual sources in total. This indicates financial literacy education was a developing area, and new scholarly source outputs were limited. However, as of 2013, there is a steady increase in research producing scholarly sources with a marked increase in later years, in particular, the years 2018 – 2025. For instance, the highest rates of output reported by the year 2024 were 12.7% followed by 2025 9.9% and 2022 10.7%. This escalation points to an increased recognition for the importance of financial literacy education possibly spurred on through worldwide economic challenges, policy responses, and addressing financial inclusion.

The data indicate important milestones in the evolution of the discipline. The years 2018 and 2019 are particularly significant due to the drastic spikes in annual publication outputs rising from 16 in 2018 to 30 in 2019, indicating a positive shift in academic engagement. The peak achieved in 2024 also indicates the maturing and growing field, very likely spurred by interdisciplinary initiatives within finance, technological advancements associated with finance, the incorporation of finance literacy in education systems, and many other important factors. That said, the slight drop in publication output in 2023 compared to 2022, indicates possible fluctuation in researchers' agendas, or consideration with regard to ongoing stimulus, including the affect of the COVID-19 pandemic globally. From a practical perspective, the data indicates a dynamic and evolving research space, which also indicates that financial literacy education is increasingly being recognized as a legitimate discipline in the 21st century, and armors everyday citizens with the knowledge they need to deal with current financial issues on a global basis.

Most Prominent Authors

Table 5: The Most Influential Authors

No	Authors	Title	Source title	Cited by
1	Fernandes et al., (2014)	Financial literacy, financial education, and downstream financial behaviors	Management Science	1186
2	Lusardi & Mitchelli, (2007)	Financial literacy and retirement preparedness: Evidence and implications for financial education	Business Economics	828

3	Lusardi, (2019)	Financial literacy and the need for financial education: evidence and implications	Swiss Journal of Economics and Statistics	495
4	Mandell & Klein, (2009)	The impact of financial literacy education on subsequent financial behavior	Journal of Financial Counseling and Planning	368
5	Xiao & Porto, (2017)	Financial education and financial satisfaction: Financial literacy, behavior, and capability as mediators	International Journal of Bank Marketing	242
6	Kaiser & Menkhoff, (2017)	Does financial education impact financial literacy and financial behavior, and if so, when?	World Bank Economic Review	240
7	Kaiser et al., (2022)	Financial education affects financial knowledge and downstream behaviors	Journal of Financial Economics	220
8	Xiao & O'Neill, (2016)	Consumer financial education and financial capability	International Journal of Consumer Studies	206
9	(Walstad et al., (2010)	The effects of financial education on the financial knowledge of high school students	Journal of Consumer Affairs	163
10	(Pavithra & Ganesan, (2016)	A study on awareness and impact of micro-financial schemes	International Journal of Applied Business and Economic Research	136

Source: Scopus Database

The bibliometric mapping shows there is a strong and expanding literature base around financial literacy education and while some scholars and studies dominate and provide the foundation of and pathway forward for the field. Fernandes et al (2014), the most cited paper provided a critical analysis of the association between financial literacy, education and subsequent financial behaviors and it had a methodological critique on measuring impact and argued for the educational intervention to be more tailored or targeted. Lusardi seems to be a central author as they also had two most cited publications one with Mitchell in 2007 concerning retirement readiness, and another in 2019 endorsing the demand for financial education across the world. These influential publications determined that financial knowledge and literacy is relevant for long term decision making, and financial literacy can have this impact for individuals when it comes to retirement planning, and to assist for economic resilience.

Several other key authors, including Mandell & Klein (2009) and Kaiser et al (2022), conduct investigations that generally contained direct behaviour changes associated with the financial education interventions. Subsequently, Xiao & Porto (2017) focuses on, but does not limit his operationalization of financial literacy education to the influence of financial satisfaction and financial ability and illustrates the importance of establishing contextual empowerment, suggesting that literacy is, in fact, insufficient for making decisions, without appropriate contextual empowerment. The most recent research by Kaiser et al (2022) builds on these previous studies and provides renewed empirical support for education behavior change relationship by positioning financial knowledge as a mediator. Several other studies that also provide supporting evidence for some common population groups in education about financial literacy include Kaiser et al (2022) and Pavithra & Ganesan (2016), including financial literacy education for high school students and micro-finance recipients, demonstrating a progression toward broadening the audience with financial literacy education and subsequently broadening the policy implications as well. Adding up all of these forms of academic research will provide a comprehensive foundation to discuss trends, implications, and future directions in financial literacy education research.

