

The Rise of Intelligent Finance : A SPAR-4-SLR Approach in Exploring the Role of AI in Enhancing Financial Planning and Financial Literacy

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Abstract

Purpose : In this study, we presented a systematic literature review of how artificial intelligence (AI) and financial technology (FinTech) have converged with the concept of financial literacy, financial inclusion, and its planning.

Methodology : A total of 879 papers were extracted from the Scopus database for the period 2010 to 2025, and after refinement using SPAR-4-SLR, we identified 54 articles. To have a clear understanding and to trace the intellectual development of the literature in this area, we applied the ADO-TCM framework.

Findings : There is a clear progression of trends in this domain. Earlier studies were based on basic theories, and subsequent work has applied models such as TAM, UTAUT, and the diffusion of innovation to capture technology acceptance. A significant portion of the literature is inclined toward institutional and systemic perspectives, including agency theory, human capital, and risk management. Despite this theoretical richness, methodologies remain limited, with survey and experimental studies dominating, while longitudinal, comparative, and mixed-method approaches are scarce.

Practical Implication : It has been noted that there is a deficiency of literature in the developing economies, which shows a major gap in the literature, and more critical consideration is required. A broader theoretical integration, methodological diversification, and greater attention to the underrepresented context are required for strengthening the future of AI-driven financial literacy research.

Originality : This research provided a new dimension to look at the literature development in this area. Additionally, the model which is used in this paper is most suitable to give a rigorous view of every element and variable used in the literature.

Keywords : financial literacy, financial planning, AI, artificial intelligence, SLR, robo-advisor, chatbots

JEL Classification Codes : C88, D83, G41, G53

Paper Submission Date : November 5, 2025 ; **Paper sent back for Revision :** November 15, 2025 ; **Paper Acceptance Date :** November 25, 2025

In recent times, the adoption of tools such as robo-advisors, chatbots, machine learning (ML), and many more has improved the automation in finance. It contributes to making an individual's plans more effective and efficient (Philippas & Avdoulas, 2020). This automation plays an important role in economic development and empowers individuals, and hence, national prosperity is also facilitated by incorporating artificial intelligence (AI) in financial planning (Braun & Chandler, 1987; Philippas & Avdoulas, 2020). The emergence of

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innovation in financial services with the integration of technologies has had a positive impact on both robust financial planning and powerful money management practices (Afjal, 2023; Oehler et al., 2022; Philippos & Avdoulas, 2020). Widespread adoption of the technologies has increased the efficiency of each and every sector, be it primary, secondary, or service-oriented tertiary sectors (Singh, Shrivastav, et al., 2024).

The incorporation of AI-powered tools introduced a new level of automation in finance that can streamline the process and also provide personalized insights (Afjal, 2023). In particular, we can say that integrating AI has changed the landscape of financial planning. This automation, in turn, improved individuals in formulating and adhering to the most important decisions, which are planning of finances, as well as making them effective in achieving the monetary objectives, and also significantly improved efficiency in the execution and management (Kass-Hanna et al., 2022). Jünger and Mietzner (2020) have clearly shown how a continuous evolution of AI and adaptive financial strategies for both individuals and institutions has improved in the same way that may lead to even better planning.

