ACCOUNTING & FINANCE REVIEW

IJAFR VOL 14 NO 1 (2023) P-ISSN 2576-1285 E-ISSN 2576-1293

Available online at https://www.cribfb.com
Journal homepage: https://www.cribfb.com/journal/index.php/ijafr
Published by CRIBFB, USA

IMPACT OF FINANCIAL LITERACY ON INVESTORS: A SYSTEMATIC LITERATURE REVIEW USING PRISMA PROTOCOL

Ritika Maurya [(a)1] *Anu Mohta* [(b)] *V Shunmugasundaram* [(c)]

[(a)] *Research Scholar, Banaras Hindu University, Varanasi, India; E-mail: ritikamaurya05@gmail.com*
[(b)] *Research Scholar, Banaras Hindu University, Varanasi, India; E-mail: anumohta123@gmail.com*
[(c)] *Professor, Faculty of Commerce, Banaras Hindu University, Varanasi, India; E-mail: sundaram@bhu.ac.in*

ARTICLE INFO

Article History:

Received: 5th January 2023
Revised: 25th February 2023
Accepted: 26th February 2023
Published: 28th February 2023

Keywords:

Financial Literacy, Investment, Investors, PRISMA, Systematic Literature Review, Financial Management

JEL Classification Codes:

G50, G51, G52, G53

ABSTRACT

Financial literacy is the potential to understand and productively use different financial skills such as managing finance, budgeting and investing. FL has been considered one of the most important factors to improve the growth of investors and the economy as a whole. This study's main purpose is to present a Systematic Literature Review (SLR) on FL and Investment between 2012 and 2021. The Systematic Literature Review analysis has been performed based on the PRISMA to analyse 26 related articles obtained from the Web of Science, Taylor and Francis and Jstor database. The review of the paper has been categorised based on publication year, a journal list, publication by authors number, features of review articles, tools and techniques applied, variables, findings and practical implications and outcomes of the area of study. The outcomes of this paper provide an understanding of the publication criteria of financial literacy and investment along with that it also offers possible approaches for further publications. The findings of the study also analyse the impact of financial literacy on investors. The study will provide an in-depth understanding of the concepts of Financial Literacy. The study suggests that future researchers initiate further research on financial literacy and investment and also diversify the broader study period. This paper is the first of its kind to identify the impact of investment preference on investors.

INTRODUCTION

Financial Literacy (FL) has extracted the attention of many previous researchers to investigate the influence of financial literacy on investors. To make a better financial decision, financial literacy plays a very significant role and it is a combination of financial behaviour, attitude, skill, knowledge and awareness (Murugiah, 2016). Every investor needs to manage their finances effectively to avoid any kind of financial losses or problems. According to the definition given by the Organisation for Economic Co-operation and Development (OECD) (Organisation for Economic Co-operation and Development., 2013), 'the financial literacy refers to the knowledge and comprehension of financial skills, risks and concepts, motivation and confidence to use such information and understanding to make fruitful decisions and improve the financial welfare of individual and the society.' The lack of financial literacy among investors results in bad financial decision-making, personal bankruptcy and market downfall (Jin et al., 2021). The better financially literate investors are more likely to make better financial decisions (Guiso & Viviano, 2015). Investors with good financial knowledge and understanding can expect higher returns on their retirement investments (Clark et al., 2017). The fear of loss or risk is the most important factor in any financial decision. Hence, financial planning is considered an important factor to avoid any kind of risk (Reddy & Mahapatra, 2017).

Various previous studies manifested that there is a positive impact of financial literacy on financial behaviour and the financial position of investors. Investors with a better financial literacy are more active in managing their savings, budget planning and spending (Azmi et al., 2020), managing loans and credits (Mehboob & Othman, 2020), engaging in the

[1]*Corresponding author: ORCID ID: 0000-0001-6670-0286*

https://doi.org/10.46281/ijafr.v14i1.1975

To cite this article: Maurya, R., Mohta, A., & Shunmugasundaram, V. (2023). IMPACT OF FINANCIAL LITERACY ON INVESTORS: A SYSTEMATIC LITERATURE REVIEW USING PRISMA PROTOCOL. *International Journal of Accounting & Finance Review*, *14*(1), 53-66. https://doi.org/10.46281/ijafr.v14i1.1975

financial market and trading (Nguyen & Nguyen, 2020), proper planning for retirement (Ahmad & Ahmad, 2018) and increasing their wealth successfully (Ahmad & bin Ahmad, 2019; Rahadi et al., 2019).

The widespread lack of financial literacy among investors is adversely affecting their financial decisions of investors (Lusardi et al., 2011). The help from a financial advisor who provides unbiased advice could eliminate the negative effects of financial illiteracy. Kramer (2016) found a strong and significant negative relationship between self-assessed financial literacy and taking expert advice. A survey conducted by (Lusardi & Mitchell, 2014) determined that the human capital approach to financial literacy has significant implications for welfare analysis and policies deliberated to increase the financial literacy level in the huge population. As per the study of (Gargano & Rossi, 2018), it is determined that the performance of investors improves with higher attention to overall analytical information and portfolio. The suggestion given by Vaarmets et al. (2019) is that the disposition effect can be reduced with improvement in financial literacy level. Individuals possessing a higher level of financial literacy are more likely to possess certain attributes such as patience, ability or talent, which help them to make better financial decisions (Meier & Sprenger, 2013). The individual having good financial literacy their losses on loans tend to be smaller and predictable because they have definite plans for loans and repayment of loans as compared to less financially literate individuals (Kim, 2015). This study is conducted to review the impact of financial literacy on investors and study the relationship between them. Past 10 years articles have been considered for SLR using PRISMA guidelines.

The research aims to compose the main outcomes of financial literacy and by that contribute to the practitioner and academic community by identifying the conceptualization of FL, tools and techniques, variables, findings and practical implications and the outcomes of the study areas. The present study aims to answer the following research questions:

RQ 1. What are the tools and techniques of previous FL in the literature?
RQ 2. What are the variables, findings and practical implications of FL?
RQ 3. What are the outcomes of the studied areas of FL?

The paper is framed in the following manner: Section 2 explains the methodology. Section 3 presents the main findings derived from the systematic literature review and finally, Section 4 elucidates the conclusion and directions for future research.

MATERIALS AND METHODS

The Systematic Literature Review was first suggested by (Tranfield et al., n.d.) and also used PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analysis) which includes a four-stage flowchart (Moher et al., 2009) **Figure 1**. PRISMA tool uses different techniques to search papers systematically and literature for review studies. The PRISMA is segregated into three steps: Review Planning, Review Conducting and Results Reporting (Tranfield et al., n.d.). One of the main benefits of using the PRISMA protocol is that it saves time in searching the articles related to the subject area. Because of the shortage of a comprehensive list for carrying out a systematic literature review in the field of finance, the authors who planned to conduct a systematic literature review have to depend on the already existing descriptive protocol (Pahlevan-Sharif et al., 2019) and need to carry out and report the stages carefully. The final search was done on 11-05-2022. All these stages are classified in the following sections.