Most Productive Institutions

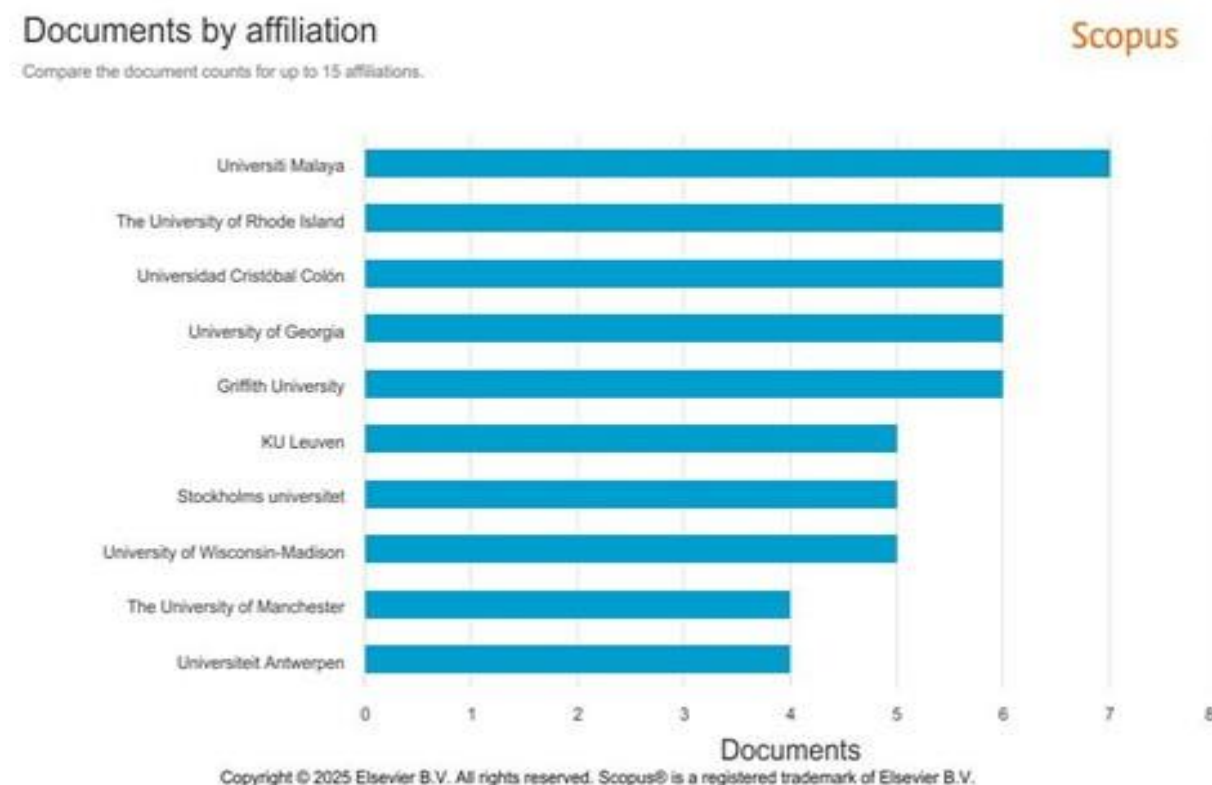


Figure 2: The Most Productive Institutions

Source: Scopus Database

Table 6: The Most Productive Institutions

No	Institutions	No of Document	Percentage (%)
1.	Universiti Malaya	7	2.2
2.	The University of Rhode Island	6	1.9
3.	Universidad Cristóbal Colón	6	1.9
4.	University of Georgia	6	1.9
5.	Griffith University	6	1.9
6.	KU Leuven	5	1.5
7.	Stockholms universitet	5	1.5
8.	University of Wisconsin-Madison	5	1.5
9.	The University of Manchester	4	1.2
10.	Others	273	84.5

Source: Scopus Database

Table 6 shows the institutions that have produced the most literature on financial literacy education, based on a count of the publications and a percentage of the total output in the dataset. The institution with the most publications was Universiti Malaya 7 publications (2.2%). This suggests evident scholarly engagement related to financial literacy education and indicates that the scholarly interest and scholarly work related to financial literacy is growing in Malaysia and generally Southeast Asia.

Several other institutions produced a meaningful contribution to the field all with 6 documents (1.9%), such as, The University of Rhode Island, Universidad Cristóbal Colón, University of Georgia, and Griffith

University. This indicates a highly distributed research landscape, with evidence of solid scholarship emanating from North America, Latin America and Australia. KU Leuven, Stockholms universitet, and the University of Wisconsin-Madison produced 5 documents (1.5%) and the University of Manchester produced 4 documents (1.2%). Generally, the evidence presented in Table 6 confirms a distributed but connected global community of researchers who are committed to advancing scholarly output related to financial literacy education.