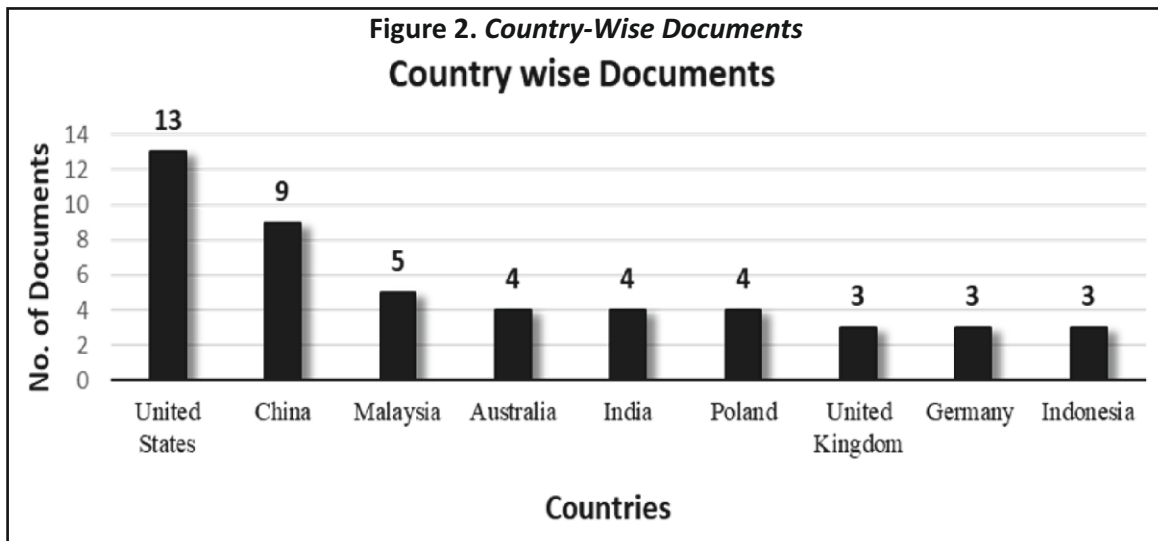
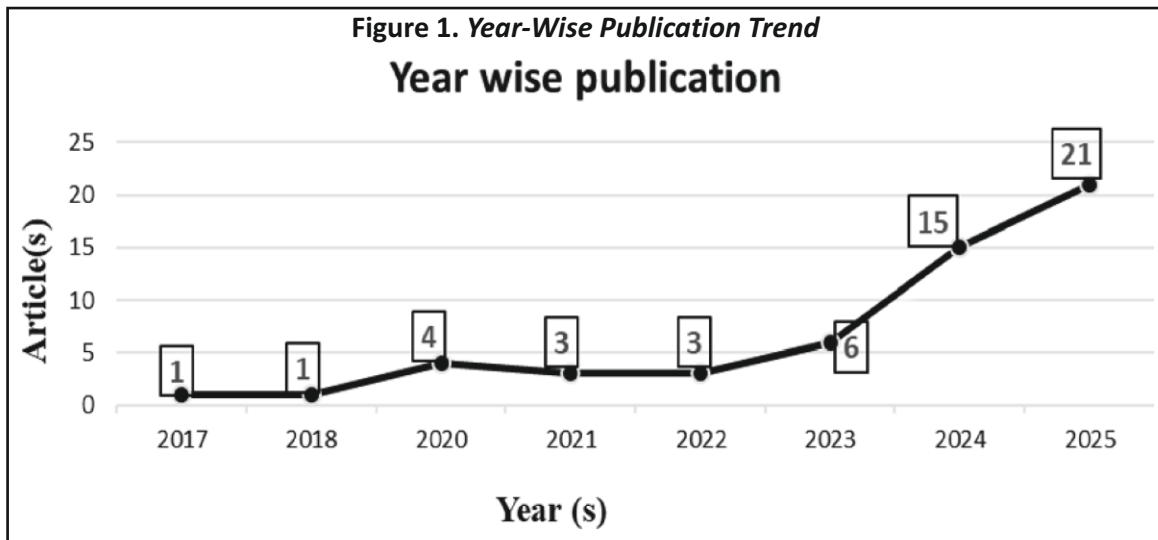
This systematic literature review (SLR) examines how AI-driven financial literacy and inclusion within FinTech and personal finance are achieved by synthesizing existing research across countries. Specifically, this review aims to (a) identify and categorize the dominant themes and methodologies used in this domain, (b) highlight underexplored areas and inconsistencies in the literature, and (c) develop an integrative framework/agenda that addresses and identifies research gaps and guides future scope. These objectives are considered very carefully and addressed systematically to get a clearer picture of the literature in this domain.

This study is relevant as it captures and reports the growing development of research on AI, ML, and robo-advisors in the planning of finance and financial literacy (Cuadros Carrion et al., 2025; Jain et al., 2026; Rossi & Utkus, 2024). Despite having the momentum in this field, existing research is still scattered, with limited integration of insights in theory, context, and methods. With an SLR, this study consolidates fragmented knowledge and advances the discussion through the development of an integrative ADO-TCM framework (Changaranchola & Samantara, 2025; Paul et al., 2021). For doing this, the study provides a comprehensive synthesis of prevailing themes that uncovers inconsistencies and gaps, and outlines future research that can benefit academicians, policymakers, and practitioners in enhancing financial literacy and inclusion, leveraging AI technologies in this field (Hidayat-ur-Rehman, 2025).

For the purpose of doing SLR, we have followed the review process of the Scientific Procedures and Rationales for Systematic Literature Reviews (SPAR-4-SLR) protocol, which provides a structured roadmap for the identification, screening, arranging, and reporting of relevant studies. To deepen the analysis, the selected body of literature is examined through the combination of the antecedents-decisions-outcomes (ADO) and the theory-context-methodology (TCM) framework (Paul et al., 2021). While the SPAR-4-SLR method ensures rigor and transparency in study selection and reporting, the ADO-TCM enables the classification of themes, theoretical foundations, contexts, and methodological choices. Hence, the selection of these methodological perspectives makes this study fit for the addition of knowledge in this field.

This study considered the data collection from 2010 to 2025. Figure 1 shows that the trend in the development of literature specifically related to financial literacy and financial planning using AI, ML, robo-advisors, and chatbots has emerged from 2017; however, at the initial phase, there were a few papers published related to this domain, but after 2023 it gained traction and now this theme is growing vastly with steeper graph, if we see the year-on-year increase in the trend in 2024 it increased almost 2.5 times than 2023 and in 2025 it is almost 3.5 times in comparison to 2023. Many more papers will be published this year. In 2019, there were no documents published in this domain due to the global pandemic.

Figure 2 illustrates the distribution of research output across different nations. The United States emerges as the most dominant contributor with 13 documents, followed by China with 9, indicating their leading role in this domain. Malaysia contributes moderately with 5 documents, while Australia, India, and Poland each account for 4 documents. The United Kingdom, Germany, and Indonesia record the least contributions, with only 3



documents each. Looking at the distribution of literature among countries, we can say that the majority of research originates from a few developed countries, while many others remain underrepresented, which points to an imbalance in global research participation in this field. Although this graph shows countries engaged in the contribution of literature in this domain, there are still a few papers available that show a gap and a need for more contributions in the literature.

