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Financial Education and Women's Empowerment: A Systematic Literature Review

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Approved: 21 November 2026
Posted: 23 November 2026

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Cite As:
Intonti, M., & Scardigno, V. (2026). *Financial Education and Women's Empowerment: A Systematic Literature Review*. ESI Preprints.
https://doi.org/10.19044/esipreprint.11.2026.p582

Abstract

This systematic literature review examines how financial education and financial literacy are conceptualised and measured, which individual and contextual factors are associated with them, and how the available evidence relates to women's economic empowerment, vulnerability, and inclusion. A structured search of Scopus, Web of Science, and OpenAlex identified 3,077 records. Following deduplication, screening, and full-text eligibility assessment, 281 empirical studies published between 2010 and 2025 were included in the review. The review adopts a structured narrative synthesis organised around three research questions. First, the findings reveal substantial conceptual and operational heterogeneity: financial literacy is variously understood as objective knowledge, multidimensional competence, subjective confidence, financial behaviour, or applied capability, while 73 studies do not sufficiently specify the underlying construct. Second, 266 studies report at least one relevant individual, social-relational, or contextual-structural correlate, most frequently concerning gender, education, economic resources, cognitive and psychological characteristics, and age. Third, 141 studies contribute empirical evidence relevant to women's economic empowerment, financial vulnerability, or inclusion. Of these, 78 report directly relevant outcomes or explicit empirical proxies, while 63 examine potential enabling mechanisms, including financial decision capability, access to resources, socialisation, confidence, and responses to educational

interventions. The evidence suggests that financial literacy is embedded in broader social, relational, and institutional conditions that shape opportunities to acquire and exercise financial capabilities. However, the predominance of cross-sectional research and the frequent reliance on indirect indicators limit causal conclusions about empowerment. The review highlights the importance of distinguishing financial knowledge from the conditions that enable its practical application and identifies priorities for more comparable measurement and gender-responsive research.

Keywords: Financial education; financial literacy; gender; economic vulnerability; financial inclusion; systematic review

1. Introduction

Financial education has become a central topic in both academic and policy debate, as individuals are increasingly required to navigate saving, credit, planning, and risk under more complex financial conditions. In this context, financial literacy is frequently examined as a resource for informed economic decision making, whereas financial education refers more specifically to the processes and interventions through which relevant knowledge and capabilities may be developed. The relationship between educational interventions, acquired competence, and subsequent financial behaviour is nevertheless neither immediate nor necessarily sustained over time (Fernandes et al. 2014; Cole et al. 2011).

The distinction between financial education, financial literacy, and financial behaviour also raises important questions about how financial competence is conceptualised and measured. Empirical findings may differ not only because of the effectiveness of educational experiences, but also because studies operationalise financial competence through different cognitive, behavioural, and contextual dimensions (Fernandes et al. 2014). Alongside the cognitive dimension, strong emphasis is also placed on elements related to saving orientation, the ability to translate information into practice, the quality of everyday economic experience, and the concrete opportunities available for accessing financial services (Dholakia et al. 2016; Cole et al. 2011). From this perspective, financial competence extends beyond the possession of technical knowledge, while financial education represents one of the processes through which such competence may be developed.

The topic acquires further significance when considered in relation to economic vulnerability. A substantial body of literature shows that the financial dimension affects subjective well-being far beyond the level of formal competences, involving perceptions of security, stress linked to money management, and the capacity to imagine one’s economic future in

relatively stable terms (Netemeyer et al. 2018). At the same time, the ways in which individuals interpret money, consumption, and spending may be associated with greater or lesser exposure to financial fragility (Kappes et al. 2021). In this sense, financial literacy and the capabilities associated with it may be relevant to economic well-being and vulnerability through dimensions such as confidence, access to resources, financial participation, and decision-making capacity. Financial education may contribute to the development of these capabilities, although its effects should be distinguished from the relationships observed between financial literacy and subsequent economic outcomes.

Within this broader picture, gender is relevant not only to differences in financial-literacy scores but also to the conditions under which financial knowledge can be acquired, exercised, and converted into economic agency. Existing systematic reviews have already documented gender differences in economic and financial literacy and explored some of their potential explanations. In particular, Haag and Brahm (2025) reviewed 97 articles comprising 185 individual studies, examining the gender gap across different populations and geographical contexts, as well as explanatory factors including socialisation, confidence, and cognitive resources. Building on this literature, the present review addresses a related but distinct analytical problem. Rather than concentrating primarily on the magnitude and explanations of gender differences in financial literacy, it examines the conceptual heterogeneity of financial education and financial literacy, maps their reported individual and contextual correlates, and investigates the evidence connecting financial capabilities to women's economic empowerment, vulnerability, and inclusion. Particular attention is given to distinguishing directly observed outcomes and explicit proxies from potential enabling mechanisms, thereby clarifying the extent to which existing findings support broader claims about economic agency.