Top 10 Active Countries

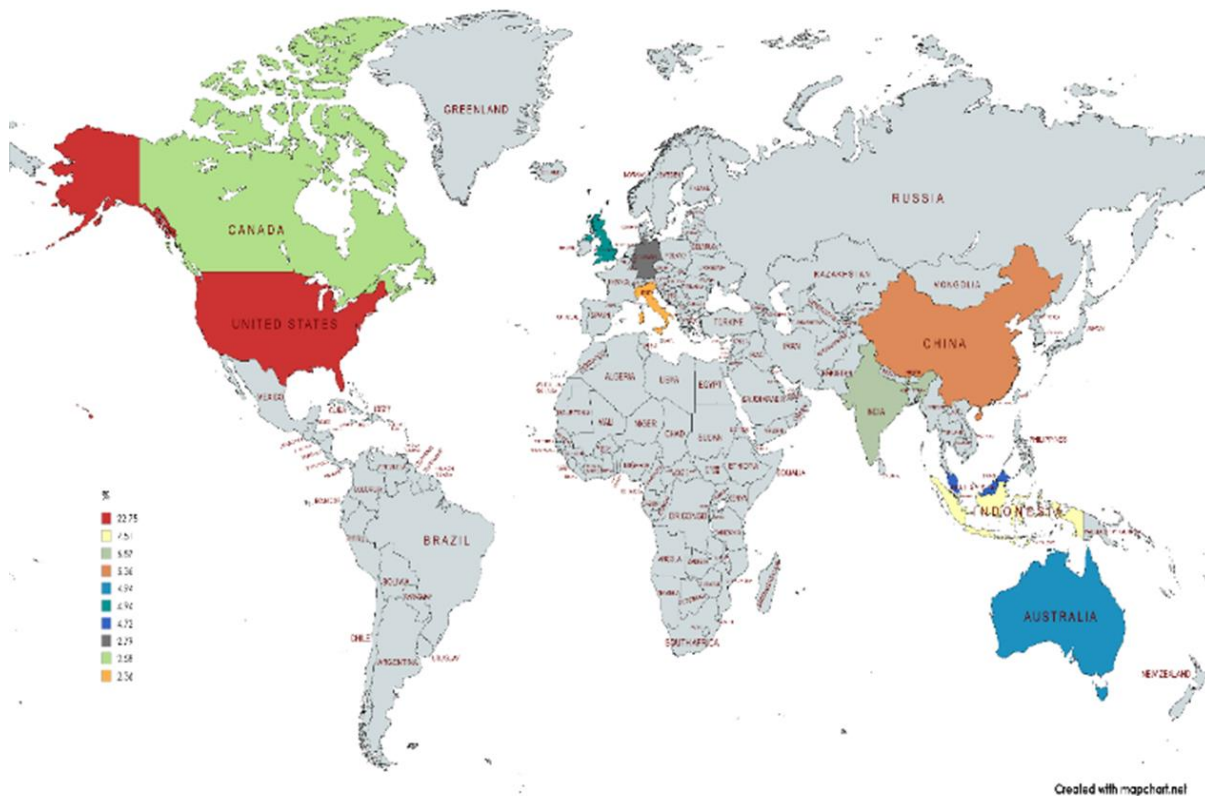


Figure 3: The Ten Leading Countries

Source: Scopus Database And Mapchart

Table 7: The Ten Leading Countries

No	Country	No of Document	Percentage (%)
1.	United States	106	22.75
2.	Indonesia	35	7.51
3.	India	32	6.87
4.	China	25	5.36
5.	Australia	23	4.94
6.	United Kingdom	23	4.94
7.	Malaysia	22	4.72
8.	Germany	13	2.79
9.	Canada	12	2.58
10.	Italy	11	2.36
11.	Others	164	35.19

Source: Scopus Database

The table displays the 10 prolific most countries when it comes to publishing about financial literacy education research, regarding the number of the documents published and percentage of the total publishing output. The US leads with a large percentage of documents with 106 documents representing 22.75 percent of the total number of documents. The trend has made it a leader in advancing financial literacy in the country both academically and policy-wise particularly on the issue of Retirement preparedness, behavioral economics and reform of education.

The rise of new economies such as Indonesia (7.51 percent), India (6.87 percent), and China (5.36 percent) also signifies a shift towards building financial literacy in the regions as the economy develops at a tremendous speed and digital financial inclusion becomes a major phenomenon. The developed countries including Australia and United Kingdom contribute 4.94 and 4.94 respectively as compared to 4.72 by Malaysia when it comes to the contribution of academic involvement in the aspects of financial literacy, emphasizing the growth in the academic activities in the southeast Asia region. Other contributors of note are Germany, Canada, and Italy who have contributed between 2 and 3 percent of the publications. Collectively, the statistics represent an interdisciplinary and international concern with financial literacy education that is being fuelled by developed and developing economies in an attempt to improve on the financial decision making skills of their citizens.

