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FINANCIAL LITERACY EDUCATION AND SOCIAL WELFARE: A LITERATURE REVIEW ON RELATIONSHIPS AND DETERMINANTS OF EFFECTIVENESS

Adelia Putri

Universitas IPWIJA, Bogor

correspondence: adeliaputri@gmail.com

Abstract

Financial literacy education has emerged as a critical intervention for improving social welfare in an increasingly complex financial landscape. This qualitative literature study examines the mechanisms through which financial literacy education contributes to social welfare and identifies key components that determine its effectiveness. The analysis reveals that financial literacy education contributes to social welfare through cognitive enhancement, attitude transformation, behavioral change, risk reduction, and improved participation in formal financial systems. Effectiveness is determined by multiple interrelated components including relevant curriculum, participatory teaching methods, comprehensive evaluation, educator competence, supportive learning environments, adequate program duration, stakeholder engagement, adaptation to vulnerable groups, technology utilization, competency-based approaches, practical experiences, program sustainability, and long-term impact assessment. The findings demonstrate that financial literacy education functions as a transformative process requiring careful design and systematic implementation to achieve meaningful improvements in social welfare. The study concludes that investment in financial literacy education with attention to these key components yields significant returns in terms of individual financial well-being and broader social welfare outcomes. This research provides a conceptual framework for designing more effective financial literacy education programs and offers guidance for policymakers, educators, and practitioners in the field.

Keywords: financial literacy, financial education, social welfare, financial behavior, curriculum design, program effectiveness, well-being.

Introduction

Social welfare is an ideal condition continually pursued by every modern society. The attainment of welfare depends not solely on macroeconomic growth or the availability of employment opportunities, but also on individuals' ability to manage the financial resources they possess. When a person has an adequate understanding of money management, they tend to be able to make wise financial decisions for their future (Manoharan et al., 2024). This ability then affects household economic stability, which ultimately contributes to overall social welfare. An interesting social phenomenon to observe is how differences in the level of financial understanding among individuals produce real welfare gaps in society. Someone with the same income but a different level of financial understanding can experience very different conditions of welfare. This same logic of deliberate resource governance is echoed in principles for sustainable resource management in the industrial sector, and it applies equally at the organizational level, where sound financial management needs to be integrated with other functions such as human resources, marketing, and production (Darmawan et al., 2013).

Financial literacy education emerges as one answer to overcoming this gap through a systematic and structured approach. This educational process aims to equip learners with the knowledge, skills, and attitudes needed to manage finances responsibly (Jin et al., 2025). Through a specially designed curriculum, individuals are taught about budget planning, debt management, investment, and asset protection. This knowledge is then expected to be applied in daily life to improve the quality of financial decision-making. This process of transforming knowledge into behavior is the core of financial literacy education's effectiveness in improving social welfare. Financial literacy education serves as a bridge between financial knowledge and welfare practice.

Ethical considerations are central to this process as well, particularly in guiding sound investment decisions and managing financial risk responsibly (Putra & Arifin, 2023). Practical initiatives such as simple bookkeeping and financial management training for micro, small, and medium enterprises show how these principles can be translated into concrete skills for the wider community (Darmawan et al., 2023).

The educational approach to financial literacy has an advantage over one-off socialization or campaigns because of its continuous and measurable nature. Education provides room for the gradual development of competence through a planned teaching and learning process, from the introduction of basic concepts to the application of complex financial strategies (Pyanova et al., 2025). This process allows learners to internalize good financial management values into habits embedded within themselves. Money management habits formed from an early age will become a solid foundation for financial well-being in adulthood. Therefore, strengthening financial literacy education at various levels of education becomes a strategic long-term investment for building social welfare. Effective education requires attention to teaching methods, relevant materials, and comprehensive evaluation. Building such habits also depends on the surrounding environment: research on authentic leadership shows that a positive climate encourages the kind of consistent, disciplined behavior that habit formation requires (Mardikaningsih et al., 2022). In the same vein, ethical leadership contributes to shaping a sustainable culture in which good financial values can take root over time (Mardikaningsih et al., 2022).

In practice, financial literacy education faces various complexities arising from the diverse characteristics of learners and the constantly changing dynamics of the socioeconomic environment. Each individual has a different family background, financial experience, and learning preference, so a uniform educational approach often fails to produce an optimal impact (Rani et al., 2025). Differences in the initial level of financial understanding also affect the extent to which a person can absorb and apply the material taught. Another challenge arises from the rapid development of financial products and services, which requires continuous curriculum updates to remain relevant to society's needs. Digitalization of the financial sector has fundamentally changed the landscape of money management, demanding adjustments in the material and methods of financial literacy education. The response to this change must be carried out carefully so that education remains effective. This wave of digitalization is not confined to the financial sector alone; it has also reshaped operations in other industries, for instance through the application of big data, artificial intelligence, and the

Internet of Things in supply chain management (Putra & Arifin, 2021). Such rapid technological change raises new legal questions as well, including the validity of electronic contracts generated with artificial intelligence, an issue that financial literacy education will eventually need to help learners understand (Maulani et al., 2023).