Methodology

This study employed the SLR protocol using Scopus as the sole database. The review focused on the convergence of AI, financial technology (FinTech), and financial literacy, inclusion, and planning.

A carefully designed Boolean search was conducted in Scopus, covering the period from 2010 to August 31, 2025, as part of the identification and search strategy. The search string applied to *TITLE-ABS-KEY* was: ((“financial literacy” OR “financial education” OR “financial planning” OR “financial access” OR “personal finance”) AND (“AI” OR “artificial intelligence” OR “machine learning” OR “Robo advisor” OR “fintech” OR “chatbot”)).

The search initially returned 879 records.

For screening and refinement, the SPAR-4-SLR framework proposed by Paul et al. (2021) was used, and out of the initial search results, a total of 825 articles were excluded. Specifically, based on non-journal sources ($n = 439$), unrelated subject areas ($n = 177$), non-English papers ($n = 1$), duplicate records ($n = 9$), and conceptually irrelevant studies ($n = 199$). A total of 54 articles were retained for full-text review, and all met the inclusion criteria.

Eligibility and inclusion criteria were defined as follows: Only peer-reviewed Scopus-indexed journal articles published in English were included. Studies had to explicitly address financial literacy, financial education, financial access, or personal finance planning, and incorporate an AI/ML-based tool, such as a robo-advisor, chatbot, or FinTech application, as part of the intervention or the analytical framework. Data extraction and organization were then conducted accordingly. Each article was coded following a hybrid ADO and TCM framework (Paul et al., 2024). To synthesize insights, an agenda proposal method was used that enabled the identification of gaps and the formation of future research directions.

SPAR-4-SLR was selected over Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) to ensure a balance between systematic rigor and conceptual depth in this study (Lim et al., 2021). Although PRISMA is a well-established guideline for systematic reviews, its origins lie primarily in the health and medical sciences, but it is less adaptable when applied to reviews in business, finance, or interdisciplinary domains such as AI and Fintech (Changaranchola & Samantara, 2025). SPAR-4-SLR framework is particularly designed for management and social science research. This framework ensures systematic rigor and also focuses on conceptual mapping, theory development, and builds an agenda for such research.

Three Segments of SPAR-4-SLR

Assembling

This is the first step in this approach, wherein a transparent procedure is adopted to gather all the relevant studies. Considering this study, the Scopus database was used with a Boolean search keyword, and the time period was set from 2010 to 2025. Only peer-reviewed journal articles with rigorous methods were considered to conduct this study (Figure 3).