Review Planning

Once the objective of the study is determined, the very first step is the Identification of the search terms or keywords. And for this decision, it is important to determine what to be searched, the time interval and the sources to be adopted (Moreno-Montes De Oca et al., 2015).

The keywords used were: <ALL(“investors” AND “financial literacy”)> Table 1. The search was done using the ALL to get wider articles and studies related to FL. The databases used for the study were: Web of Science, Taylor & Francis and Jstor as these three databases are among the most considerable databases of peer-reviewed literature and provide a wide variety of disciplines. More than one database is used to avoid any kind of bias and create transparency in this study protocol (Briner and Denyer, 2012). The Systematic Literature Review includes papers only from Journals and written in the English language only. The inclusion and exclusion of papers have been represented in Table 2.

Table 1. Keywords applied during the systematic literature review process

Databases	Keywords
Web of Science	
Taylor & Francis	ALL(“investors”) AND (“financial literacy”)
Jstor	

Source: Author’s compilation

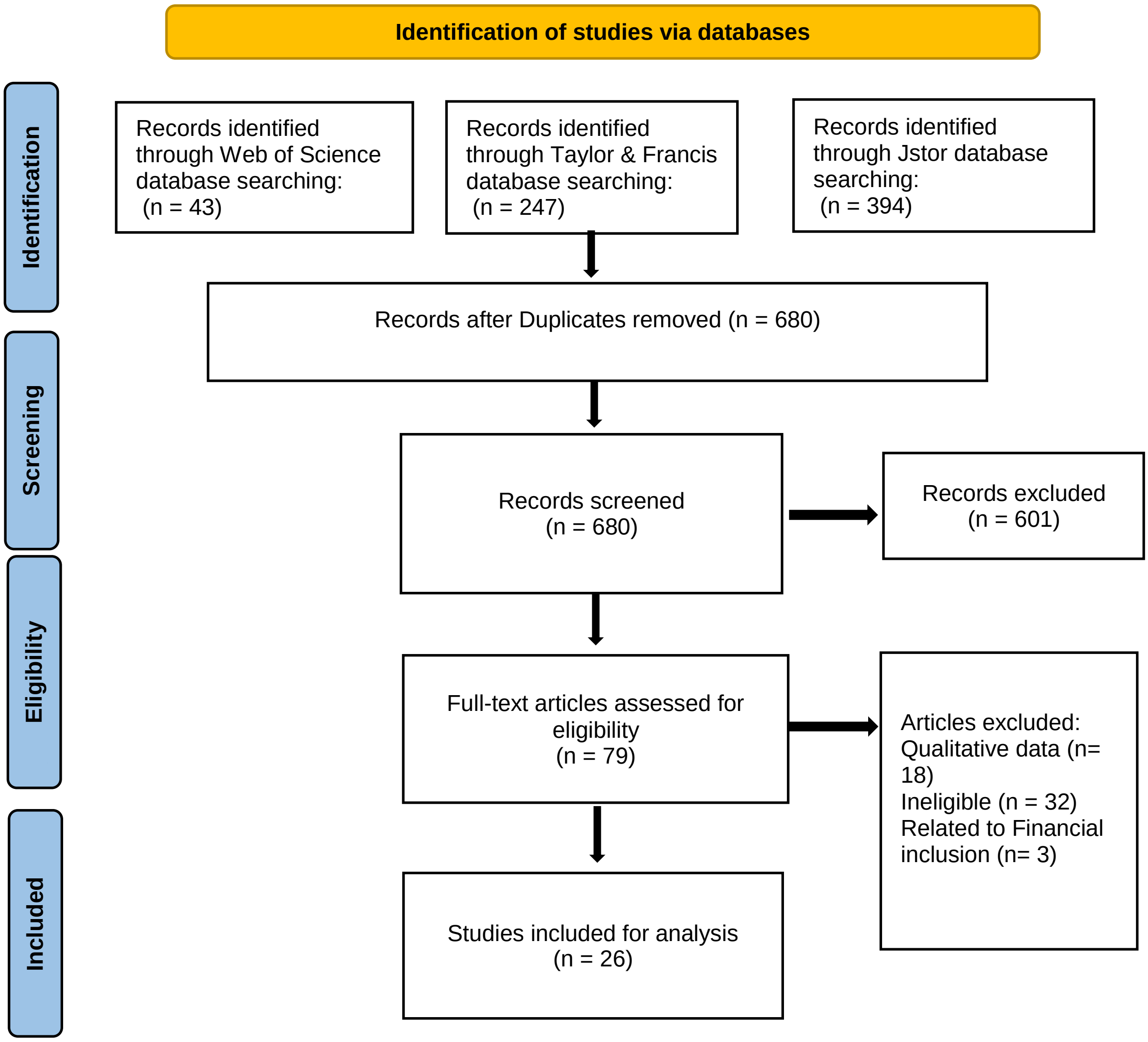

Figure 1. PRISMA flowchart of the Systematic Literature Review
Source: Moher et al. (2009)

Table 2. Inclusion and Exclusion Criteria

Criteria	Inclusion	Exclusion
Access	Open Access	Closed Access
Document Type	Article	Book chapter, Review, Conference paper, Book, Editorial, Letter, Short survey
Source Type	Journal	Book, Conference proceeding and book series
Language	English	Non-English
Period	2012-2021	2011 and below
Subject Area	Economics, Finance, Accounting, Business, Management	Other Subjects

Source: Author's Compilation

On the three selected databases: Web of Science, Taylor & Francis and Jstor, a total of 684 papers were identified between 8the May 2022 to 11th May 2022 of which 4 were duplicated Figure 1. The next step is to apply the Screening process, where these papers are analysed based on titles, abstracts and/or keywords and from which 601 articles were excluded. The remaining articles were evaluated for Eligibility. 18 articles were excluded as they were qualitative in nature, 3 were related to financial inclusion and were not covering the objective of the study and 32 were ineligible. Therefore, 26 articles were selected and fully reviewed between 16th May 2022 to 29th May 2022.

Review Conducting

As per the proposer of the Systematic Literature Review (Tranfield et al., n.d.), the research paper should be vast and provide a two-phase report: Descriptive analysis and Main analysis.

The descriptive analysis provides information for example the publication by year, journal list and publication by the authors. All this information was collected to recognise the trend involved in the research area.

The main analysis was used to systematize and gather the information to achieve the objective of the study. The analysis began with the full-text reading of the papers and got familiar with the contents. After which the author categorises the area of the studies according to the objective and research questions of the study. After that, the information was recorded, combined and systematized.

Result Reporting

The last step is to provide a report which verifies the repetition of the Systematic Literature review and explains the overall outcomes (Tranfield et al., n.d.). The researcher carried out an analysis process and by considering the research objective, the main findings and trends have been recognised.

RESULTS AND DISCUSSIONS

After the systematic review of the papers, the papers were classified into the following dimensions: 1) Trends of publication by year, 2) Paper per journal, 3) Publication by the authors, 4) Features of the review articles 5) Tools and Techniques mentioned, 6) Variables, Findings and Practical Implications, and 7) Analysis of the Financial Literacy area.