Major Themes and Potential Future Directions

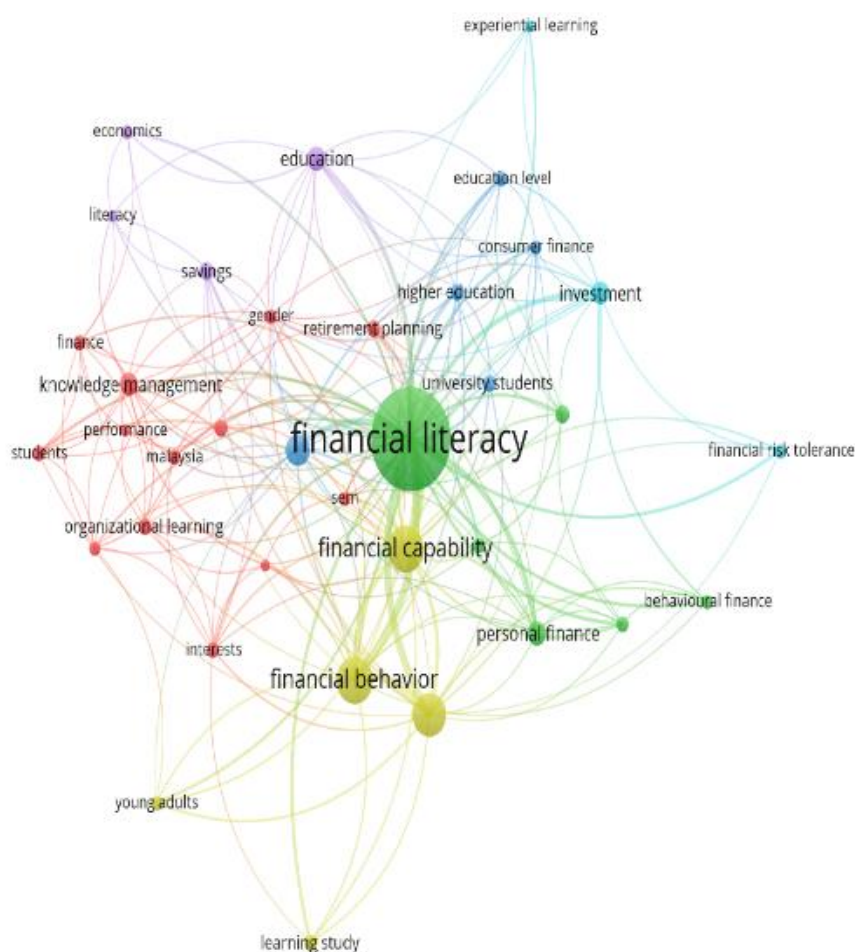


Figure 4: Keyword Co-Occurrence Map

Source: Scopus Database And Vosviewer

Table 8: Keyword Co-Occurrence List

No	Keyword	Occurrences	Total Link Strength
1	Financial Literacy	266	319
2	Financial Behavior	59	111
3	Financial Capability	60	111
4	Financial Knowledge	50	99
5	Financial Inclusion	27	46
6	Investment	15	34
7	Education	16	30
8	Personal Finance	17	28
9	Knowledge Management	15	24
10	Higher Education	8	23
11	University Students	8	20
12	Gender	6	19
13	Education Level	7	18
14	Savings	10	18
15	Generation Z	7	17
16	Retirement Planning	8	17
17	Consumer Finance	6	16
18	Interests	7	16
19	Sustainable Development	10	16
20	Learning Study	8	15
21	Malaysia	7	15
22	Students	7	15
23	Young Adults	6	14
24	Behavioural Finance	6	13
25	Finance	7	13
26	Youth	6	13
27	Organizational Learning	8	12
28	Entrepreneurial Intention	7	11
29	Financial Risk Tolerance	6	11
30	Sem	6	11
31	Economics	6	10
32	Literacy	5	9
33	Structural Equation Modelling	5	9
34	Experiential Learning	5	7
35	Islamic Financial Literacy	9	6
36	Performance	5	6

Source: Scopus Database

Table 8 offers a specific analysis of keywords that allows defining key research topics and possible future areas of study of the education of financial literacy. The single most utilized keyword is the term financial literacy pointing out that it is very important in the literature. Surrounding this central concept are a few related terms such as financial capability, financial behavior and financial knowledge. The keywords denote the fact that much of the literature is not only focused on defining financial literacy but also provides information on

how the concepts affect behavior and ability especially in achievement of sound financial choices and financial wellness in the long term.

The other leading themes reveal the general interest in the topics of education and youth, where the education of the financial literacy constantly is concentrated in the school environment. Other terms, such as education, higher education, university students, students and generation Z refer to an ongoing scholarly concern with the idea of targeting young adults enhancing financial literacy curriculum in formal education curriculum. Experiential learning, organizational learning and learning study, are evidence of a growing pedagogical orientation and learner focus. Similarly, the frequency of the terms personal finance and investment shows a practical engagement in financial decision making in life, as sub-theme, we have retirement planning as it shows a life-long interest in all finance aspect.

Areas of future research can also be deduced based on those keywords that are less cited or more recent but have a strategic impact. The introduction of the three concepts of the study, namely, the Islamic financial literacy, upholding sustainable development, and entrepreneurial intention, heralds an invasion of the financial literacy educative provision into the domain of the culturally peculiar and sustainability-proclaimed, as well as the entrepreneurship-prospected directions. These also mean more interdisciplinary work and the contemplation over the broader social and ethical impacts of financial literacy. Moreover, the methodological term like structural equation modelling (SEM) indicates that higher levels of assumptions prototypes of analysis models are now gaining prominence in approval of multidimensional association between variables in financial literacy research.