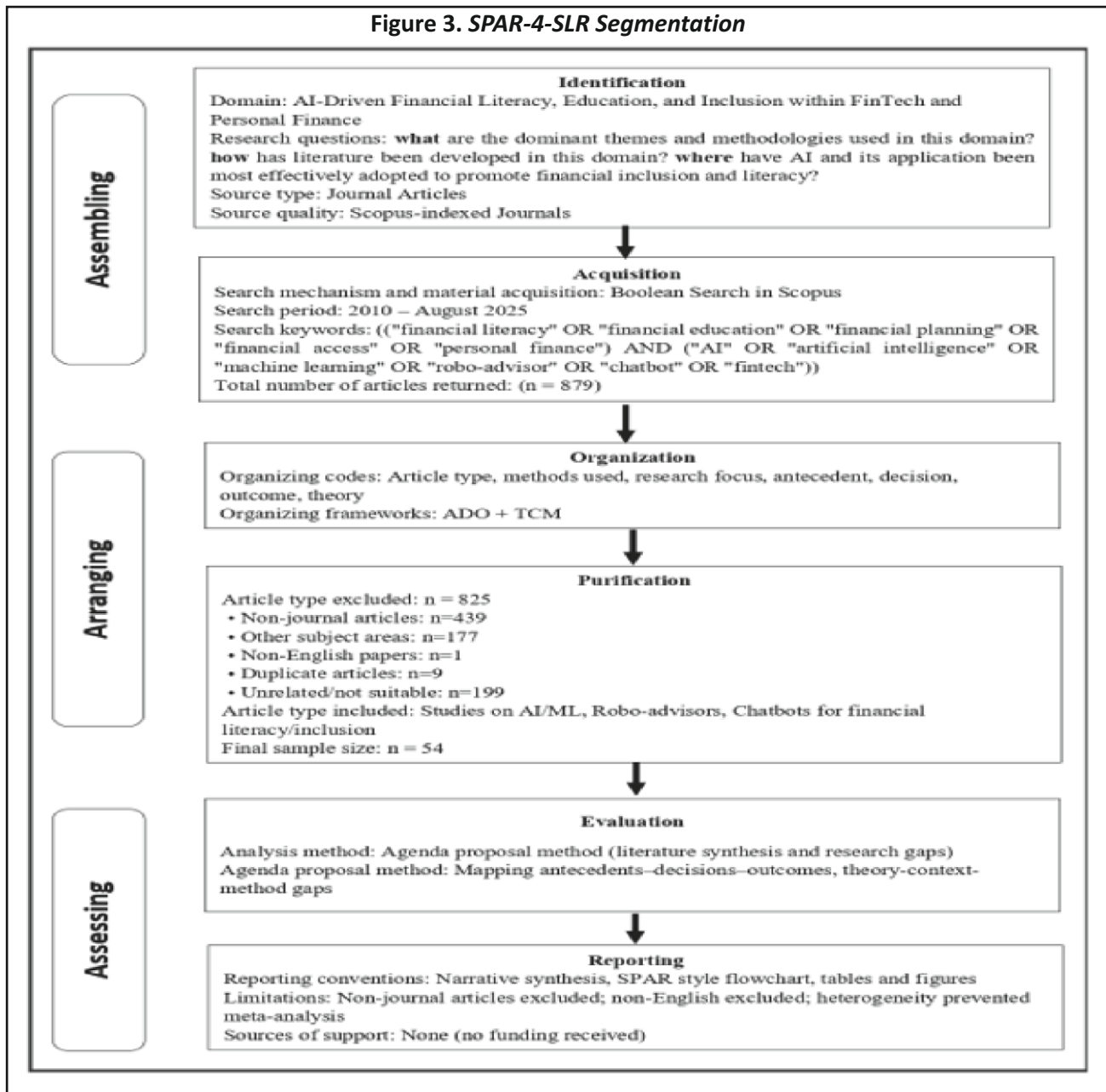
Arranging

After the extraction of the dataset, all the literature was classified and organized using a structured framework. To organize all the literatures the basis has been identified as the type of article, methods used, research focuses, and additionally, all the characteristics have been identified using the ADO-TCM framework. This arrangement has helped in identifying the thematic patterns and methodological trends across studies.

Assessing

This is the last and final stage of this framework, wherein the quality and relevance of the studies have been taken into consideration. For the purpose of assessing the literature, we consider a six-item checklist, including antecedents, decisions, outcomes, theory, context, and methods. Identifying these has given a clear picture of all the potential research gaps and opportunities for future inquiry into this field.

Figure 3. SPAR-4-SLR Segmentation



Findings and Discussion

What is Known to Us?

The main question that has been identified here is “what do we know about the use of artificial intelligence pertaining to this domain? To gain a deeper understanding of how AI and FinTech applications influence financial literacy and inclusion, we applied the ADO framework (Changaranchola & Samantara, 2025; Lim et al., 2021). This approach is particularly useful in doing SLR as it enables the mapping of research in a structured manner by highlighting the factors that trigger financial challenges (antecedents), the actions or technological interventions taken in response (decisions), and the resulting consequences or impacts (outcomes). With the application of this

framework, the review moves beyond a descriptive synthesis of literature to provide a more analytical perspective, identifying not only what has been studied but also why certain interventions emerged and how effective they have been in practice.

Antecedents of Financial Literacy and Planning Using AI

The initial conditions, drivers, or problem contexts that trigger the need for decision-making (Table 1) in using AI-powered robo-advisors, chatbots, or ML for financial literacy and planning, or management of funds at the individual and societal levels are antecedents (Sunil & Kumar, 2025). All the empirical studies have correctly identified the antecedents in this domain. For the purpose of having a clear idea of the antecedents, we have divided them into four clusters based on their characteristics. (a) knowledge gaps: “low financial literacy, lack of information transparency, poor financial knowledge, poor decision-making, knowledge constraints” (Carl et al., 2024; Ullah et al., 2024; Zhu, 2024), (b) behavioral biases: “reluctance due to overconfidence, confirmation bias, hindsight bias, lower interest in safe investments, detrimental investment decisions,

Table 1. Some of the Key Concepts of the ADO-TCM Framework ("Antecedents, Decision, Outcome" & "Theory, Context, Method") in a Structured Manner to Facilitate an Easy Understanding of the Development of Literature in this Area

Framework Dimension	Purpose (Why/Where/How)	Key Elements Included
1. Theory	Explains underlying behavioral and adoption logic (The Why)	• Modern Portfolio Theory (Risk-Return & Asset Allocation) • Prospect Theory (Risk Perception & Loss Aversion) • Technology Acceptance Model (TAM) / UTAUT (AI Adoption) • Theory of Planned Behavior (Attitude, Social Norms, Intention)
2. Context	Defines study boundaries and setting (The Where/Who)	• Indian Financial Market (NSE, BSE, SEBI regulations) • Demographic Segments (Gen Z, rural vs urban, first-time AI users) • Robo-Advisory Platforms • Emerging vs. Developed Market Comparison
3. Methods	Research tools and analytical approach (The How)	• Machine Learning / Reinforcement Learning (Dynamic Risk Profiling) • Sentiment Analysis using NLP (News & Social Media) • Longitudinal/Mixed-Method • Surveys & Structural Equation Modeling (SEM)
4. Antecedents	Pre-decision influencing factors (The Inputs)	• Financial Literacy Level • Algorithm Appreciation or Aversion • Data Quality & Availability (Indian datasets) • Perceived Financial Risk
5. Decision	Core action or behavioral choice (The Action)	• Adoption of AI Advisory vs. Human Advisor • Portfolio Rebalancing based on RL Signals • AI-driven Information Search & Learning
6. Outcomes	Consequences and measurable results (The Results)	• Financial Wellbeing (Savings & Returns) • Portfolio Performance (Sharpe Ratio, Alpha) • User Trust & Loyalty toward AI Tools • Risk Mitigation during Market Volatility