Despite the expansion of empirical research, financial education and financial literacy remain characterised by heterogeneous definitions, measurement strategies, populations, and interpretive frameworks. This heterogeneity complicates comparisons across studies and raises a further question: whether differences in financial knowledge and competence can be meaningfully connected to women's economic agency without considering the conditions under which such resources are acquired and exercised. Addressing this question requires distinguishing three analytical levels: the conceptualisation and measurement of financial literacy, the factors associated with its distribution, and the empirical evidence connecting financial capabilities to empowerment, vulnerability, and inclusion. The review therefore systematically examines 281 empirical studies, mapping their conceptual and methodological characteristics, identifying recurrent

correlates, and differentiating directly relevant outcomes or proxies from potential enabling mechanisms. This distinction provides a basis for assessing what the existing literature supports, where evidence remains indirect, and which questions require further investigation.

2. Theoretical and conceptual framework

In contemporary debate, financial education and financial literacy are related but not necessarily equivalent constructs. Financial education may denote a process, intervention, or exposure through which knowledge and capabilities are developed, whereas financial literacy is more often treated as an individual or relationally situated outcome comprising knowledge, behaviours, attitudes, confidence, or applied capability. Because empirical studies frequently blur these meanings, the present review treats their conceptual definition as an analytical result rather than inferring it solely from the instrument used. A closer reading of the literature, however, suggests that the construct exceeds the strictly cognitive level and involves, alongside knowledge, the possibility of translating information into behaviour, navigating between different options, and exercising a sufficiently reflexive control over economic choices. In this sense, the relationship between financial literacy, financial education, and downstream financial behaviours appears neither linear nor automatic, but mediated by further conditions concerning the ways in which competences are acquired, interpreted, and concretely mobilised within life contexts (Fernandes et al. 2014).

This perspective makes the theme of economic socialisation particularly relevant. Relationships with money, saving, risk, and planning do not emerge in a vacuum, but take shape through learning trajectories involving family, relational roles, divisions of responsibility, and broader environments of economic experience. From this point of view, the distribution of financial competence cannot be read solely as the sum of individual capacities, but also as the outcome of relational processes that shape who is expected to know, who is called upon to decide, and who is progressively authorised to become familiar with particular economic practices. The literature on the relationship between the distribution of financial responsibility within couples, financial literacy, and financial outcomes is especially useful in this respect, as it shows how financial knowledge also develops according to the position occupied within the concrete organisation of everyday economic life (Ward and Lynch 2019). Similarly, saving orientation appears less as a simple cognitive outcome and more as a sedimented disposition, supported by habits, self control, and practices repeated over time (Dholakia et al. 2016).

Financial literacy and related capabilities are also relevant to the study of economic vulnerability. The issue extends beyond differences in financial knowledge to encompass the cognitive, practical, and subjective resources through which individuals navigate economic circumstances and plan for their financial future. The literature on financial well-being clearly shows that the financial dimension has implications that go beyond the mere possession of knowledge, affecting overall subjective well-being and forms of stress linked to money management (Netemeyer et al. 2018). At the same time, apparently ordinary economic beliefs and representations may be associated with greater exposure to vulnerability and with lower levels of financial well-being, suggesting that the ways in which individuals interpret economic practices also contribute to shaping their outcomes (Kappes et al. 2021). In parallel, evidence on access to financial services suggests that knowledge and actual use of financial instruments do not automatically coincide, but are intertwined with barriers of cost, context, and opportunity (Cole et al. 2011).

It is within this framework that gender acquires full analytical relevance. The differences observed in the literature are of limited use if read as a simple gap in capability between men and women; they become more intelligible when traced back to gendered processes of economic socialisation, the distribution of responsibility, access to resources, confidence formation, and the legitimation of one's own economic role.

The relationship between financial knowledge, confidence, and participation is particularly relevant in this respect. Bucher-Koenen et al. (2025) show that confidence accounts for approximately 30% of the gender difference in financial literacy in their analysis, while the remaining share is attributable to differences in financial knowledge. Their findings therefore highlight the importance of distinguishing subjective confidence from objective competence, without suggesting that the knowledge gap can be disregarded. In this perspective, the role of educational and institutional contexts becomes central, not as a mere external apparatus, but as a set of conditions that may expand or restrict opportunities for learning, familiarisation, and economic agency. Inclusion, therefore, does not coincide solely with the possession of information, but also concerns access to financial services, participation in economic decisions, control over resources, and the recognition of women as legitimate economic actors. These dimensions can function as empirical proxies or enabling mechanisms of empowerment, but they should not automatically be treated as equivalent to a validated empowerment outcome. Accordingly, the analysis distinguishes changes in access, participation, confidence, and decision capability from direct evidence of women's economic empowerment.

3. Research questions and analytical focus

- **RQ1.** How are financial education and financial literacy conceptually defined and operationalised in the empirical literature?
- **RQ2.** Which individual, social-relational, and contextual-structural factors are reported in association with financial education and financial literacy, and how frequently do these factors recur across the included studies?
- **RQ3.** What empirical evidence links financial education and financial literacy to women's economic empowerment, economic and financial vulnerability, and financial and social inclusion, including the potential mechanisms underlying these relationships?

Analytical focus

Following the descriptive characterisation of the included studies, the analysis addresses the three research questions in sequence. The first examines the conceptual definitions and empirical operationalisation of financial education and financial literacy. The second identifies recurrent individual, social-relational, and contextual-structural correlates. The third evaluates evidence relevant to women's economic empowerment, vulnerability, and inclusion, distinguishing directly observed outcomes and explicit proxies from potential enabling mechanisms.