Overall, the co-occurrence trends in the current research can be exemplified by the fact that the field is not only maturing but also diversifying. These are the general overall research topics and they fall under the umbrellas of literacy development, behavior outcomes, youth participation, and intervention based on education. Simultaneously, the data depicts a transition to the new frontiers which imply technology, morality, and cultural dimensions. Such under-researched topics as digital financial literacy, gendered financial needs, and Islamic financial education are those that, in the future, should be further researched in a more rigorous, interdisciplinary way to promote the further theoretical and practical contributions in the field.

DISCUSSION AND CONCLUSION

The proposed study presents an extensive bibliometric mapping of the field of research in financial literacy education through answering five research questions. These results lead to the fact that there is a serious upward trend in the volume of research in 2010-2025, but an increased velocity in the recent five years, which indicates the rising scholarly and social interest in financial literacy education. The publication trend indicates the growing awareness of the contribution that financial literacy makes to strengthening economic resilience and the finances of individuals (Chidiogo Uzoamaka Akpuokwe et al., 2024; Sun et al., 2024; Zhang et al., 2024). Along these lines, it is worth mentioning that the increased levels of publications during 2022-2025 correlate with the global economic upheavals and the spread of digital financial services, which fully justifies the necessity of empowering people with the necessary financial literacy (Ferilli et al., 2024; Ravikumar et al., 2022; Uthailiang & Kiattisin, 2023).

A discursive analysis of the literatures on financial literacy demonstrates that a number of key scholars have dominated the issues and their works have basically defined the discourse. Of these authors, Lusardi (2019), Lusardi & Mitchell (2007), Fernandes et al. (2014), Xiao & O'Neill (2016) and Xiao & Porto (2017) have especially prominent positions. Their architected publications bring the behavioural consequences of financial education to the fore and support applications of contextualised empirical based interventions. Later research, particularly the ones by Marinov (2023), Song et al. (2023) and Zulaihati et al. (2020), also examine the implications of financial literacy on the downstream financial behaviour. Such studies provide new empirical data concerning programme efficiency and response to population which supports the transformation in the field of discipline away from theoretical research and towards supportive evidence and in connection with RQ2.

Institutional and geographic scans describe an asymmetric but heterogeneous research environment. The United States, in particular, produces most the scholarship generated (passing over 22 percent of the total literatures) and emergent economies like Indonesia, India, and Malaysia emerge as significant sources. Such distribution is representative of the policy-driven research in the developed world and the growing interest of developing countries in the academic endeavor trying to reduce financial exclusion and illiteracy (Collin, 2011; Williams & Oumlil, 2015). The University of Rhode Island and Universiti Malaya are big academia production centres and are indicative of how academia expertise has spread out of the traditional centres in the West. The combination of these trends with the data related to the demographical responsiveness constitutes the evidence that strengthens the need in intensified cross-national collaboration in ensuring that financial literacy education is more comprehensive, inclusive, and comparative understanding of financial literacy education around the world as defined in RQ3 and RQ4.

Co-occurrence of keywords in the financial literacy literature provides a structured picture of topic development in the financial literacy study literature (RQ5). The financial literacy itself is closely overlapping with the key constructs financial capability, behavior, and knowledge, thus, confirming their interdependence both on the theoretical level and in practice. Moreover, newer unfound aspects like entrepreneurship intention, Islamic financial literacy, and sustainable development also portray the interdisciplinary direction of the discipline, as structural equation modelling is prevalent that points to a newer degree of maturity in the method influencing research. This major shift to mention youth-related terminologies (university students, generation Z) reflects the new approach to put an earlier focus in the measure of youth early-intervention which is consistent with the current demands of age-related and experiential learning in national curricula.

Even though this survey outlines the current aspects of the field, there are a number of obvious gaps. Despite the increasing number of research, the measurement of financial literacy is an issue of standardization, the long-term behavioral impacts of education programmes are insufficiently studied, and the cultural flexibility of such content material is little discussed (Harcourt-Cooke et al., 2022; S. Liu et al., 2021; Xu, 2018). Scholars in the future are encouraged to investigate less studied territories, to combine the scope of financial literacy with discussions of digital finance and sustainability, to make the choice of mixed methods and longitudinal designs, and increase inter-institutional cooperation mode as ways to expand the horizons of theories and deepen the level of empirical research. At the same time, various theoretical perspectives also should be used in order to promote more inclusive scholarship. Our research on financial literacy would become more effective in terms of practice and theoretically solid enough to make financially competent individuals in every corner of the world.