Descriptive Analysis

Analysis of the Trend of Publication by Year

Figure 2 represents the number of articles published from the year 2012-2021. One article by (Hermansson et al., 2022) got available on the online platform in Nov. 2021 but has been published in the journal of 2022. Therefore, this paper has also been considered in the study. The highest publications of articles were 5 in two years i.e. 2015 and 2021. And the lowest publication of articles was in 2013 i.e. 0. The given data show after 2015 there is an increase in the number of publications, approximately 5 times as compared to 2012.

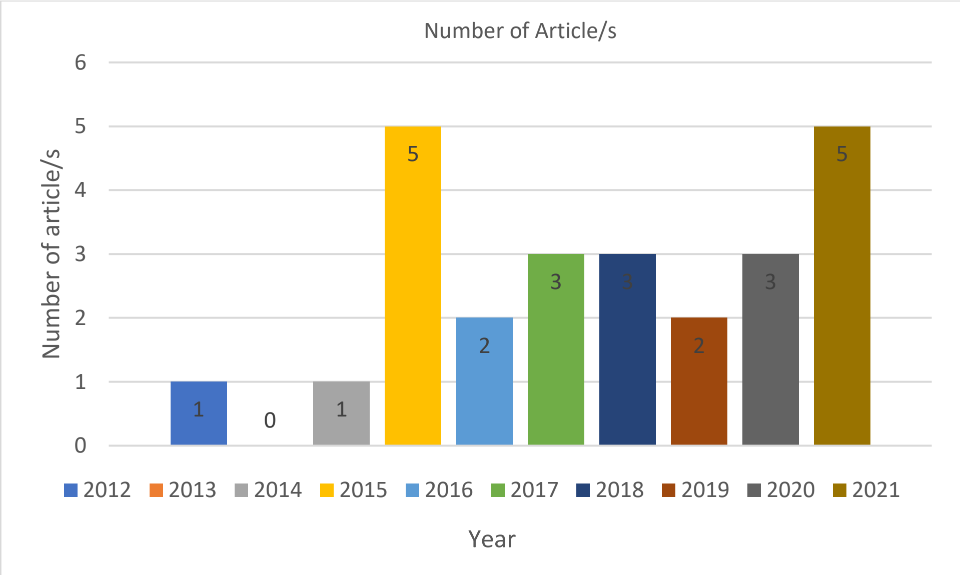

Figure 2. The trend of Publication of Articles by Year

List of Paper per Journal

Table 3 Represents the number of articles collected from different journals. There were 17 Journals and which published 26 articles related to financial literacy among investors. Table 3. Shows the highest number of articles published in Cogent Economics and Finance, with a total of 4 articles.

Table 3. Journal List

No.	Journal Name	No. of article/s
1.	Cogent Economics and Finance	4
2.	European Accounting Review	1
3.	Economic Research- Ekonomska Istrazivanja	1
4.	Cogent Business and Management	1
5.	European Journal of Finance	3
6.	Journal of Economic Behavior and Organisation	2
7.	Journal of International Money and Finance	1
8.	International Review of Financial Analysis	1
9.	Journal of Pension Economics and Finance	2
10.	Review of Finance	1
11.	Journal of Finance	1
12.	Management Science	1
13.	Economic Policy	1
14.	The Economic Journal	1

15.	The Journal of Developing Areas	1
16.	The Journal of Consumer Affairs	3
17.	Journal of Financial Education	1
	TOTAL	26

Source: Author's Compilation

Publication by the authors

Table 4 represents the number of authors that contributed to the published articles. The outcome shows the highest number of published articles is by three authors i.e. 46.15% (12 articles) while a single author contributed 23.09% (6 articles) to published articles and two and more than three authors contributed 15.38% each (4 articles each) to published articles. The finding showed that the trend of contribution to published articles is mostly by three authors.

Table 4. Authors' Contribution

Number of author/s	Frequency	Percentage %
Single Author	6	23.09
Two Authors	4	15.38
Three Authors	12	46.15
More than Three Authors	4	15.38
TOTAL	26	100

Source: Author's Compilation

Features of Review Articles

Table 5 represents the descriptive features of the reviewed research articles. All the 26 papers used a quantitative approach. No qualitative and mixed approach was considered. The data collection methods used primary along with secondary sources (11 papers) but most of the articles were collected from secondary sources (15 papers). Table 4 also represents the number of citations obtained by articles. The highest number of citations is obtained by (van Rooij et al., 2012) i.e. 1100, 4 papers got citations ranging between 100-200 and the remaining 21 papers got citations ranging between 1-99. The highest number of the research was conducted in developed countries – 84.61% (22 papers) was conducted in the USA, France, Australia, Italy etc. while in developing countries 15.39% (4 papers) of research was conducted as shown in Table 5.

Table 5. Main features of the articles included in this review

SI No.	Author/s & Year	Country	Sample Size	Citations
1.	(Noor et al., 2020)	Pakistan	564 (Age group: 20+) Purposive sampling Primary & Secondary data	1
2.	(Okello Candiya Bongomin et al., 2020)	Uganda	400 (Age group: 18+) Simple Random sampling Primary & Secondary data	1
3.	(Jin et al., 2021)	United State	Secondary Data (National Financial Capability Study) Survey data	1
4.	(Mudzingiri et al., 2018)	South Africa	191 Convenient Sampling Primary & Secondary data	10
5.	(Çera et al., 2021)	Ghana	600 (Age group: 18+) Random sampling Primary data & Secondary data	2
6.	(Pangestu and Karnadi, 2020)	Indonesia	430 (Age group: 17 to 23) Simple random sampling Primary data & Secondary data	1
7.	(Agyei, 2018)	Ghana	300 (SMEs Owners) Random sampling Primary data & Secondary data	17
8.	(Stålnacke, 2019)	Sweden	617 (Age group: 18 to 73) Stratified random sampling Secondary data	5
9.	(Kramer, 2016)	Netherland	467 Random Sampling Primary data Household-1276 Investors- 354 (De Nederlandsche Bank (DNB) Household Survey (DHS)) Secondary data	183
10.	(Calcagno et al., 2017)	Italy	1116 (UniCredit Investors survey 2007) (Age group: 21-75) Secondary data	23
11.	(Giofré, 2017)	Italy	41 stock markets (Coordinated Portfolio Investment Survey (CPIS)) Secondary data	34
12.	(Hermansson et al., 2022)	Sweden	6871 Convenience sampling Primary & Secondary data	4