4. Methods

4.1. Search strategy and selection process

A systematic literature review of quantitative empirical research was conducted, with the search and selection processes documented using the PRISMA 2020 reporting framework. The bibliographic search covered Scopus, Web of Science, and OpenAlex and focused on studies examining financial education, financial literacy, their measurement, and their individual or contextual correlates within adult populations. Particular attention was given to the availability of gender-related evidence, while studies were not required to adopt a gender-specific focus to be eligible. The database searches were conducted on 25 October 2025.

Across the three databases, the search strategy combined two main groups of terms: on the one hand, terms referring to the object of study (*"financial literacy"* OR *"financial education"*); on the other, terms related to *quantitative measurement* (*survey, measurement, scale, index, assessment, determinant, factor, prevalence*) and to the *population of interest* (*adult*, women, female, gender, population*). Database-specific search strings were developed from a shared conceptual architecture and adapted to the indexing logic of Scopus, Web of Science, and OpenAlex; the full queries are reported in Appendix A. The search was further restricted to the years 2010–2025.

The selection process was organised into four consecutive stages: *duplicate assessment*, *title screening*, *abstract screening*, and *full-text reading*. After the identification of duplicate records, contributions were first assessed on the basis of title. Papers deemed potentially relevant were then evaluated through abstract screening. Contributions that passed both stages were subsequently read in full and subjected to the final inclusion or exclusion decision.

Exclusion criteria were coded through six categories. Code **N1** identified *not relevant* contributions; **N2** studies *not focused on financial literacy*; **N3** *reviews, editorials, or comparable non-empirical contributions*; **N4** studies with a *different focus*, for instance primarily centred on psychometrics, scale validation, conceptual models, or attitudes not linked to economic outcomes; **N5** works *without an estimable quantitative model*, such as purely descriptive studies, trend analyses, Likert-based perceptions not connected to economic outcomes, or simple correlations; and **N6** studies with a *sample size below 400*, excluded in order to retain a corpus with greater statistical robustness and cross-study comparability, consistent with the review's aim of identifying recurrent empirical patterns in adult financial education. The presence of any one of these conditions was sufficient for exclusion.

Overall, the initial database comprised 3,077 records. After the removal of 805 duplicate records, 2,272 records entered title screening. Of these, 1,163 were excluded during title screening, while a further 260 were excluded during abstract screening. Full-text reading was conducted for 849 papers, of which 568 were excluded with an explicit reason. The final analytical corpus comprised 281 included studies. The PRISMA flow diagram summarises the study selection process in detail (Figure 1).

4.2. Data extraction and synthesis strategy

Study selection and data extraction were organised as distinct methodological operations. Following title and abstract screening, potentially eligible reports underwent full-text assessment against the predefined exclusion criteria. Each report was evaluated for eligibility, and excluded contributions were assigned a reason corresponding to codes N1–N6. The 281 eligible studies were subsequently examined using a structured extraction framework covering bibliographic characteristics, sample composition, research design, construct definition, measurement strategy, quantitative findings, and gender-related evidence relevant to the three research questions. Given the heterogeneity of study designs, populations, measures, and reported outcomes, the extracted information was organised through a structured narrative synthesis rather than combined into a pooled meta-analytic estimate.

The bibliographic report was used as the primary unit of classification and synthesis. Each eligible report was assigned a unique identifier and coded for its publication characteristics, empirical design, analytical sample, construct definition, measurement instrument, and findings relevant to the research questions. Where multiple analyses or samples were reported within the same publication, these were documented without treating the publication as multiple independent records. For RQ1, studies were assigned a primary conceptualisation and one or more overlapping dimensions: knowledge or cognitive understanding; behaviour or practice; attitudes or dispositions; applied skills or capability; subjective literacy or confidence; domain-specific literacy; digital literacy; or educational intervention/exposure. When the available study record used the label financial literacy without sufficient conceptual information, the construct was coded as broad or insufficiently specified rather than inferred from the instrument name alone. In parallel, the main quantitative findings were coded into recurrent categories of associated factors, including educational attainment, economic resources, age or life course position, economic socialisation, cognitive and psychological resources, digital access and skills, employment status, and territorial context. Because individual studies could report more than one relevant correlate, coding of associated factors was not mutually exclusive; the frequencies reported in the Results therefore indicate the number of studies in which a given category appeared rather than summing to the total number of included studies. For RQ3, a two-tier classification distinguished studies reporting outcomes or explicit empirical proxies relevant to women's economic empowerment, economic or financial vulnerability, and financial or social inclusion from studies investigating potential enabling mechanisms without directly measuring these outcomes. The latter category included empirical evidence concerning gender-differentiated relationships, women-specific subgroup patterns, or differential responses to financial education relevant to these domains. Classification as mechanism-related evidence did not imply that a causal pathway had been established. A descriptive gender gap, a gender coefficient without a relevant outcome or mechanism, and purely interpretive or normative claims were insufficient for inclusion. The two tiers were treated as mutually exclusive for the overall study count, while thematic categories within the mechanism tier could overlap.