LIST OF REFERENCES

1. Abdullah, K. H., Roslan, M. F., Ishak, N. S., Ilias, M., & Dani, R. (2023). Unearthing hidden research opportunities through bibliometric analysis: a review. *Asian Journal of Research in Education and Social Sciences*, 5(1), 251–262.
2. Abdullah, K. H., & Sofyan, D. (2023). Machine learning in safety and health research: a scientometric analysis. *International Journal of Information Science and Management (IJISM)*, 21(1), 17–37.
3. Allahverdiyev, M., & Yucesoy, Y. (2017). Development stages and types of glass art from past to present. *Ponte*, 73(4), 224–238.
4. Álvarez-Franco, P. B., Muñoz-Murillo, M., & Restrepo-Tobón, D. A. (2017). Challenges in assessing the effectiveness of financial education programs: The Colombian case. *Cuadernos de Administracion*, 30(54), 155–180. <https://doi.org/10.11144/javeriana.cao30-54.caef>
5. Amagir, A., Groot, W., Maassen van den Brink, H., & Wilschut, A. (2018). A review of financial-literacy education programs for children and adolescents. *Citizenship, Social and Economics Education*, 17(1), 56–80. <https://doi.org/10.1177/2047173417719555>
6. Appio, F. P., Cesaroni, F., & Di Minin, A. (2014). Visualizing the structure and bridges of the intellectual property management and strategy literature: a document co-citation analysis. *Scientometrics*, 101(1), 623–661. <https://doi.org/10.1007/s11192-014-1329-0>
7. Appio, F. P., Martini, A., Massa, S., & Testa, S. (2016). Unveiling the intellectual origins of social media-based innovation: insights from a bibliometric approach. *Scientometrics*, 108(1), 355–388.

8. Barrot, J. S., Gonzales, J. M., Eniego, A. A., Salipande, A. L., & Olegario, M. L. G. (2024). Integrating Financial Literacy into the K-12 Curriculum: Teachers' and School Leaders' Experience. *Asia-Pacific Education Researcher*, 33(1), 17–25. <https://doi.org/10.1007/s40299-022-00704-y>
9. Brimble, M., & Blue, L. (2013). Tailored financial literacy education: An indigenous perspective. *Journal of Financial Services Marketing*, 18(3), 207–219. <https://doi.org/10.1057/fsm.2013.16>
10. Brovchak, S. V., Selivanova, M. A., Sochneva, E. N., Firsanova, O. V., Tsyganov, A. A., & Shubayeva, V. G. (2019). Issues of increase in financial literacy of students of higher educational institutions of financial and economic orientation. *Perspektivy Nauki i Obrazovania*, 41(5), 130–146. <https://doi.org/10.32744/pse.2019.5.10>
11. Chidiogo Uzoamaka Akpuokwe, Chidinma Favour Chikwe, & Nkechi Emmanuella Eneh. (2024). Leveraging technology and financial literacy for women's empowerment in SMEs: A conceptual framework for sustainable development. *Global Journal of Engineering and Technology Advances*, 18(3). <https://doi.org/10.30574/gjeta.2024.18.3.0041>
12. Collin, D. (2011). Aboriginal Financial Literacy in Canada: Issues and Directions. Research Paper Prepared for the Task Force on Financial Literacy.
13. Donthu, N., Kumar, S., Mukherjee, D., Pandey, N., & Lim, W. M. (2021). How to conduct a bibliometric analysis: An overview and guidelines. *Journal of Business Research*, 133, 285–296.
14. Dunn, B. (2023). For financial illiteracy. *Economic and Labour Relations Review*, 34(2), 299–313. <https://doi.org/10.1017/elr.2023.8>
15. Fahimnia, B., Sarkis, J., & Davarzani, H. (2015). Green supply chain management: A review and bibliometric analysis. In *International Journal of Production Economics* (Vol. 162, pp. 101–114). <https://doi.org/10.1016/j.ijpe.2015.01.003>
16. Ferilli, G. B., Palmieri, E., Miani, S., & Stefanelli, V. (2024). The impact of FinTech innovation on digital financial literacy in Europe: Insights from the banking industry. *Research in International Business and Finance*, 69. <https://doi.org/10.1016/j.ribaf.2024.102218>
17. Fernandes, D., Lynch Jr., J. G., & Netemeyer, R. G. (2014). Financial literacy, financial education, and downstream financial behaviors. *Management Science*, 60(8), 1861–1883. <https://doi.org/10.1287/mnsc.2013.1849>
18. Grobbelaar, C., & Alsemgeest, L. (2024). Gamification as an Educational Tool for Retirement Planning. *Adult Learning*. <https://doi.org/10.1177/10451595241286913>
19. Gudjonsson, S., Jonsdottir, S. M., & Minelgaite, I. (2022). Knowing More Than Own Mother, Yet not Enough: Secondary School Students' Experience of Financial Literacy Education. *Pedagogika*, 145(1), 5–21. <https://doi.org/10.15823/p.2022.145.1>
20. Harcourt-Cooke, C., Els, G., & van Rensburg, E. (2022). Using comics to improve financial behaviour. *Journal of Behavioral and Experimental Finance*, 33. <https://doi.org/10.1016/j.jbef.2021.100614>
21. Heath, J. A. (2016). Youth financial literacy in the United States: A patchwork approach. In *International Handbook of Financial Literacy* (pp. 369–380). https://doi.org/10.1007/978-981-10-0360-8_25
22. Huston, S. J. (2010). Measuring Financial Literacy. *Journal of Consumer Affairs*, 44(2), 296–316. <https://doi.org/10.1111/j.1745-6606.2010.01170.x>
23. Kaiser, T., Lusardi, A., Menkhoff, L., & Urban, C. (2022). Financial education affects financial knowledge and downstream behaviors. *Journal of Financial Economics*, 145(2), 255–272. <https://doi.org/10.1016/j.jfineco.2021.09.022>
24. Kaiser, T., & Menkhoff, L. (2017). Does financial education impact financial literacy and financial behavior, and if so, when? *World Bank Economic Review*, 31(3), 611–630. <https://doi.org/10.1093/wber/lhx018>
25. Koh, N. K. (2016). Approaches to teaching financial literacy: Evidence-based practices in Singapore schools. In *International Handbook of Financial Literacy* (pp. 499–513). https://doi.org/10.1007/978-981-10-0360-8_32
26. Lakshmi, R. M., & Bharathi, A. M. (2023). Enhanced human growth through technical financial literacy. In *Resource Management in Advanced Wireless Mobile Networks* (pp. 291–304). <https://doi.org/10.1002/9781119827603.ch14>