13.	(Clark et al., 2017)	USA	2763 Secondary data (Office of Employee Benefit of the Federal Reserve System (OEB Fed))	122
14.	(Jappelli and Padula, 2015)	Europe	14,631 Wave 1 18,332 Wave 2 (11 European countries) (Age group: 50+) Secondary data (Survey of Health, Ageing and Retirement in Europe (SHARE))	97
15.	(Guiso and Viviano, 2015)	Italy	1576 (Italian bank; Age group: 20-80) Secondary data	113
16.	(Bianchi, 2018)	France	511 (French Financial Institution) 30,000 (INSEE) Stratified sampling Secondary data	153
17.	(da Silva et al., 2021)	Portugal	31,513 (Portuguese Financial Institution) Secondary data	1
18.	(Davydov et al., 2021)	Sweden	5,11,641 (Swedish Internet-based bank 'Avanza') Secondary data	1
19.	(Gamble et al., 2015)	USA	575 (Rush Memory and Aging Project (MAP)) Secondary data	94
20.	(Fort et al., 2016)	Italy	4,865 (Bank of Italy's Survey on Household Income and Wealth (SHIW) Age group: 30+) Secondary data	31
21.	(van Rooij et al., 2012)	Netherland	1,091 (De Nederlandsche Bank Household Survey Age group: 30-70) Secondary data	1100
22.	(Reddy and Mahapatra, 2017)	India	297 (Age group: 25+) Random sampling Primary and Secondary data	15
23.	(Lachance, 2014)	USA	50,194 (National Financial Capability Study (NFCS)) Quota sampling Secondary data	67
24.	(Foster et al., 2015)	Australia	577 (MyOpinions online survey platform) Primary and Secondary data	23
25.	(Carmel et al., 2015)	Israel	517 (263 Exp1 + 256 Exp2) Random sampling Primary and secondary data	21
26.	(Brau et al., 2019)	USA	1,493 Primary and Secondary data	17

(Graña-Alvarez et al., 2022)

Main Analysis

Tools and Techniques applied

The definition of FL stated by the authors diversified from article to article, examining different aspects and purposes of FL. Although, the general aim was that FL is important not only for individuals but the economy of the country as it helps individuals in understanding the concepts of finance and managing their money in a better way and contributes to the economic growth of the country.

Table 6 represents an analysis of the most common tools and techniques that were used in the reviewed papers. This compilation represents the tools and techniques broadly used by the authors for quantitative analysis. Multiple tools and techniques were used by several authors in their studies.

The main mentioned tools and techniques are Correlation Analysis, Regression, Descriptive Statistics and graphs used to study the quantitative studies (Foster et al., 2015). Cox proportional hazard model, CAPM model and Linear probability model were used for investigating the possibility of certain events at a specific time (Guiso and Viviano, 2015).

Table 6. Tools and techniques mentioned

Tools & Techniques	Number of Papers
Correlation Analysis	8
Regression	20
Descriptive Statistics	16
ANOVA	2
t-test	4
Z-test	1
Graph	6
Factor Analysis	1
Univariate test	3
Multivariate test	3
Cox proportional hazard model	2
CAPM model	1

Linear probability model	1
Partial Least Square	1
Likert scale	1

Source: Author's Compilation

Variables, Findings and Practical Implications of Financial Literacy

Discussion views by various authors were found regarding the impact of financial literacy on the investors. **Table 7** shows the objectives, variables use, findings and suggestions relating to FL.

Table 7. Variables, Findings and Recommendations mentioned

Author/s & Year	Title	Objectives	Variables	Findings	Practical Implications
(Noor et al., 2020)	Financial literacy, financial self-efficacy and financial account ownership behavior in Pakistan	To evaluate the effect of financial literacy and financial self-efficacy on the behaviour of financial account ownership.	Independent variable: Financial Literacy Control Variables: Age, Sex, Marital status & Income Dependent Variables: Financial Inclusion, Financial Self-efficacy	The study's findings show that there is no mediating effect of financial self-efficacy on the relationship between financial literacy and behaviour of financial account ownership. And financial literacy has a strong positive effect on the behaviour of financial account ownership.	The study contributes to the National Financial Inclusion Strategy (NFIS) which was implemented by the State Bank of Pakistan in collaboration with the Government of Pakistan.
(Okello Candiya Bongomin et al., 2020)	Examining the role of financial intermediaries in promoting financial literacy and financial inclusion among the poor in developing countries: Lessons from rural Uganda	To analyse the role of Financial Intermediaries in encouraging financial literacy and financial inclusion among rural people of Uganda	Independent variable: Financial Literacy Mediator Variables: Financial Intermediaries Dependent Variables: Financial Inclusion	The study shows that financial intermediaries play a significant role in encouraging financial literacy and financial inclusion in rural areas. It is also determined that financial literacy significantly affects the financial inclusion of rural people.	The policymakers should organise financial literacy workshops and seminars to increase financial education among rural investors. The existing microfinance banks could be used as a financial literacy centre to promote financial education among the rural population.
(Jin et al., 2021)	Does Citizens' Financial Literacy Relate to Bank Financial Reporting Transparency?	To evaluate the relationship between the financial literacy and transparency of financial reports of banks.	Independent Variables: Bank Financial Report Dependent variables: Loan loss provision, financial literacy	The findings show that there is a negative relationship between financial literacy and loan loss provisions. Financial literacy improves the earning capacity of banks.	NIL
(Mudzingiri et al., 2018)et al., 2018)	Financial behavior, confidence, risk preferences and financial literacy of university students	To identify whether the confidence level, time preference, risk preference, financial behaviour and financial literacy perception of university students differ by financial literacy level.	Independent Variables: Financial Literacy Independent Variables: Financial behaviour, Personal finance, debt finance, risk preference index, confidence, time preference, decision making, status	The outcomes reveal that risk preference, confidence, status, time preference and financial behaviour are not influenced by financial literacy level. Financial behaviour is affected by financial perception, risk preference and confidence level.	There is a need to provide financial literacy to investors to create the right level of confidence among them while making investment decisions. By organising empowerment programs, the students could be encouraged to build their income and take their financial decisions.
(Çera et al., 2021)	Improving financial capability: the mediating role of financial behaviour	To study the impact of financial literacy on loan repayment.	Independent Variables: Financial Literacy Dependent Variables: Loan Repayment Control Variables: income, age, marital status, repayment mode	From the study, it is determined that the loan repayment position among more financially literate individuals is better as compared to less financially literate individuals. There is a positive relationship between the control variable (age, marital status, income, repayment mode) and dependent variables (loan repayment)	The study recommends that the government, policymakers, and other financial industry players provide financial education. The short-term repayment schedule should be offered by financial institutions to facilitate successful repayment of the loan amount.