complexity, risk” (Bai, 2024; Hasan et al., 2023; Litterscheidt & Streich, 2020), (c) institutional challenges: “challenges with data management, limited capital, and challenges in assessing creditworthiness, fear of financial fraud, regulatory and institutional inefficiencies” (Cuadros Carrion et al., 2025; Huang et al., 2024; Mohapatra et al., 2026; Salas-Velasco, 2023), and (d) demographic risks: “longevity risk due to aging population, high medical costs, less wealthy households facing detrimental decisions” (Alonso et al., 2025; Gan et al., 2021; Waliszewski & Warchlewska, 2020; Xue et al., 2021).

By categorizing antecedents into four thematic clusters identified in the literature that have been considered important for this study, we have shown a multi-level set of drivers behind financial decision-making problems. All these cluster provides a strong base that links the use of AI tools and robo-advisors in financial planning, which helps in better financial decisions and makes people financially literate for adopting robust planning of funds (Kotishwar, 2020).

Decisions

Decisions are strategies or actions that are taken to intervene and address antecedents (Table 1). This literature review clearly shows a variety of variables with which interventions and strategic solutions are taken to counter the antecedents that are found in this field (Linge et al., 2024; Lohan et al., 2023). To interpret and analyze these findings, the variables considered to make decisions are carefully sorted into four distinct categories. With this classification, we can understand and examine the studies in an organized way and can build a deeper insight into the effectiveness and suitability in this area.

Technological Integration in Finance

Lewis (2018), Litterscheidt and Streich (2020), and Piehlmaier (2022) clearly showed that adopting technology has increased significantly, with a focus on digital tools. These tools are widely used in investment advice and digital asset management. Beyond investment, they are applied in other broader areas such as credit risk evaluation, fraud detection, and more (Hasan et al., 2023). Moreover, chatbots and GPT are explored as a decision-making system in enhancing financial literacy (Niszczoła & Abbas, 2023).

Enhancing Transparency and Information Access

Increasing transparency in consumer credit offerings is the main focus area to enhance the accessibility of reliable information to consumers (Frączek, 2020). Now the primary goal is to reduce information asymmetry that will definitely empower consumer awareness and make well-informed decisions related to credit and investment (Cuadros Carrion et al., 2025; Joseph et al., 2023).

Strategic and Institutional Adaptations

There are significant strategic and management shifts in financial institutions when FinTech is integrated with insurance (Didenko & Sidelnik, 2021; Mohapatra et al., 2025; Nkwini & Akinola, 2023). Promoting innovation in insurance, capital management, and adopting systemic approaches in technology adoption are included in this.

Educational and Behavioral Initiatives

To strengthen financial literacy as well as planning, technological advancements should also be incorporated in

education, which will enhance financial awareness (Salas-Velasco, 2023). Financial education is seen as an important component alongside AI adoption; it ensures that users can effectively interact with this advanced system of technologies (Gupta et al., 2025; Singh et al., 2023). The identification and categorization of the decision points clearly illustrate how the antecedents (problems) have been resolved using AI-powered robo-advisors, chatbots, and technological integration in enhancing financial literacy and its planning.

Outcomes

Outcomes show the relationship between antecedents and decisions (Table 1) and highlight the different spectrum of interventions involving AI, ML, and robo-advisors. The outcome in this study ranges from operational efficiency and cost reductions to the enhancement of customer experiences, as well as the creation of novel financial products, services, and new inventions. It also helps in improving financial behavior and portfolio optimization of individuals. For understanding each aspect of the outcome, we have categorized it into four themes.

Behavioral and Cognitive Outcomes

Outcomes have shown a reduction of behavioral biases and improvements in educational attainment (Bayakhmetova et al., 2025; Jose et al., 2022), and overconfidence leads to a reluctance to seek advice (Lewis, 2018). Mitigating confirmation and hindsight biases results in optimized decision-making (Athota et al., 2023; Hasan et al., 2023). With this, we can clearly see the demonstration of how AI tools influence financial behavior, reduce biases, and affect confidence levels during decision-making.

Financial Performance and Customer Satisfaction

Numerous studies emphasize outcomes linked to improved financial results and increased satisfaction. For example, Khongwir and Sharmiladevi (2023) and Litterscheidt and Streich (2020) mentioned that enhanced portfolio diversification can better manage risk, and it is beneficial of risk averse investors. Then, Waliszewski and Warchlewska (2020) highlighted that robo-advisors have improved operational efficiency and consumer satisfaction. In turn, this leads to higher levels of financial satisfaction, expanded stock ownership, and increased total amounts invested in stocks and bonds (Oehler et al., 2022; Piehlmaier, 2022). These outcomes highlight how FinTech tools enhance investment strategies and overall satisfaction that measures financial improvements and illustrates them.