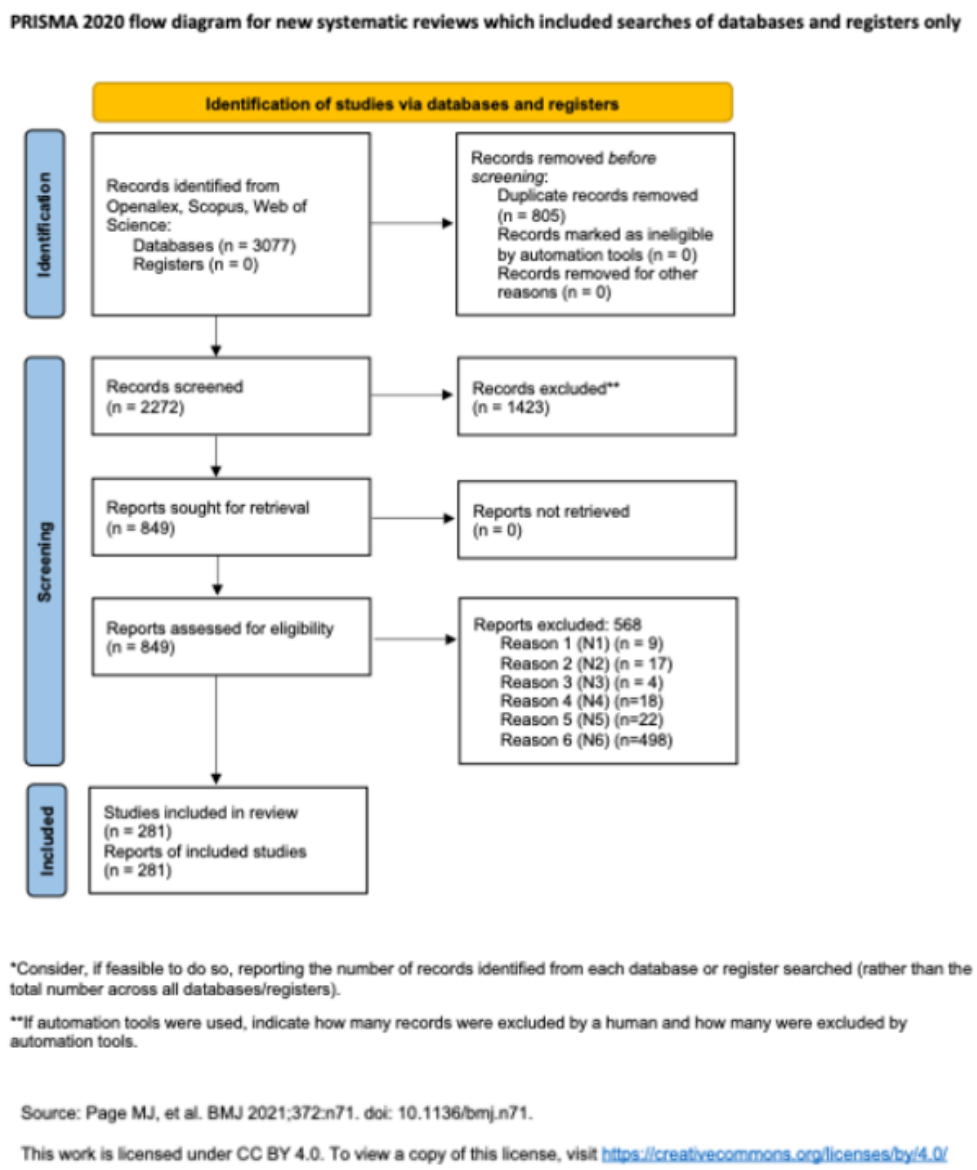

Figure 1: PRISMA 2020 flow diagram of the study selection process. The searches identified 3,077 records across Scopus, Web of Science, and OpenAlex. After removal of 805 duplicates, 2,272 records underwent title screening, of which 1,163 were excluded. The remaining 1,109 records underwent abstract screening, resulting in 260 additional exclusions. Full-text eligibility was assessed for 849 reports, of which 568 were excluded according to the predefined eligibility criteria. The final corpus comprised 281 included studies.

5. Results

5.1. Descriptive profile of the included studies

The final analytical corpus comprises 281 included studies. From a temporal perspective, the literature is clearly concentrated in the most recent years: whereas contributions published between 2010 and 2018 remain relatively limited, a more marked growth in empirical interest can be observed from 2019 onwards. In particular, 225 studies (80.1% of the corpus) were published between 2020 and 2025, while 174 (61.9%) fall within the period 2022–2025. Overall, the concentration of publications in recent years indicates growing empirical attention to financial education and financial literacy within the literature covered by this review, as illustrated by the temporal distribution reported in Figure 2.