27. LeBaron-Black, A. B., Kelley, H., & Sorgente, A. (2025). Introduction to the Handbook. In *Flourishing and Floundering Financially in Emerging Adulthood: A Handbook* (pp. 1–6). <https://doi.org/10.1093/9780197699157.003.0001>
28. Liu, S., Gao, L., Latif, K., Dar, A. A., Zia-UR-Rehman, M., & Baig, S. A. (2021). The Behavioral Role of Digital Economy Adaptation in Sustainable Financial Literacy and Financial Inclusion. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.742118>
29. Liu, Z., Yin, Y., Liu, W., & Dunford, M. (2015). Visualizing the intellectual structure and evolution of innovation systems research: a bibliometric analysis. *Scientometrics*, 103(1), 135–158.
30. Lusardi, A. (2019). Financial literacy and the need for financial education: evidence and implications. *Swiss Journal of Economics and Statistics*, 155(1). <https://doi.org/10.1186/s41937-019-0027-5>
31. Lusardi, A., & Mitchell, O. (2007). Financial literacy and retirement preparedness: Evidence and implications for financial education. *Business Economics*, 42(1), 35–44. <https://doi.org/10.2145/20070104>
32. Lusardi, A., & Tufano, P. (2015). Debt literacy, financial experiences, and overindebtedness. *Journal of Pension Economics & Finance*, 14(4), 332–368.
33. Mandell, L., & Klein, L. S. (2009). The impact of financial literacy education on subsequent financial behavior. *Journal of Financial Counseling and Planning*, 20(1), 15–24. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-77953754941&partnerID=40&md5=30c5a412e9c360625331e146fe864132>
34. Marinov, K. M. (2023). Financial Literacy: Determinants and Impact on Financial Behaviour. *Economic Alternatives*, 2023(1). <https://doi.org/10.37075/EA.2023.1.05>
35. Matey, J., Duut, J. Y., & Kombian, M. F. (2021). Financial Literacy Education: Implication on the Economic and Social Life of the Teacher in Ghana. *International Research Journal of Multidisciplinary Scope*, 2(1), 14–27. <https://doi.org/10.47857/irjms.2021.v02i01.046>
36. Meier, M. (2011). Knowledge management in strategic alliances: A review of empirical evidence. *International Journal of Management Reviews*, 13(1), 1–23.
37. O'Neill, B. M., & Hensley, B. J. (2016). Building the financial education capacity of teachers: Does it make a difference? In *International Handbook of Financial Literacy* (pp. 639–654). https://doi.org/10.1007/978-981-10-0360-8_40
38. Partha Sarathi, S., & Kalyan, N. B. (2025). Socio-Demographic Influences on Financial Literacy: An Analysis of Annamacharya University Students. *International Research Journal of Multidisciplinary Scope*, 6(2), 544–552. <https://doi.org/10.47857/irjms.2025.v06i02.03139>
39. Pavithra, J., & Ganesan, M. (2016). A study on awareness and impact of micro-financial schemes. *International Journal of Applied Business and Economic Research*, 14(8), 5449–5460. <https://www.scopus.com/inward/record.uri?eid=2-s2.0-84987810032&partnerID=40&md5=617135229d38f46ff7a5d07f69a3c3c1>
40. Ravikumar, T., Suresha, B., Prakash, N., Vazirani, K., & Krishna, T. A. (2022). Digital financial literacy among adults in India: measurement and validation. *Cogent Economics and Finance*, 10(1). <https://doi.org/10.1080/23322039.2022.2132631>
41. Solomon, G. E., Nhete, T., & Sithole, B. M. (2018). The Case for the Need for Personal Financial Literacy Education in Botswana Secondary Schools. *SAGE Open*, 8(1). <https://doi.org/10.1177/2158244017753867>
42. Song, C. L., Pan, D., Ayub, A., & Cai, B. (2023). The Interplay Between Financial Literacy, Financial Risk Tolerance, and Financial Behaviour: The Moderator Effect of Emotional Intelligence. *Psychology Research and Behavior Management*, 16. <https://doi.org/10.2147/PRBM.S398450>
43. Sun, W., Wu, J., & Yang, H. (2024). Increasing entrepreneurs through green industrial parks: evidence from special economic zones in China. *Annals of Regional Science*, 72(2). <https://doi.org/10.1007/s00168-022-01200-3>
44. Thakur, S., & Mago, M. (2020). Impact of financial literacy programs on financial planning of the participants. *International Journal of Business and Emerging Markets*, 12(3), 259–273. <https://doi.org/10.1504/IJBEM.2020.109597>