(Pangestu and Karnadi, 2020)	The effects of financial literacy and materialism on the savings decision of generation Z Indonesians	To study the impact of financial literacy and materialism on saving decisions of Generation Z students	Independent Variables: Financial Literacy Dependent Variables: Age, gender, faculty, the purpose of savings	It is determined that financial literacy positively while materialism negatively affects the financial decisions of Gen Z students. Age positively affects financial literacy. Female students have less financial literacy as compared to male students.	It is suggested that policymakers should make a compulsory subject of financial education in every school and college.
(Agyei, 2018)	Culture, financial literacy, and SME performance in Ghana	To determine the impact of financial literacy on financial decisions, fund allocation, investment selection and awareness of owners of SMEs.	Independent Variables: Financial Literacy Dependent Variables: awareness, financial decisions, fund allocations, investment selection Control Variables: Culture, Gender, Age, Education, Course Studied	The study reveals that financial literacy among SME owners has improved even though most SME owners face difficulty in understanding the diversification concept. The association between financial literacy and SME growth is dependent on cultural context.	The financial literacy programs and events should be organised to provide training to SME owners. It is recommended that religious bodies should include financial literacy program training in their teaching.
(Stålnacke, 2019)	Individual investors' information use, subjective expectations, and portfolio risk and return	To identify the sources used by investors to make their financial decisions	Information Variables: Unfiltered Financial information, Filtered financial information, financial information from others Control Variables: Financial knowledge, number of trades, experience, overconfidence, education, risk aversion, gender, age Dependent Variables: Risk expectations, Return expectations, Confidence, Self-assessed return	It is observed that most of the investors take filtered financial information i.e. brokers, TV, newspapers, websites, etc. But the investors who take their financial decisions using unfiltered financial information i.e., balance sheet, income statement and cash flow of the company perform better by generating high returns.	The policymakers should contemplate the importance of risk and return. Risk and return should be considered while evaluating the report to meet the requirements of investors.
(Kramer, 2016)	Financial literacy, confidence and financial advice seeking	To determine the association between financial literacy, confidence and financial advice seeking.	Independent variables: Financial literacy Dependent variables: Financial advice, Confidence Control variables: gender, age, education, occupation, income, wealth, experience, risk tolerance, time preference	It is found from the study that households and investors having good financial literacy and confidence levels opt less for financial advice. There is no relationship between financial literacy and financial advice seeking.	To determine the retail financial products the financial institution should be more careful while using self-assessed literacy. The policymakers should provide advice to less financial literate investors.
(Calcagno et al., 2017)	To trust is good, but to control is better: How investors discipline financial advisors' activity	To determine whether the investors apply some type of control over the advice they receive from professional advisors.	Independent variable: Financial literacy Dependent variables: Risk aversion, financial advice, Delegation	It is analysed that irrespective of the level of financial literacy, the investor fully delegates their decisions having high trust in the professional advisors.	The policymakers should help the less knowledgeable investors by providing them with professional advisors.
(Giofré, 2017)	Financial education, investor protection and international portfolio diversification	To analyse the impact of financial education on foreign portfolio investment	Independent variable: Financial Knowledge, Minority shareholders rights index Dependent variables: Equity portfolio share, Market share Control variables: Measures of legal protection, Time-invariant country controls, Time-varying country controls, Bilateral specific controls	It is evaluated that with lower investor protections the investors with better financial literacy invest higher in foreign portfolios. While investors with lower financial literacy avoid investing in countries demanding higher information costs.	NIL
(Hermansson et al., 2022)	The medium is the message: Learning channels, financial literacy,	To study the effect of learning sources on participation in the stock market.	Independent variables: Financial literacy, Learning channels	It is analysed that there is a positive relationship between financial literacy and stock market	The policymakers should try to provide financial literacy and access to information

	and stock market participation		Dependent variables: Private network, Financial advisor, Media, Stock market participation Control variables: Age, Gender, Education, Family status, Risk tolerance, Income	participation. It is determined that financial literacy and learning channel together is important for stock market participation.	and advisory channels together to increase the stock market participation of investors.
(Clark et al., 2017)	Financial knowledge and 401(k) investment performance: A case study	To determine whether the investors with better financial literacy earn better on their retirement investment plans.	Independent variable: retirement plan Dependent variables: Financial knowledge, Portfolio outcome	The study shows that investors with lower financial literacy face problems in managing their savings while the investors with better financial literacy save more and have better retirement plans.	The difference in awareness and literacy creates inequality in retirement outcomes. For the benefit of retirement safety, it is important to invest rationally and generate better returns.
(Jappelli and Padula, 2015)	Investment in financial literacy, social security, and portfolio choice	To study the difference in choice of household portfolios to their degree of financial literacy	Independent variables: Financial literacy, Stock-market Participation Dependent variables: Age, Family, Female, Education, Income	It is determined that financial literacy reduces stock market participation costs. The financial literacy acquired at the early stage of life affects the later financial literacy.	The policymakers should aim at improving the financial literacy level among investors at the early stage of life to have a long-term effect on portfolio administration.
(Guiso and Viviano, 2015)	How much can financial literacy help?	To identify whether financial literacy helped investors during a financial crisis and also evaluate whether investors having better financial literacy were more likely to avoid such occurrence.	Independent variables: Financial literacy Dependent variables: Stock market leavers, Risk, Delegation	It is evaluated that the investors having better financial literacy are more capable to manage their investments, sell one's stocks when it is high rather than when it is low and able to avoid wrong advice as compared to the less financially literate investors.	NIL
(Bianchi, 2018)	Financial Literacy and Portfolio Dynamics	To identify how financial choices help in understanding the relationship between financial literacy and portfolio return and also evaluate whether there is some specific financial behaviour that is correlated with low financial literacy.	Independent variable: Financial literacy Dependent variables: Financial behaviour, Financial choices, Portfolio, Stockholding, Risk, Market return	The study shows that higher financially literate households more diligently restore their portfolios. Households with better financial literacy are more willing to buy assets that provide better returns in comparison to assets they want to sell.	NIL
(da Silva et al., 2021)	The disposition effect among mutual fund participants: a re-examination	To study the relationship between financial literacy, disposition effect and trading experience	Independent variable: Disposition effect Dependent variables: Region, Age, Education, Gender, Occupation, Financial literacy, Trading experience	The study reveals that the ability to persevere to lose find partly indemnify due to financial literacy. The disposition effect could be reduced with higher financial knowledge and math skills.	The existence of the disposition effect forces considerable cost on investors. The existence of better financial literacy among investors would not only benefit the investors but also society as a whole.
(Davydov et al., 2021)	Investor attention and portfolio performance: what information does it pay to pay attention to?	To study the individual characteristics which influence investors' attention and identify the type of information that direct investment performance.	Independent variables: investors' performance, Investors' attention Dependent variables: Portfolio information, Financial education, Analytical information, Technical analysis Control variables: Gender, Portfolio turnover, Age, Account tenure	It is found that the investors having better financial education have better investment performance. The investors benefit more from observing their financial literacy and using their portfolio mix rather than depending on any analytical information.	It is suggested that the brokers and financial intermediaries should make materials available to investors and encourage them to use them for improving their financial literacy.
(Gamble et al., 2015)	Aging and financial decision making	To study the impact of analytical changes with ageing on the financial decision made by old aged investors	Independent variable: Cognition Dependent variables: Decision making, Financial literacy	It is studied that a reduction in perception or cognition is associated with a lower level of financial literacy	There is a need to develop new and innovative schemes to help the old aged investors in maximising their welfare.