A review of the literature on financial literacy education shows a strong relationship between financial knowledge and healthy financial behavior, although this relationship is not direct or simple. Knowledge of financial concepts does not automatically guarantee its application in daily practice because of psychological, social, and environmental factors that influence an individual's financial decisions. Attitudes toward money, beliefs about risk, and the influence of social groups are often more dominant in shaping financial behavior than theoretical knowledge alone. Thus, financial literacy education must be designed to bridge the gap between knowledge and behavior through the development of more comprehensive competencies. An approach that integrates cognitive, affective, and psychomotor aspects in learning is believed to produce more sustainable behavioral change. Studies on the effectiveness of financial literacy education must consider the various variables that mediate the relationship between financial knowledge and behavior.

Financial literacy education often fails to achieve the goal of improving social welfare because of a gap between the material taught and the real needs of society (Xu, 2018). Financial literacy curricula in various educational institutions tend to focus on understanding basic financial concepts without paying attention to the socioeconomic context of learners. As a result, the knowledge gained cannot always be applied to the financial situations faced daily, especially for groups of society with limited access to formal financial products and services. This gap widens further when the curriculum is not updated along with changes in the dynamic financial landscape, such as the emergence of technology-based investment instruments and new digital payment systems. Learners then leave the education system with theoretical understanding that is less relevant to the financial challenges they will face. This condition raises questions about the effectiveness of financial literacy education in its current form. This gap is especially visible in non-cash transactions, where the risks associated with e-wallets and the legal protections available to users are often poorly understood by the public, despite their growing role in everyday financial activity (Oriento et al., 2023).

Another major problem lies in the limitations of financial literacy teaching methods, which are still dominated by a cognitive approach without reinforcement of behavioral and attitudinal aspects. Learning centered on the transfer of knowledge through lectures and readings has proven less effective in forming habits of responsible financial management. Learners may be able to answer questions about compound interest or inflation correctly, yet still struggle to resist consumptive impulses or plan a monthly budget with discipline. This gap between knowledge and action is the main obstacle to realizing the impact of education on social welfare. Without significant behavioral change, the investment of resources in financial literacy education will not produce an optimal return in the form of improved societal welfare. Evaluations of existing financial literacy programs also often overlook the measurement of long-term behavioral change.

The rapid growth of the digital economy has changed the way society transacts, saves, and invests, thus demanding a higher level of financial adaptability from every individual (Zhao & Zhao, 2024). Easy access to consumptive credit through digital platforms and online lending services creates new risks to society's financial well-being. Without an adequate understanding of interest mechanisms, hidden costs, and the long-term consequences of debt, individuals can become trapped in serious financial problems. The increasingly diverse investment products, with varying levels of risk, also require better financial analysis skills so that society does not fall into harmful investment schemes. This change in the financial landscape is happening so quickly that financial literacy education must be able to respond with an adaptive curriculum and teaching methods. Studies on financial literacy education are highly relevant to ensure society's readiness to face the complexity of contemporary finance. These risks are compounded by the fact that legal protection for consumers of online lending services is still uneven, leaving many borrowers exposed to unfavorable terms (Faridi et al., 2023). A fair investment climate is equally necessary to keep the public from falling into harmful investment schemes, a task that depends partly on the extraterritorial authority of competition-law bodies such as Indonesia's Business Competition Supervisory Commission in enforcing fair market practices (Firmansyah et al., 2023).

Social welfare as a goal of national development cannot be achieved without economic empowerment at the individual and household levels. Financial literacy education offers a preventive rather than curative path of empowerment, as it equips communities with the ability to avoid financial problems from the outset (Akbaş & Seedsman, 2024). Investment in financial literacy education can reduce the government's burden in providing social safety nets for communities experiencing financial difficulties. Studies in various countries show that communities with higher levels of financial literacy tend to have larger savings, more controlled debt, and better preparedness for retirement (Kaiser & Lusardi, 2024). All of these indicators contribute directly to poverty reduction and the sustainable improvement of social welfare. Thus, the study of the relationship between financial literacy education and social welfare has broad policy implications for development planning.