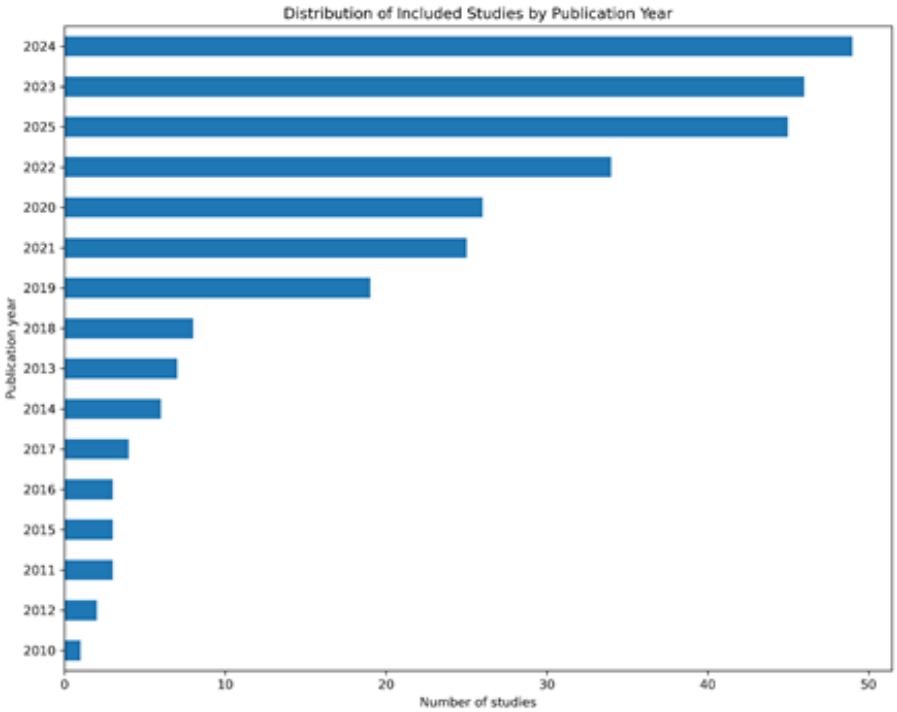

Figure 2: Temporal distribution of the included studies by publication year. The figure shows the increasing concentration of empirical contributions in the most recent period, particularly from 2020 onwards.

The geographical distribution of the included studies is diverse but uneven. The most frequently represented national contexts are the United States (30 studies), Indonesia (24), India (20), and China (20), while the remaining contributions cover a wider range of countries with lower individual frequencies. The corpus also includes heterogeneous adult populations, encompassing general population samples, university students, women-focused samples, older adults, and specific socio-economic groups.

This diversity broadens the descriptive scope of the review but also requires caution when comparing findings obtained from substantially different populations and institutional contexts (Figure 3).

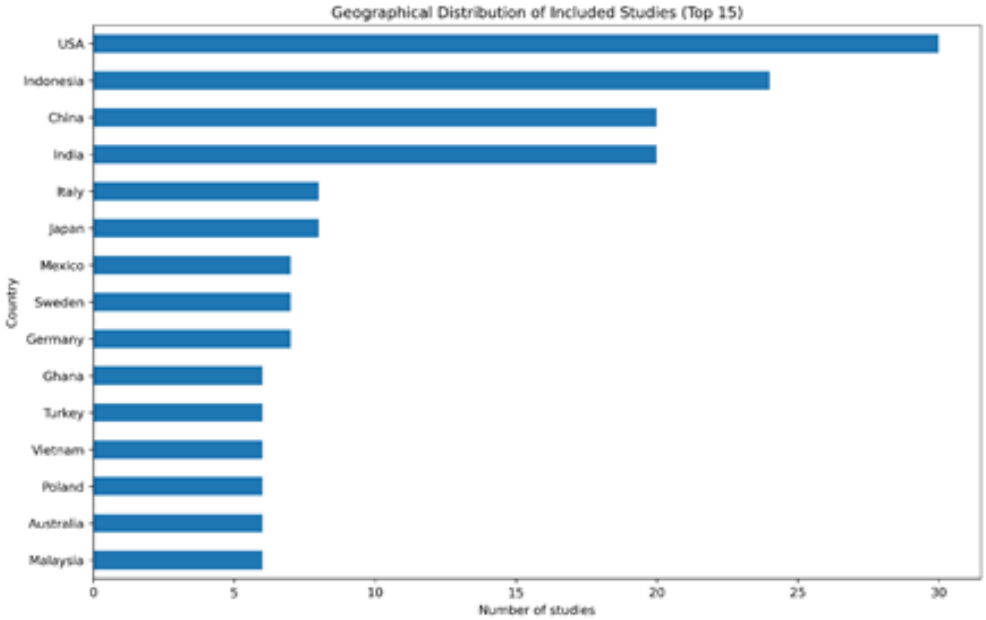

Figure 3: Geographical distribution of the included studies. The figure reports the most represented national contexts within the final analytical corpus, highlighting the international scope of the field alongside its uneven geographical concentration.

The included evidence is predominantly quantitative and survey-based, with substantial heterogeneity in analytical sample sizes and research designs. Reported sample sizes or observation counts range from 400 to more than 45 million, with a median of slightly over 1,100. These values should be interpreted with caution, as the number of observations is not necessarily equivalent to the number of independent participants across different study designs. Cross-sectional studies account for 252 contributions (89.7% of the corpus), while longitudinal, panel, experimental, and mixed-method designs are less frequently represented. This methodological concentration is relevant to the interpretation of the subsequent findings, particularly where reported associations are discussed in relation to individual capabilities, economic vulnerability, or empowerment.

5.2. Definitions and measurement of financial education and financial literacy

The first research question examines the conceptual and operational heterogeneity of financial education and financial literacy across the included studies. Two complementary classifications were used: a mutually

exclusive classification of each study's primary conceptualisation and a non-mutually-exclusive classification of the dimensions incorporated into its definition or measurement. This distinction is necessary because similar measurement instruments may represent different conceptual assumptions, while multidimensional approaches may combine knowledge, attitudes, behaviour, confidence, and applied capabilities. The analysis therefore first examines how the constructs are defined and subsequently identifies which dimensions recur across the empirical literature.