Knowledge and Literacy Advancement

AI and FinTech interventions often aim to boost financial literacy and the acquisition of knowledge. This also helped in getting informed credit decisions and the development of a prototype system to facilitate this (Frączek, 2020; Salas-Velasco, 2023). Improvements in economic knowledge have improved the management of student loans, enhanced the financial literacy scores, and improved advice-utilization metrics with GPT (Niszczoła & Abbas, 2023). Additionally, these advancements help individuals better understand and manage personal finances, with technology in education playing a key role in these improvements.

Institutional and System-Wide Effects

Outcomes that extend beyond the individuals to also focus on institutional stability and innovation across entire

systems. Innovative approaches, such as ML for forecasting and deep learning, have also made a greater impact (Didenko & Sidelnyk, 2021; Tara & Singh, 2015). In the work of Gan et al. (2021) and Nkwinika and Akinola (2023), they demonstrate how to achieve financial stability and sustainability. Factors influencing system adoption include effort expectancy, which affects the likelihood of adoption.

These outcomes demonstrate that AI-driven solutions not only address individual decision-making challenges but also contribute to broader educational, financial, and institutional advancements, thereby reinforcing the transformative role of technology in financial literacy and inclusion.

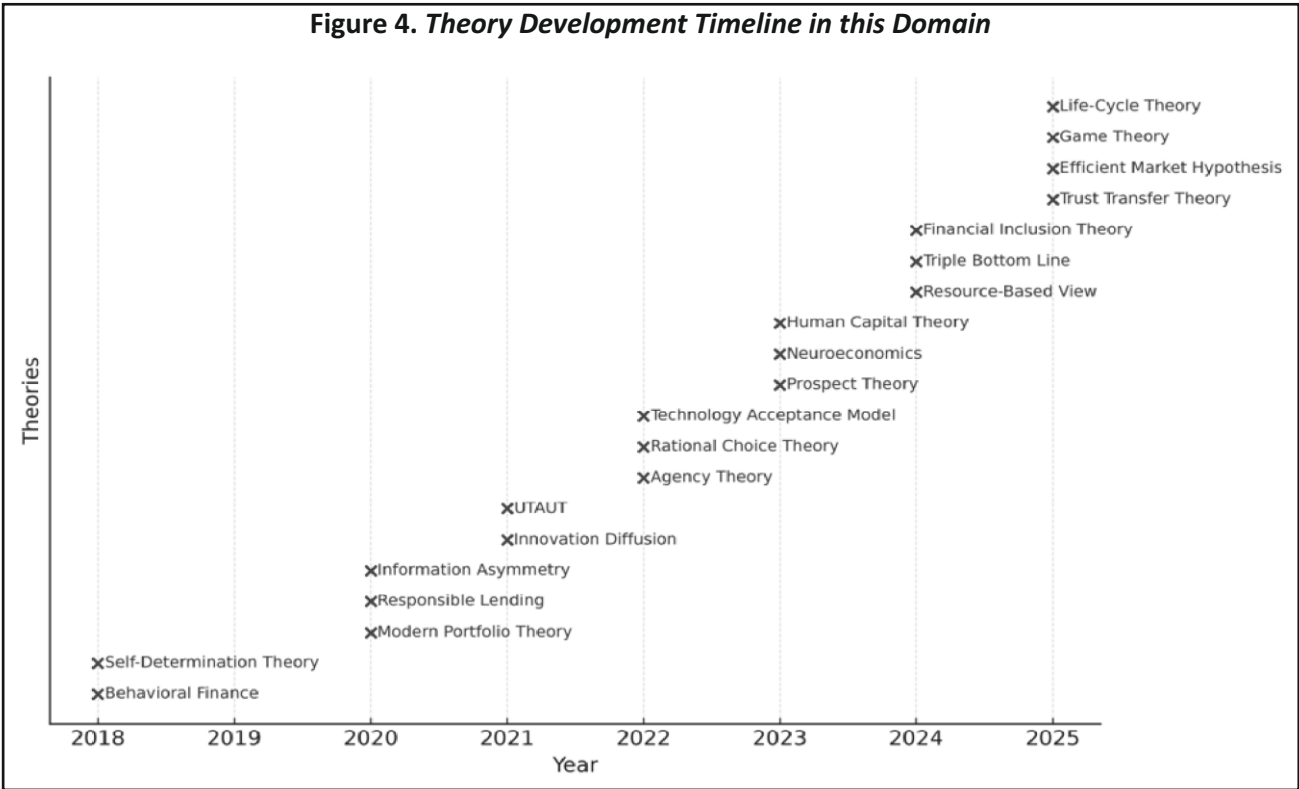
Conceptual Framework

How is it known?

Theory

We can understand the development of the body of literature with the help of theories used in the literature (Table 1 & Figure 4) because it allows us to see the multifaceted nature of financial literacy in a digital era (Ajibade et al., 2024; Dash & Mohanta, 2025). As technology continues to reshape financial systems, incorporating theories from psychology, sociology, innovation, and institutional studies helps us to better interpret how individuals adopt, adapt, and respond to new tools and platforms (Chen, 2025; Yang & Stivers, 2024). Theories make significant contributions to research by providing foundational structures, explaining phenomena, guiding methodologies, and identifying future research directions, often leading to practical implications across various fields, especially in finance and technology (Lewis, 2018).