(Fort et al., 2016)	Adult financial literacy and households' financial assets	To determine the different channels which may improve the level of financial literacy and identify the extent to which information policies improve the financial literacy level	Independent variable: Financial literacy Dependent variables: Client of Patti Chiari, Financial assets	It is found that bank information policies are useful for improving the financial literacy of 60+ and less financially educated investors. It is also identified that an increase in financial literacy increases financial assets.	NIL
(van Rooij et al., 2012)	FINANCIAL LITERACY, RETIREMENT PLANNING AND HOUSEHOLD WEALTH	To study the association between financial literacy and net worth. And also determine the two channels through which financial literacy eases wealth collection.	Independent variable: Financial literacy Dependent variables: Total Net Worth, Retirement Plan Control variables: Age, Gender, Education, Marital status	The study shows that financial literacy is positively associated with wealth collection. The analysis also shows that investors with good financial literacy are more likely to invest in stock and have good retirement plans.	NIL
(Reddy and Mahapatra, 2017)	RISK TOLERANCE, PERSONAL FINANCIAL KNOWLEDGE AND DEMOGRAPHIC CHARACTERISTICS-EVIDENCE FROM INDIA	To analyse the effect of financial literacy of investors on their risk tolerance level	Independent variable: financial literacy Dependent variables: Risk tolerance Control variables: Gender, Age, Education, Income, Marital status, Occupation	The study found that demographic factors are significantly associated with risk tolerance. It is also determined that the personal financial knowledge of investors is also significantly associated with financial risk tolerance.	The is a need for the government or policymakers to take initiative to encourage financial literacy among lower-income group investors to train them in managing their personal finance by investing them in suitable investment options.
(Lachance, 2014)	Financial Literacy and Neighborhood Effects	To determine the effects of neighborhood characteristics on financial literacy	Independent variable: Neighborhood education Dependent variables: Financial literacy Control variables: Age, Gender, Income, Marital status, Labor force status, Investment advice, Investment risk	It is identified that neighborhood education has an independent and significant impact on the financial literacy of an individual.	People who are not having good resources for financial education face multiple challenges in financial literacy. Those socioeconomic groups lacking financial knowledge should be provided financial education by organising financial literacy programmes.
(Foster et al., 2015)	Presentation Format and Financial Literacy: Accessibility and Assessability of Retirement	To analyse the effects of information placement and financial literacy on retirement saving decisions and determine whether information placement can lead to positive results.	Independent variable: Financial literacy Dependent variables: Knowledge, Familiarity	It is identified that the involvement of a modified presentation format can improve accessibility and assessability. Financial literacy is an important factor in retirement saving decision making.	It is suggested that increment benefits could result from the use of a presentation format that conveys the important information in a better way.
Click or tap here to enter text. (Murugiah, 20	Facing a Biased Adviser While Choosing a Retirement Plan: The Impact of Financial Literacy and Fair Disclosure	To determine the effects of financial advice provided by agents and also study the agent's conflict of interest and financial literacy level of customers	Independent variable: Financial literacy Dependent variables: Plan preference, Compliance	The study found that investors with lower financial literacy tend to accept the advice of agents while financial literate investors rely on both the agent's recommendations and their evaluation of the investment product.	It is suggested that policymakers should try to eliminate the difference in interest in the pension market. It is important to help the investors to choose their plans according to their needs, free from any kind of influence and interest of those trading it.
(Brau et al., 2019)	Financial Education Association Financial Literacy among College Students	To analyse the effectiveness of sources of learning related to financial literacy	Independent variable: Financial literacy Dependent variables: Family background, Formal learning opportunities, Experiential learning opportunities	It is identified that high schools have very little impact on financial literacy while college classes have a significant and positive impact on financial literacy, the experience is considered an important source of gaining financial literacy among students.	It is recommended that the promotion of opportunities for the young generation to gain financial awareness has great importance to both society and the individual.

(Duwal, 2021)

Evaluating the objectives, findings, variables and practical implications of the mentioned articles it has been found that in most of the cases, financial literacy has a significant positive relationship with investors. Higher the level of financial literacy, the better the investors' decisions.

The study conducted by Reddy and Mahapatra (2017) found that there is a positive relationship between demographic factors and risk tolerance levels among investors. And also represented that there is a positive relationship between financial literacy and risk tolerance level and also that investors with better financial knowledge are more capable to manage their investments (Guiso & Viviano, 2015). There is a positive effect of financial literacy on the financial behaviour of financial account holders and also the loan repayment position of the financially literate individuals is better (Çera et al., 2021; Noor et al., 2020) but a study conducted by (Jin et al., 2021) found that there is a negative relationship between financial literacy and loan loss provision. The finding of (Giofré, 2017) shows that there is a positive relationship between financial literacy and foreign portfolio investments. The study found that (Okello Candiya Bongomin et al., 2020) financial intermediaries play a significant role in encouraging financial literacy and financial inclusion in rural areas but the SME owners are facing multiple problems in diversifying their investments (Agyei, 2018).

Mudzingiri et al. (2018) and Pangestu and Karnadi (2020) stated that age and financial decisions positively affects the financial literacy among student while confidence, time preference, financial behaviour and risk preference does not influence the financial literacy level of students.

The information opted from the balance sheet of companies, cash flows etc performs better as compared to individuals obtaining information from brokers, tv and magazines (Stålnacke, 2019). Investors having better financial literacy are more confident and opt less for financial advice (Carmel et al., 2015; Davydov et al., 2021; Kramer, 2016). The study by (Calcagno et al., 2017) found that irrespective of financial literacy, have high trust in the professional advisors and they fully delegate their decisions. Financial literacy is considered to be an important factor in retirement saving and investment decisions/ planning (Clark et al., 2017; Foster et al., 2015; Gamble et al., 2015).

According to the study by (Hermansson et al., 2022; Jappelli & Padula, 2015) there is a positive relationship between financial literacy and stock market participation of investors and also reduces the stock market participation costs. The college classes have a significant positive impact on financial literacy and are more diligent to restore their portfolio (Bianchi, 2018) (Brau et al., 2019). The disposition effect could be reduced with higher financial literacy (da Silva et al., 2021). Neighbourhood education and wealth collection have a significant impact on financial literacy (Lachance, 2014; van Rooij et al., 2012). According to the author (Fort et al., 2016), bank information policies play a significant role in improving the financial literacy of old-aged investors.

The outcomes of Area of Studies relating to Financial Literacy

Table 8 represents the five main areas of the study related to financial literacy and investment mentioned in the previous studies. Among these, the most popular area of the study on financial literacy concerning investment was the Relationship between financial literacy and investors and the Impact of financial literacy on investment sources/choices referred in 8-8 articles in the previous studies.