This study aims to systematically identify and analyze the mechanisms through which financial literacy education contributes to the improvement of social welfare, by examining the pathways of influence connecting financial knowledge, financial behavior, and welfare indicators. This research also aims to outline the key components of financial literacy education that determine its effectiveness as an instrument for improving social welfare, encompassing aspects of curriculum, teaching methods, and evaluation strategies. The theoretical contribution of this research is the development of a conceptual framework that clarifies the relationship between the variables of financial literacy education and social welfare, as well as the identification of key indicators that can be used to measure the effectiveness of financial literacy programs. Practically, the results of this research are expected to serve as a guide for educators, policymakers, and educational practitioners in designing more effective financial literacy programs to achieve the goal of improving social welfare.

Method

This study uses a qualitative literature study approach focusing on in-depth analysis of various written sources relevant to financial literacy education and social welfare. The literature study method was chosen because it allows researchers to explore and synthesize knowledge that has developed in this field without requiring primary data collection through interviews or field observations. According to Creswell (2009), a qualitative literature study is an effective approach to understanding complex social phenomena by integrating findings from various previous studies. This approach allows researchers to identify patterns, themes, and knowledge gaps existing in the available literature. In this study, the sources reviewed include scientific journal articles, textbooks, research reports, and policy documents discussing financial literacy education and social welfare. The analysis process is carried out using a thematic approach that organizes the findings into conceptual categories relevant to the research problem formulation.

The research procedure follows the systematic steps recommended in qualitative literature study methodology, as outlined by Denzin and Lincoln (2011) regarding qualitative research practices. The initial stage consists of identifying and formulating clear research questions, followed by a systematic literature search using trusted academic databases such as Scopus, Web of Science, and Google Scholar. Inclusion and exclusion criteria are applied to ensure that the selected sources have adequate relevance and scientific quality. After the sources are collected, the next stage is data extraction by critically reading and recording important information from each source. Data analysis is conducted through a process of coding and grouping findings into themes appropriate to the research problem. The entire analysis process is underpinned by the principle of deep interpretation, as explained by Charmaz (2006) in the constructivist approach to qualitative research. This study also pays attention to the validity aspect of the findings through source triangulation and cross-checking interpretations against the reviewed literature.

Result and Discussion

Mechanism of Financial Literacy Education's Contribution to Social Welfare

Financial literacy education contributes to social welfare through a series of interrelated mechanisms that form a pathway from knowledge to behavior and then to welfare outcomes. The most fundamental mechanism lies in strengthening individuals' capacity to understand and evaluate the financial information they encounter daily (Lusardi & Mitchell, 2023). A person educated in financial literacy can distinguish between needs and wants, understand the long-term consequences of financial decisions, and weigh the risks and rewards of various financial alternatives. This cognitive ability becomes the foundation for more rational and prudent decision-making in managing available financial resources. Such rational decisions are then translated into concrete actions, such as setting aside part of one's income for savings, choosing low-cost financial products, and avoiding unproductive consumptive debt. These actions gradually build the individual financial stability that is a precondition for social welfare. This link between financial understanding and sound financial behavior has also been observed among the younger generation, whose interest in investment tends to rise along with their level of financial literacy (Darmawan & Mardikaningsih, 2023).

The next mechanism, equally important, is the development of healthy financial attitudes and values through a continuous educational process. Financial literacy education does not merely transfer knowledge; it also shapes how individuals view money, risk, and planning for the future. Discipline in managing finances, awareness of the importance of an emergency fund, and a commitment to living within one's means are values instilled through effective education. These values then form a person's financial identity and influence every financial decision made in daily life. With the right attitude, a person is not easily tempted by enticing credit offers or investments promising unrealistic returns. This protection against harmful financial behavior is one of the important contributions of financial literacy education to long-term welfare. Legal enforcement against corrupt practices in business and investment plays a similar protective role, discouraging the kind of unrealistic offers that a person with weak financial attitudes might otherwise fall for (Saputra et al., 2021).

Financial literacy education also operates through the mechanism of improving resource allocation efficiency at the household level (Grohmann et al., 2020). Understanding of budgeting allows individuals to allocate income optimally across various spending categories, savings, and investments according to their own priorities and financial goals. This allocation efficiency reduces waste and ensures that every unit of currency earned delivers maximum benefit to household welfare. On a broader scale, efficient resource allocation across thousands of households produces higher national savings accumulation. High national savings support productive investment and sustainable economic growth. This individual-level mechanism therefore carries significant macro-level implications for overall social welfare. A parallel logic applies to financial information systems, where accurate reporting and transparency likewise drive more efficient allocation of resources within an organization (Sinambela & Mauliyah, 2016).