The principal finding concerns conceptual rather than merely instrumental heterogeneity. Among the 281 studies, 73 (26.0%) use a broad financial-literacy label without making its conceptual meaning sufficiently explicit in the available record. Forty-one studies (14.6%) adopt a standardised multidimensional literacy or capability framework; 37 (13.2%) operationalise literacy primarily as objective financial knowledge; and 33 (11.7%) use a predominantly knowledge-centred definition without a clearly identifiable canonical battery. A further 26 studies (9.3%) define literacy in relation to a specific domain, such as investment, pensions, debt, insurance, entrepreneurship, or taxation. Nineteen studies (6.8%) explicitly distinguish objective and subjective literacy; 18 (6.4%) use a knowledge–behaviour–attitude composite; 17 (6.0%) focus on applied skills or capability; eight (2.8%) use a broader applied and multidimensional capability model; seven (2.5%) centre on digital financial literacy or capability; and two (0.7%) operationalise financial education primarily as exposure to an intervention or training programme.

Because conceptual dimensions can coexist within the same study, a second, non-mutually-exclusive coding was also examined. Knowledge or cognitive understanding appears in 140 studies (49.8%), behaviour or practice in 70 (24.9%), applied skills or capability in 53 (18.9%), subjective literacy or confidence in 51 (18.1%), domain-specific literacy in 38 (13.5%), attitudes or dispositions in 32 (11.4%), educational intervention or exposure in 17 (6.0%), and digital literacy in 16 (5.7%). These findings show that the same label often refers to materially different empirical objects. Instrument families remain relevant to methodological comparability, but they cannot substitute for identifying what each study means by financial education or financial literacy.

This conceptual diversity is also reflected in individual empirical contributions. Cucinelli and Soana (2023) distinguish between incorrect and "do not know" responses to financial-knowledge questions, showing that these response patterns identify groups with different socio-economic characteristics and exposure to financial fraud. In a different domain, Choung et al. (2023) conceptualise digital financial literacy through financial knowledge and multiple digital competencies, finding that the ability to

protect oneself against digital fraud is particularly relevant to financial well-being. These examples illustrate how apparently related measures may capture different dimensions of financial competence, with implications for both the interpretation and comparability of empirical findings.

The findings reveal a tension between the use of standardised approaches and the adaptation of financial-literacy measures to particular populations, domains, and institutional contexts. Some studies adopt recognisable multidimensional frameworks or knowledge-centred instruments, whereas others focus on specific financial domains or incorporate behavioural, attitudinal, subjective, and applied dimensions. This variation does not necessarily indicate inconsistent measurement of a single construct: in several cases, studies are addressing conceptually different aspects of financial competence. Consequently, the comparability of empirical findings depends not only on the instruments employed but also on the conceptual dimensions those instruments are intended to represent.

Overall, the first research question reveals that financial education and financial literacy are characterised by substantial conceptual and operational heterogeneity. The fact that 73 studies do not sufficiently specify their underlying conceptualisation further illustrates the difficulties involved in comparing empirical findings across the literature. These differences are not exclusively methodological: studies may employ distinct instruments because they address different dimensions of financial competence, while apparently similar measures may reflect different conceptual assumptions. The distinction between conceptual definition and empirical operationalisation therefore represents one of the central findings of the review and an important consideration for the development of more comparable research.

5.3. Factors associated with financial literacy and financial education

For descriptive purposes, the reported associations were organised into recurrent analytical categories, allowing multiple categories to be assigned to the same study when more than one factor was identified. The analysis indicates that financial literacy and related financial capabilities are examined in relation to a plurality of individual, social, and economic conditions, rather than to a single dominant factor. Across the corpus, these constructs are recurrently associated with educational resources, economic conditions, cognitive and psychological characteristics, socialisation processes, and contextual factors. Rather than representing exclusively individual attributes, financial capabilities appear to be situated within differentiated learning environments, material opportunities, and social relationships.

Of the 281 included studies, 266 (94.7%) report at least one individual, social-relational, or contextual-structural factor associated with financial education or financial literacy. Gender or sex is the most frequently identified category, appearing in 164 studies (58.4%), followed by educational attainment in 111 (39.5%), economic resources in 110 (39.1%), cognitive and psychological resources in 96 (34.2%), and age or life-course position in 89 (31.7%). Social-relational factors appear in 50 studies (17.8%), contextual or structural conditions in 40 (14.2%), and digital access or skills and employment or occupation in 37 studies each (13.2%). Because studies could contribute to multiple categories, these frequencies are not mutually exclusive. Importantly, the counts indicate how frequently each category was identified in the coded literature; they do not establish the prevalence of statistically significant associations, their direction, their relative explanatory importance, or their causal influence. The findings therefore describe the empirical attention given to different correlates of financial literacy rather than providing a pooled estimate of their effects.