Table 8. Outcomes of the Financial Literacy area

No.	Area of Studies	Author/s
1.	Relationship between financial literacy and investors	(Noor et al., 2020) (Okello Candiya Bongomin et al., 2020) (Jin et al., 2021) (Çera et al., 2021) (Agyei, 2018) (Giofré, 2017) (Guiso and Viviano, 2015) (Reddy and Mahapatra, 2017)
2.	Impact of financial literacy on the younger generation	(Mudzingiri et al., 2018) (Pangestu and Karnadi, 2020)
3.	Relationship between financial literacy and investment advisor	(Stålnacke, 2019) (Kramer, 2016) (Calcagno et al., 2017) (Davydov et al., 2021) (Carmel et al., 2015)
4.	Impact of financial literacy on retirement investment	(Clark et al., 2017) (Gamble et al., 2015) (Foster et al., 2015)
5.	Impact of financial literacy on investment sources/choices	(Hermansson et al., 2022) (Jappelli and Padula, 2015) (Bianchi, 2018) (da Silva et al., 2021) (Fort et al., 2016) (van Rooij et al., 2012) (Lachance, 2014) (Brau et al., 2019)

Source: Author's Compilation

CONCLUSIONS

The systematic review for financial literacy determined the criterion of publication during the past 10 years (2012-2021). Cogent Economics and Finance show greater chances of publication of articles in the area of financial literacy and investment. The study also shows the highest number of author/s contributions in published articles is three. Financial literacy plays a great role in the success of an investor. The study also represents the features of systematically reviewed articles. The study showed the tools and techniques followed by the previous authors. The review of the study also represented the objectives, variables, findings and practical implications of the articles. The outcomes of the area of studies on financial literacy and investor are into the association between financial literacy and investment and they have been categorized into 5 different categories.

From the study, it is analysed that the scope of research on financial literacy and investment is anticipated to grow in the coming future as the trend of publications of previous articles shows higher publications in 2015 and 2021. The motive of doing a systematic literature review is to help researchers in acknowledging the trends in the field of financial literacy and investors' research to improve their investment decision-making power.

In the end, this study provides various suggestions to future researchers. First, the research is fully based on quantitative data that future researchers can fulfil this gap. Second, the research considered only articles for the study no books, magazines, or conference papers were considered. Third, future researchers can consider factors influencing financial literacy among investors. Fourth, the study considered only open-access data, further researchers can also go for closed-access articles. Fifth, the study included limited subject areas i.e., Economics, Business, Finance, Management and Accounting, future researchers can add other subjects as well. Sixth, last but not the least, the study covers only 10 years of review articles. Therefore, the period of the study can be expanded.

Author Contributions: Conceptualization, R.M., A.M. and V.S.; Methodology, R.M.; Software, R.M.; Validation, R.M., A.M. and V.S.; Formal Analysis, R.M., A.M. and V.S.; Investigation, R.M., A.M. and V.S.; Resources, R.M., A.M. and V.S.; Data Curation, R.M.; Writing – Original Draft Preparation, R.M., A.M. and V.S.; Writing – Review & Editing, R.M., A.M. and V.S.; Visualization, R.M., A.M. and V.S.; Supervision, V.S.; Project Administration, R.M. and A.M.; Funding Acquisition, R.M., A.M. and V.S. Authors have read and agreed to the published version of the manuscript.

Institutional Review Board Statement: Ethical review and approval were waived for this study, due to that the research does not deal with vulnerable groups or sensitive issues.

Funding: The authors received no direct funding for this research.

Acknowledgments: Not Applicable.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Data Availability Statement: The data presented in this study are available on request from the corresponding author. The data are not publicly available due to restrictions.

Conflicts of Interest: The authors declare no conflict of interest.

REFERENCES

Agyei, S. K. (2018). Culture, financial literacy, and SME performance in Ghana. *Cogent Economics & Finance*, *6*(1), 1463813. https://doi.org/10.1080/23322039.2018.1463813

Ahmad, I., & Ahmad, S. (2018). Multiple skills and medium enterprises' performance in Punjab Pakistan: A pilot study. *The Journal of Social Sciences Research, Special*, (4), 44-49. https://doi.org/10.32861/jssr.spi4.44.49

Ahmad, I., & bin Ahmad, S. (2019). The Mediation Effect of Strategic Planning on the Relationship between Business Skills and Firm's Performance: Evidence from Medium Enterprises in Punjab, Pakistan. Año 35, Regular No 24, 746–778.

Azmi, N. F., Mohamad, S. R., Hasan, H., Deraman, S. N. S., Abdullah, T., Abdullah, S. S., & Hashim, N. A. A. N. (2020). Analysis of the Relation between Financial Literacy and Entrepreneur. *International Journal of Engineering Research and Technology*.

Bianchi, M. (2018). Financial Literacy and Portfolio Dynamics. *Journal of Finance*, 73, 831–859. https://doi.org/10.1111/jofi.12605

Brau, J.C., Holmes, A.L., & Israelsen, C.L. (2019). Financial Education Association Financial Literacy among College Students. *Journal of Financial Education*, 45, 179–205. https://doi.org/10.2307/48632887

Briner, R.B., & Denyer, D. (2012). Systematic Review and Evidence Synthesis as a Practice and Scholarship Tool, in: The Oxford Handbook of Evidence-Based Management. *Oxford University Press*. https://doi.org/10.1093/oxfordhb/9780199763986.013.0007

Calcagno, R., Giofré, M., & Urzì-Brancati, M.C. (2017). To trust is good, but to control is better: How investors discipline financial advisors' activity. *Journal of Economic Behavior and Organization*, 140, 287–316. https://doi.org/10.1016/j.jebo.2017.04.010

Carmel, E., Carmel, D., Leiser, D., & Spivak, A. (2015). Facing a biased adviser while choosing a retirement plan: The impact of financial literacy and fair disclosure. *Journal of consumer affairs*, *49*(3), 576-595.

Çera, G., Khan, K.A., Mlouk, A., & Brabenec, T., (2021). Improving financial capability: the mediating role of financial behaviour. Economic Research-Ekonomska *Istrazivanja*, 34, 1265–1282. https://doi.org/10.1080/1331677X.2020.1820362

Clark, R., Lusardi, A., & Mitchell, O.S. (2017). Financial knowledge and 401(k) investment performance: A case study. *Journal of Pension Economics and Finance*, 16, 324–347. https://doi.org/10.1017/S1474747215000384

da Silva, P. P., Mendes, V., & Abreu, M. (2022). The disposition effect among mutual fund participants: a re-examination. *The European Journal of Finance*, *28*(12), 1237-1256.

Davydov, D., Khrashchevskyi, I., & Peltomäki, J. (2021). Investor attention and portfolio performance: what information does it pay to pay attention to? *European Journal of Finance*, 27, 1740–1764. https://doi.org/10.1080/1351847X.2021.1911823

Duwal, S. R. (2021). A Systematic Review of Dividend Policy in Relation to Stock Price, I*nternational Research Journal of Management Science*, *6*(1), 92-104.

Fort, M., Manaresi, F., & Trucchi, S. (2016). Adult financial literacy and households' financial assets: the role of bank information policies. *Economic Policy*, *31*(88), 743-782. https://doi.org/10.2307/26566861

Foster, F. D., Ng, J., & Wee, M. (2015). Presentation format and financial literacy: accessibility and assessability of retirement savings statements. *Journal of Consumer Affairs*, *49*(3), 519-549.