Figure 4 shows that an early foundation for AI in financial literacy was addressed in 2018 through “behavioral



finance, self-determination theory, and portfolio perspective,” integrating psychological aspects of finance. In 2019, there is no literature available related to this area. Focus on “responsible lending, information asymmetry, and modern portfolio theory,” considered in 2020 to highlight rationality limits and digital finance tensions. In 2021, there was a shift toward adopting theories such as innovation diffusion, technology adoption theory, and UTAUT, supported primarily by quantitative methods. In 2022 and 2023, technological acceptance perspectives were renewed, introducing theories such as agency theory, rational choice theory, prospect theory, and bounded rationality in digital decision-making. In 2024, a sustainability-focused approach was introduced in this domain with the help of “resource-based view, triple bottom line, and financial inclusion theory.” In 2025, there is an advanced maturity in the field, with theories such as trust transfer theory, efficient market hypothesis, game theory, and life-cycle theory being applied to demonstrate AI-driven financial applications.

Although the theories developed and grown vastly, and give us an understanding of how literature is growing in this domain, incorporating frameworks that account for trust, cognition, social networks, sustainability, and inclusivity will make future research more comprehensive in understanding the decision-making process. Integration of such theories will ensure the academic enhancement that can address the issues aligned with real-world challenges, such as AI-integrated financial inclusion and responsible technology. It will strengthen the foundation for more innovative, relevant, and policy-oriented contributions in the field.

Context

The diversity of literature (Table 1) in both the developed and emerging economies shows how the scope of financial literacy and AI adoption is influenced by the diversity of cultural, institutional, and market conditions. The global context spans a broad spectrum, covering countries such as Canada, Poland, the United Kingdom, Germany, Spain, Malaysia, India, China, the United States, and various other European nations. In contrast, studies from Asia, including India, Malaysia, and China, prioritize financial inclusion and digital adoption. The literature shows that European and North American countries often focus on robo-advisors, consumer behavior, and portfolio diversification.

Table 2 shows the wide geographical coverage, but significant research gaps persist. Many developing economies in Africa, Latin America, and Southeast Asia are notably underrepresented, even though they face substantial challenges related to low financial literacy and limited access to AI-driven financial tools. Future research should therefore expand beyond traditional markets to include underserved regions, develop cross-country comparative frameworks, and evaluate how local regulations, financial infrastructure, and cultural attitudes impact the adoption and effectiveness of AI-based financial literacy initiatives.

Table 2. Country-Wise Documents and Respective Citations

Country	Documents	Citation
United States	13	102
China	9	16
Malaysia	5	76
Australia	4	70
India	4	20
Poland	4	73
United Kingdom	3	60
Germany	3	87
Indonesia	3	1

Methods Used in the Literature

The methodological perspective on the development of theory becomes important when examining how prominent literature has adopted various research methods. For the purpose of interpreting the methods (Table 1) that have been used by researchers in this perspective, we have made some clusters, and we will try to see how those clusters have contributed to the development of literature in this area.

Quantitative Survey-Based Empirical Studies

Studies by Gan et al. (2021), Oehler et al. (2022), and Waliszewski and Warchlewska (2020) used a survey design with a questionnaire to capture individual characteristics and participants' behavior of investment, which was analyzed through univariate tests of equality (*t*-test). Similarly, Chen (2025), Dewi et al. (2025), Olayiwola et al. (2024), and Ullah et al. (2024) collected data from 338 responses and analyzed it using PLS-SEM to study the influence of digital financial literacy on customer value perception. Cahyono et al. (2025) adopted a deductive approach with a carefully designed survey questionnaire to a representative sample for empirical testing of hypotheses, and that too followed by descriptive statistical analysis. Abdulle et al. (2025) used a quantitative cross-sectional descriptive research design to assess awareness and fintech literacy among females.

Quantitative Empirical Studies (Using Existing Data or Advanced Statistical Modeling)

Piehlmaier (2022) conducted an empirical study that tests a proposed model (Stata SE 16) and introduces a novel method combining the residual approach to construct a latent knowledge indicator. Chhatwani (2022) used data collection by the “national financial capability study” in 2015 and employed OLS and 2SLS regression models for analysis; likewise, Jin and Liu (2025) also used multiple regression analysis to analyze funding constraints faced by small and micro enterprises. Godbole et al. (2025) were involved in analyzing household income distribution and economic behaviors with the “U.S. Bureau of Labor Statistics” to validate a theoretical framework. Cuadros Carrion et al. (2025) combined four sources of public data—Prosper listing data, FDIC, Bank Call Reports, National Credit Union Administration reports, and US Census data—and used panel regression to understand the relationship between P2P borrowings.