45. Tian, C., & Wang, C. (2022). Financial literacy education and high school students - overview, analysis, suggestions and implications. *International Journal of Services, Economics and Management*, 13(1), 1–16. <https://doi.org/10.1504/IJSEM.2022.121883>
46. Tomášková, H., Mohelská, H., & Němcová, Z. (2011). Issues of financial literacy education. *Procedia - Social and Behavioral Sciences*, 28, 365–369. <https://doi.org/10.1016/j.sbspro.2011.11.069>
47. Uthaileang, W., & Kiattisin, S. (2023). Developing the capability of digital financial literacy in developing countries: A Case of online loan for small entrepreneurs. *Heliyon*, 9(12). <https://doi.org/10.1016/j.heliyon.2023.e21961>
48. van Eck, N. J., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *Scientometrics*, 84(2), 523–538. <https://doi.org/10.1007/s11192-009-0146-3>
49. Van Eck, N. J., & Waltman, L. (2007). VOS: A new method for visualizing similarities between objects. *Advances in Data Analysis: Proceedings of the 30th Annual Conference of the Gesellschaft Für Klassifikation EV, Freie Universität Berlin, March 8--10, 2006*, 299–306.
50. Verbeek, A., Debackere, K., Luwel, M., Andries, P., Zimmermann, E., & Deleus, F. (2002). Linking science to technology: Using bibliographic references in patents to build linkage schemes. *Scientometrics*, 54(3), 399–420.
51. Walstad, W. B., Rebeck, K., & MacDonald, R. A. (2010). The effects of financial education on the financial knowledge of high school students. *Journal of Consumer Affairs*, 44(2), 336–357. <https://doi.org/10.1111/j.1745-6606.2010.01172.x>
52. Williams, A. J., & Oumlil, B. (2015). College student financial capability: A framework for public policy, research and managerial action for financial exclusion prevention. *International Journal of Bank Marketing*, 33(5). <https://doi.org/10.1108/IJBM-06-2014-0081>
53. Wu, Y. C. J., & Wu, T. (2017). A decade of entrepreneurship education in the Asia Pacific for future directions in theory and practice. In *Management Decision* (Vol. 55, Issue 7, pp. 1333–1350). <https://doi.org/10.1108/MD-05-2017-0518>
54. Xiao, J. J., & O'Neill, B. (2016). Consumer financial education and financial capability. *International Journal of Consumer Studies*, 40(6), 712–721. <https://doi.org/10.1111/ijcs.12285>
55. Xiao, J. J., & Porto, N. (2017). Financial education and financial satisfaction: Financial literacy, behavior, and capability as mediators. *International Journal of Bank Marketing*, 35(5), 805–817. <https://doi.org/10.1108/IJBM-01-2016-0009>
56. Xu, X. (2018). Assessing a community-based financial literacy program: A case study in California's Silicon Valley. *Journal of Financial Counseling and Planning*, 29(1). <https://doi.org/10.1891/1052-3073.29.1.142>
57. Yamang, C., & Roy, A. (2022). Review on the assessment of financial literacy across the globe. *International Journal of Business Innovation and Research*, 29(2), 141–168. <https://doi.org/10.1504/ijbir.2022.126034>
58. Yoshino, N., Messy, F.-A., & Morgan, P. J. (2016). Promoting better lifetime planning through financial education. In *Promoting Better Lifetime Planning through Financial Education*. <https://doi.org/10.1142/9895>
59. Zhang, X., Wang, G., Ma, J., & Bai, H. (2024). The impact of income level on skeletal muscle health in rural Chinese older residents: a study of mediating effects based on dietary knowledge. *Frontiers in Public Health*, 12. <https://doi.org/10.3389/fpubh.2024.1329234>
60. Zhao, X. (2017). A scientometric review of global BIM research: Analysis and visualization. *Automation in Construction*, 80, 37–47.
61. Zulaihati, S., Susanti, S., & Widyastuti, U. (2020). Teachers' financial literacy: Does it impact on financial behaviour? *Management Science Letters*, 10(3). <https://doi.org/10.5267/j.msl.2019.9.014>
62. Zupic, I., & Čater, T. (2015). Bibliometric methods in management and organization. *Organizational Research Methods*, 18(3), 429–472.