Gamble, K. J., Boyle, P. A., Yu, L., & Bennett, D. A. (2015). Aging and financial decision making. *Management Science*, *61*(11), 2603-2610. https://doi.org/10.1287/mnsc.2014.2010

Gargano, A., & Rossi, A. G. (2018). Does it pay to pay attention?. *The Review of Financial Studies*, *31*(12), 4595-4649. https://doi.org/10.1093/rfs/hhy050

Giofré, M. (2017). Financial education, investor protection and international portfolio diversification. *Journal of international money and finance*, *71*, 111-139. https://doi.org/10.1016/j.jimonfin.2016.11.004

Graña-Alvarez, R., Lopez-Valeiras, E., Gonzalez-Loureiro, M., & Coronado, F. (2022). Financial literacy in SMEs: A systematic literature review and a framework for further inquiry. *Journal of Small Business Management*, 1-50. https://doi.org/10.1080/00472778.2022.2051176

Guiso, L., Viviano, E., 2015. How much can financial literacy help? *Review of Finance*, 19, 1347–1382. https://doi.org/10.1093/rof/rfu033

Hermansson, C., Jonsson, S., & Liu, L. (2022). The medium is the message: Learning channels, financial literacy, and stock market participation. *International Review of Financial Analysis*, *79*, 101996. https://doi.org/10.1016/j.irfa.2021.101996

Jappelli, T., & Padula, M. (2015). Investment in financial literacy, social security, and portfolio choice. *Journal of Pension Economics and Finance*, 14, 369–411. https://doi.org/10.1017/S1474747214000377

Jin, J., Kanagaretnam, K., Liu, Y.I., & Cheng, M. (2021). Does Citizens' Financial Literacy Relate to Bank Financial Reporting Transparency? *European Accounting Review*, 30, 887–912. https://doi.org/10.1080/09638180.2021.1965897

Kim, D. (2015). Depositor Runs and Financial Literacy.

Kramer, M. M. (2016). Financial literacy, confidence and financial advice seeking. *Journal of Economic Behavior & Organization*, *131*, 198-217. https://doi.org/10.1016/j.jebo.2016.08.016

Lachance, M. E. (2014). Financial literacy and neighborhood effects. *Journal of Consumer Affairs*, *48*(2), 251-273.

Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *American Economic Journal: Journal of Economic Literature*, *52*(1), 5-44. https://doi.org/10.1257/jel.52.1.5

Lusardi, A., Mitchell, O.S., Alesina, A., Alessie, R., Botticini, M., Campbell, J., Caplin, A., Chan, S., Engelhardt, G., Gustman, A., Hurd, M., Kapteyn, A., Mastrogiacomo, M., Ofstedal, M.B., Rodgers, W., Snyder, C., van Rooij, M., van Soest, A., Helpful, S.U., Washington, G., 2011. NBER WORKING PAPER SERIES FINANCIAL LITERACY AND PLANNING: IMPLICATIONS FOR RETIREMENT WELLBEING Financial Literacy and Planning: Implications for Retirement Wellbeing.

Mehboob, F., & Othman, N. (2020). Examining the links leading to behavioral support for change: An expectancy theory perspective. *International Journal of Social Sciences and Economic Review*, *2*(4), 1-08. https://doi.org/10.36923/ijsser.v2i4.78

Meier, S., & Sprenger, C.D. (2013). Discounting financial literacy: Time preferences and participation in financial education programs. Journal of Economic Behavior and Organization 95, 159–174. https://doi.org/10.1016/j.jebo.2012.02.024

Moher, D., Liberati, A., Tetzlaff, J., Altman, D. G., & PRISMA Group*, T. (2009). Preferred reporting items for systematic reviews and meta-analyses: the PRISMA statement. *Annals of internal medicine*, *151*(4), 264-269. https://doi.org/10.1136/bmj.b2535

Moreno-Montes De Oca, I., Snoeck, M., Reijers, H.A., Rodríguez-Morffi, A., 2015. A systematic literature review of studies on business process modeling quality. *Information and software technology*, *58*, 187-205.https://doi.org/10.1016/j.infsof.2014.07.011

Mudzingiri, C., Muteba Mwamba, J.W., & Keyser, J.N. (2018). Financial behavior, confidence, risk preferences and financial literacy of university students. *Cogent Economics and Finance,* 6, 1–25. https://doi.org/10.1080/23322039.2018.1512366

Murugiah, L. (2016). The level of understanding and strategies to enhance financial literacy among Malaysian. *International Journal of Economics and Financial Issues*, *6*(3), 130-139.

Nguyen, T.A.N., Nguyen, K.M., 2020. Role of financial literacy and peer effect in promotion of financial market participation: Empirical evidence in Vietnam. Journal of Asian Finance, Economics and Business 7, 1–8. https://doi.org/10.13106/JAFEB.2020.VOL7.NO6.001

Noor, N., Batool, I., & Arshad, H. M. (2020). Financial literacy, financial self-efficacy and financial account ownership behavior in Pakistan. *Cogent Economics & Finance*, *8*(1), 1806479. https://doi.org/10.1080/23322039.2020.1806479

Okello Candiya Bongomin, G., Munene, J. C., & Yourougou, P. (2020). Examining the role of financial intermediaries in promoting financial literacy and financial inclusion among the poor in developing countries: Lessons from rural Uganda. *Cogent Economics & Finance*, *8*(1), 1761274. https://doi.org/10.1080/23322039.2020.1761274

Organisation for Economic Co-operation and Development., 2013. PISA 2012 assessment and analytical framework: mathematics, reading, science, problem-solving and financial literacy. OECD.

Pahlevan-Sharif, S., Mura, P., & Wijesinghe, S. N. (2019). A systematic review of systematic reviews in tourism. *Journal of Hospitality and Tourism Management*, *39*, 158-165. https://doi.org/10.1016/j.jhtm.2019.04.001

Pangestu, S., & Karnadi, E. B. (2020). The effects of financial literacy and materialism on the savings decision of generation Z Indonesians. *Cogent Business & Management*, *7*(1), 1743618. https://doi.org/10.1080/23311975.2020.1743618

Rahadi, R. A., Danella, J., & Okdinawati, L. (2019). The Correlation between Financial Literacy and Family Wealth Distribution in Bandung. *European Journal of Business and Management Research*, *4*(2). https://doi.org/10.24018/ejbmr.2019.4.2.34

Reddy, K. S., & Mahapatra, M. S. (2017). Risk tolerance, personal financial knowledge and demographic characteristics-evidence from India. *The Journal of Developing Areas*, *51*(3), 51-62. https://doi.org/10.2307/26416932

Stålnacke, O. (2019). Individual investors' information use, subjective expectations, and portfolio risk and return. *The European Journal of Finance*, *25*(15), 1351-1376. https://doi.org/10.1080/1351847X.2019.1592769

Tranfield, D., Denyer, D., & Smart, P. (2003). Towards a methodology for developing evidence-informed management knowledge by means of systematic review. *British journal of management*, *14*(3), 207-222.

Vaarmets, T., Liivamägi, K., & Talpsepp, T. (2019). How does learning and education help to overcome the disposition effect?. *Review of Finance*, *23*(4), 801-830. https://doi.org/10.1093/rof/rfy006

Van Rooij, M. C., Lusardi, A., & Alessie, R. J. (2012). Financial literacy, retirement planning and household wealth. *The Economic Journal*, *122*(560), 449-478.