The relationship between psychological resources and economic socialisation is illustrated by several studies in the corpus. Using Canadian data, Fonseca and Lord (2020) find that financial confidence accounts for 14.15% of the observed gender gap in financial literacy, while participation in household financial planning accounts for a further 16.76% in their Oaxaca–Blinder decomposition. Similarly, Furrebøe et al. (2023) identify gender differences in recalled economic socialisation and in the relationships between early financial experiences, self-assessed knowledge, and subsequent financial behaviour. These findings highlight the relevance of family experiences, interpersonal relationships, and opportunities to participate in financial decisions. Financial literacy thus emerges not merely as acquired knowledge, but also as a capability associated with learning experiences and opportunities for practical application within specific social and relational contexts.

Overall, the response to the second research question indicates that financial literacy and related capabilities are associated with a plurality of individual, social-relational, and contextual-structural factors, including educational attainment, economic resources, age, economic socialisation, cognitive and psychological resources, digital skills, employment status, and territorial context. The findings therefore support an interpretation of financial capabilities as socially distributed and contextually situated, shaped by the interaction between individual resources and the opportunities for learning and economic participation available across different life environments.

5.4. Financial literacy and financial education in relation to women's empowerment, vulnerability, and inclusion

Applying the classification criteria described in Section 4.2, 141 of the 281 included studies (50.2%) contribute empirical evidence relevant to the third research question. Of these, 78 studies (27.8% of the full corpus) report an outcome or explicit empirical proxy concerning women's economic empowerment, economic or financial vulnerability and well-being, or financial and social inclusion and participation. The remaining 63 studies (22.4%) examine empirically investigated mechanisms potentially relevant to these outcomes without measuring them directly. These include gender-differentiated pathways, women-specific subgroup relationships, and differential responses to financial education or literacy. The two categories were treated as mutually exclusive at the study level to avoid double counting. This classification is analytically distinct from the identification of gender or sex as an associated factor under RQ2. Whereas the latter records the occurrence of gender-related variables in the empirical literature, RQ3 requires evidence directly relevant to the specified outcomes or to potential enabling mechanisms. Consequently, a descriptive gender difference or the inclusion of gender as a control variable was not sufficient for classification as evidence relevant to RQ3.

Within the mechanism tier, categories overlap. Financial behaviour and decision capability appear in 51 studies; economic resources and labour-market positioning in 44; access, digital capability, and participation in 42; socialisation, norms, and household relations in 33; confidence, self-efficacy, or psychological agency in 32; and responsiveness to education or training in 23. These mechanisms identify potential pathways through which financial capabilities and exposure to financial education may be relevant to empowerment or reduced vulnerability, but they do not, by themselves, demonstrate that either outcome has occurred.

Individual studies illustrate how financial capabilities and economic outcomes are connected under different empirical conditions. Using household-level survey data from India, Khandelwal et al. (2025) report a positive association between financial literacy and financial inclusion, with stronger associations among men and more economically advantaged groups. Complementary evidence comes from the randomised experiment conducted by Doi et al. (2014) among Indonesian female migrants and their families. In that study, providing financial education to both migrants and remittance-receiving family members produced stronger improvements in financial knowledge and savings outcomes among the receiving households than training either group separately. These findings highlight the relevance of access conditions and the relational organisation of financial decision

making, while distinguishing observed financial outcomes from broader claims about women's empowerment.

Within the analysed corpus, part of the literature does report lower levels of financial literacy among women on some objective measures, or lower participation in particular economic and financial practices. These findings can also be examined in relation to differences in economic socialisation, early familiarity with financial practices, educational opportunities, labour-market participation, access to resources, and opportunities for economic agency. From this perspective, gender represents not merely a descriptive variable, but an important dimension through which the social and relational conditions of financial competence can be examined.

Across the 141 studies classified as relevant to RQ3, the evidence supports a shift away from a purely deficit-based interpretation of women's financial literacy. The directly relevant outcomes and proxies concern financial inclusion, participation, financial well-being, resilience, and economic security, while studies addressing potential enabling mechanisms examine confidence, socialisation, access to resources, labour-market positioning, and opportunities to practise financial decision making. The evidence therefore supports a relational and contextual interpretation, although it does not establish that every observed gender gap is caused by these mechanisms. The lower performances identified in some studies are therefore compatible with explanations involving unequal opportunities for economic socialisation, financial participation, and the practical exercise of decision-making responsibilities. In this sense, what matters is not only cognitive or informational resources, but also confidence, self efficacy, recognition of one's own economic role, and the possibility of translating knowledge into practice. The corpus therefore suggests that part of the observed gender gap concerns not only what individuals know, but also what they have been enabled to learn, exercise, and regard as legitimately their own.

Alongside these aspects, the literature identifies broader dimensions associated with the gendered division of labour, the distribution of care responsibilities, economic dependence or interdependence, and the opportunities for autonomy available across adult life. Although these dimensions are not consistently operationalised across the included studies, they provide a relevant interpretive context for understanding the observed differences. For this reason, the economic vulnerability emerging from the review cannot be read simply as the consequence of lower literacy in a narrow sense, but should instead be understood as a condition that may intensify when inequalities of access, learning, and recognition accumulate over time.

Overall, the response to the third research question suggests that gender differences in financial literacy are more usefully understood in relation to economic socialisation, access to resources, confidence formation, and opportunities to exercise economic agency, rather than exclusively as differences in financial knowledge. From this perspective, the role of educational and institutional contexts becomes particularly relevant, not because they are called upon to compensate for an individual deficit, but because they may expand spaces of autonomy, support familiarity with economic issues, and accompany the acquisition and use of financial competences in a more equitable way. Taken together, the evidence suggests that financial education and financial literacy may contribute to women's economic agency when knowledge is accompanied by access to resources, opportunities for participation, confidence, and the practical exercise of financial decision making. Their contribution should therefore be understood as relational and context-dependent rather than as an autonomous effect of individual knowledge.