Qualitative Studies

Athota et al. (2023) employed a qualitative research method using in-depth interviews with financial planners across two stages, and done the data analysis with thematic analysis. Carl et al. (2024) conducted a qualitative analysis of prompt engineering for large language models (LLMs). It involved content analysis of user prompts and an iterative process of prompt creation, testing, reflection, and coding to explore how non-expert teachers interact with generative AI (Kittipanya-ngam et al., 2025). This qualitative multiple-case study investigates AI adoption in eight Thai SMEs. Data were collected through semi-structured interviews and analyzed using within-case and cross-case analyses (Chen, 2025). This qualitative research employs stimulated dialogues between users and ChatGPT, supplemented with case study analysis, to explore AI's potential applications in the financial services sector (Frączek, 2020; Ray et al., 2022). These studies also include qualitative document analysis, examining virtual consumer credit offers from banks and intermediaries' websites to assess transparency and clarity in financial terms.

Experimental/Performance Testing Studies (Often Involving AI Models)

Various studies evaluate AI models, LLMs like GPT-3.5, GPT-4, GPT-4o, and Google Bard, on financial literacy and investment-related tasks (Niszczoła & Abbas, 2023). Both assess the financial literacy of LLMs, use single-choice questions and an advice-taking task, analyzing results with OLS and beta regression (Xiao & Meng, 2025), and employ established financial literacy test sets via zero-shot prompting, also conducting sensitivity analysis for consistency. Yang and Stivers (2024) conducted an experimental study to test Google Bard and GPT-4 on calculation-based questions from undergraduate finance courses across various difficulty levels, with manual review of solutions. Chiu et al. (2025) involved an empirical analysis using the ChatGPT-3.5-turbo API to assign “buying scores” to stocks mentioned in Taiwanese financial news articles. It then evaluates the subsequent raw and abnormal returns of these stocks to assess GPT's investment recommendation abilities.

Machine Learning/Computational Methodology Studies

Singh, Choubey, et al. (2024) introduced a new computational method for automatically forecasting liquidity. This study uses ML techniques such as Cubist and CART to highlight and process data from various data sources and inputs. There is a case study done with the use of data from a large German manufacturing firm that validates this approach (Zhu, 2025). In this paper, the main focus area was on training supervised ML models that include decision trees, random forests, light gradient boosting machine, and support vector machine. Using features such as financial socialization, parenting, and background variables, the study aimed to predict low financial literacy in youth (Alonso et al., 2025). In this paper, generative AI tools—specifically ChatGPT 4.0—were used to model and experiment with variables influencing the acceptance of Central Bank Digital Currency (CBDC). The responses were generated and subsequently analyzed using statistical tools such as the CHAID model and multinomial logistic regression.

There is significant evidence and foundation for understanding how AI impacts financial literacy, but the studies are bound to specific methodologies. Most studies are done based on cross-sectional surveys and self-reported data, which help develop initial perceptions. These methods may struggle in capturing how AI tools actually make changes in financial habits in the long run or how those findings may vary when applied to a broader, more diverse population. By and large, we can understand the causal relationships and the long-term effects of AI-driven financial tools. Furthermore, some qualitative approaches like case studies and interviews should be taken into consideration to explore and understand the contextual, cultural, and institutional dimensions. There is also an absence of mixed-method and comparative cross-country methodologies; the use of these may develop a holistic view.

Limitations and Future Scope of the Study

This study offers a systematic synthesis of the literature on AI-driven financial literacy, but there are some of the limitations in this study, such as this review solely relying on the Scopus datasets, which may exclude some of the relevant studies that contribute to the literature but are indexed in other databases like Research Scholar or Web of Science (WoS). This review includes only peer-reviewed journals that are published in the English language, which means there may be some of the omissions of significant insights from book chapters, printed journals, conference proceedings, or non-English articles. Additional domains with more keywords can also be integrated to enhance comprehension of the domain.

Conclusion

This study has provided a review of how AI and FinTech intersect with financial literacy. It highlighted theoretical, methodological, and contextual patterns with “what are the identified problems (antecedent/cause), what are the decisions taken to address those problems (decision/action), and what are the outcomes” that have contributed to shaping this field. As per the objective, it has been found that earlier the literature in this field has grown, keeping focus on technology adoption models, FinTech acceptance models, but the recent trend shows institutional perspectives, which provide systemic adoption of policy implications in this field. There are some unexplored areas that have been found in developing nations where more study needs to be done. However, developed countries contributed the most. Many studies used methodologies like surveys and experimental designs, but less literature was found with “comparative or mixed-method” methodologies, applying these may build a deeper insight into long-term behavioral and systemic outcomes. Although this field has built a solid base, there are still some continued advancements needed that can incorporate this domain with theoretical integration. Furthermore, this study suggests a wider geographical coverage and the need for a stronger methodological rigor, which can ensure both academic enrichment and practical impact in promoting inclusive finance in the digital era.

Authors' Contribution

The author jointly contributed to the conception and design of the study. Prof. Lovleen Gupta undertook the development of the idea and methodological framework, and the execution of the analysis. The co-author, Mr. Santosh Kumar, prepared the original manuscript and provided essential contributions to methodological refinement, interpretation of results, and critical revision of the manuscript. Both authors have read and approved the final manuscript.

Conflict of Interest

The author declares no potential conflict of interest with respect to the research authorship and/or publication of this article.

Funding Acknowledgment

The author received no financial support for the research, authorship, and publication of this article.

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