6. Discussion

Taken as a whole, the review indicates that research on financial education has expanded substantially, but without equivalent consolidation in measurement, analytical design, or interpretive framing. The first finding concerns the absence of a single shared conceptual definition. Across the corpus, financial education and financial literacy are conceptualised in different ways: the former may refer to educational processes or interventions, while the latter is variously operationalised as objective knowledge, multidimensional combinations of knowledge, behaviour and attitudes, subjective confidence, applied capability, digital competence, or domain-specific literacy. Moreover, 73 studies do not make the construct sufficiently explicit in the available record. Methodological heterogeneity is therefore not only a matter of different instruments: it also reflects variation—and sometimes ambiguity—in the empirical object being measured. Comparability should consequently be assessed at both the conceptual and instrumental levels. This variety, on the one hand, testifies to the vitality of the literature and to its capacity to adapt to different contexts, populations, and research aims; on the other hand, it makes the comparison of results less immediate and the consolidation of shared standards more complex. In this sense, one of the main implications of the review concerns precisely the need to read different empirical findings with caution, avoiding the assumption that all studies are observing exactly the same object.

At the same time, the findings indicate that financial literacy and related capabilities are associated with a plurality of individual, social, and contextual conditions. The recurrent presence of educational attainment,

economic resources, age, cognitive competences, digital access, employment, and territorial context suggests that measured financial capabilities are situated at the intersection of personal resources and broader social conditions. From this perspective, financial literacy emerges less as an isolated technical endowment and more as a situated capability, developing within differentiated learning environments, biographical trajectories, and material opportunities. Particularly significant in this regard is the recurrent presence of economic socialisation, which suggests that relationships with money, saving, risk, and planning are also formed through familial, relational, and cultural processes, and not only through formal education or the acquisition of notions.

The third research question offers the clearest connection between the review's findings and the study of gender inequality. The 78 studies reporting directly relevant outcomes or explicit proxies address financial inclusion, participation, financial well-being, resilience, economic security, and aspects of women's economic agency. The additional 63 studies examine potential enabling mechanisms, including confidence, economic socialisation, household relations, digital access, and opportunities for financial decision making. The distinction between these two levels of evidence is central to the interpretation of the findings. Although the literature identifies several pathways through which financial capabilities may be connected to women's autonomy and economic participation, the available evidence does not support treating financial literacy as a sufficient cause of empowerment. Instead, it suggests that financial knowledge and capabilities should be examined in relation to the material, relational, and institutional conditions that enable or constrain their use. This interpretation broadens the analytical focus beyond differences in literacy scores while preserving the distinction between observed associations and causal mechanisms that remain to be established.

The broader contribution of the review lies in recognising financial literacy as a socially situated capability rather than an exclusively individual attribute. Its development and practical exercise are shaped by the interaction between knowledge, economic socialisation, access to resources, and the institutional contexts in which financial decisions are made. In this perspective, economic vulnerability does not simply coincide with a cognitive lack, but tends to intensify when educational opportunities, material resources, confidence, and institutional supports are unevenly distributed across life trajectories. For this reason, promoting financial education cannot be reduced to the transmission of information or the improvement of literacy scores alone, but also requires the creation of more favourable conditions for learning, economic autonomy, and the possibility of recognising oneself, and being recognised, as a fully legitimate subject in

economic decision making. Read in these terms, gender-responsive educational and institutional contexts may support economic inclusion and reduce vulnerability by expanding access, confidence, decision capability, and opportunities for participation. This conclusion remains primarily mechanism-based: the predominance of cross-sectional evidence limits causal inference, and empowerment is frequently represented through intermediate proxies. Future research should therefore test these pathways longitudinally or experimentally and should incorporate validated measures of economic agency, control over resources, financial participation, and economic well-being.

Limitations

The review adopted clearly defined eligibility criteria, including a minimum analytical sample of 400 observations, to maintain a consistent focus on larger-scale quantitative evidence. This approach supports the identification of recurrent empirical patterns across a substantial corpus of studies. As research primarily concerned with psychometric validation or instrument development was excluded, the findings concerning conceptualisation and measurement should be understood as reflecting the eligible quantitative literature rather than the entire body of research devoted to financial-literacy measurement. The considerable heterogeneity of definitions, measurement strategies, and research designs also informed the decision to adopt a structured narrative synthesis rather than a pooled meta-analytic approach. Moreover, the predominance of cross-sectional studies in the existing literature calls for caution when interpreting associations in causal terms. The synthesis focuses on identifying and organising reported empirical evidence rather than estimating quality-weighted effects. Finally, the use of indirect indicators of women's empowerment in part of the literature highlights the importance of further research employing longitudinal designs and validated measures of economic agency. These considerations define the interpretive boundaries of the review while providing directions for extending the evidence identified across the 281 included studies.

Conflict of Interest: The authors reported no conflict of interest.

Data Availability: All data are included in the content of the paper.

Funding Statement: The authors did not obtain any funding for this research.

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