The role of financial literacy education in reducing financial vulnerability is another important mechanism contributing to social welfare. Individuals with a good financial understanding tend to be better prepared for unexpected events such as job loss, accidents, or emergency medical needs. They have sufficient emergency funds, appropriate insurance, and clear contingency plans for various risk scenarios. This financial resilience protects them from falling into poverty when facing unexpected economic shocks. This protection against poverty carries substantial social value because it reduces the burden on social safety-net systems and prevents the domino effect of one individual's financial difficulties on other family members. By reducing financial vulnerability at the individual level, financial literacy education strengthens social resilience as a whole. Legal safeguards for mitigating investment risk, such as those developed for peer-to-peer lending platforms, reflect the same protective logic that helps individuals limit their exposure to unexpected financial shocks (Sahid et al., 2023).

Financial literacy education facilitates broader participation in the formal financial system through an understanding of the benefits and risks of financial products. Financially literate individuals feel more confident opening bank accounts, enrolling in insurance programs, and investing in capital markets because they understand the mechanisms and protections available. Participation in the formal financial system opens access to various services that can improve welfare, such as productive credit facilities, insurance protection, and long-term investment instruments. Access to productive credit allows individuals to start small businesses, buy a home, or finance their children's education. All of these activities contribute to improved material and non-material welfare over the long term. Financial literacy education thus becomes a bridge between society and an inclusive formal financial system. This expansion of formal financial participation is also visible in the growth of digital sharia finance products developed under sound managerial governance (Putra et al., 2023), and in the way Islamic banking has institutionalized ethical alignment and responsible finance practices (Putra et al., 2022).

Individuals who receive financial literacy education tend to develop long-term financial plans that cover retirement goals, children's education, and investment in productive assets (Beckker et al., 2025). This planning produces greater wealth accumulation compared with individuals who lack systematic financial planning. Wealth accumulation not only provides financial comfort in old age but also creates opportunities for intergenerational social mobility through inheritance and intergenerational transfer. Children from families with good financial planning have greater access to quality education and opportunities for self-development. This intergenerational transfer breaks the cycle of structural poverty and opens a pathway toward sustained improvement in social welfare. The role of financial literacy education in building this intergenerational legacy is often overlooked in evaluations of financial literacy programs. Changes in the nature of work itself, including greater flexibility and new employer-branding practices in the digital era, mean that individuals must continually revisit these long-term financial plans to keep them realistic (Mardikaningsih, 2025).

The mechanism of reducing financial stress is an important, psychologically oriented contribution of financial literacy education to social welfare. Anxiety about money, debt, and future uncertainty is a major source of stress that affects a person's mental health and quality of life. Financial literacy education provides a sense of control and confidence in dealing with financial problems, thereby reducing the level of anxiety and stress individuals experience. This reduction in financial stress has a positive effect on physical and mental health, interpersonal relationships, and work productivity. This improved psychological well-being is an important dimension of social welfare that conventional economic indicators often fail to measure. Financial literacy education thus contributes to a better quality of life through a psychological pathway alongside a material one. This sense of control carries over into the workplace as well, where positive psychological factors have been shown to strengthen employee engagement and commitment to work tasks (Darmawan & Mardikaningsih, 2022).

Financial literacy education also helps reduce destructive financial behavior such as gambling, fraudulent investment schemes, and excessive consumption by building an understanding of risk and consequence. Knowledge of how financial fraud and Ponzi schemes operate makes individuals more alert to investment offers that do not make sense. Understanding the time value of money and opportunity cost helps individuals resist impulsive consumption that damages long-term finances. This reduction in destructive behavior protects individual welfare and also prevents broader social losses caused by the spillover effects of harmful financial practices. Societies with high financial literacy tend to have a healthier and more transparent financial environment. This healthy environment creates conditions that support collective improvement in social welfare. Basic skill in financial ratio analysis, normally used to predict investment returns, gives individuals a practical way to judge whether a promised return is realistic before committing their money (Sinambela & Mauliyah, 2018).

The growing adoption of digital financial technology requires adequate understanding so that it does not pose risks to users' welfare. Financial literacy education equips individuals with the ability to use banking applications, digital wallets, and online investment platforms safely and effectively (Ogunola et al., 2024). Understanding of cybersecurity, personal data protection, and digital transaction mechanisms protects users from fraud and identity theft. The ability to use financial technology also opens opportunities to access cheaper and more efficient financial services, thereby increasing household financial surplus. Financial literacy education that keeps pace with technological development ensures that society is not left behind in benefiting from financial innovation. This technology-based financial inclusion expands access to financial services for groups previously unreached. Electronic money illustrates this trade-off well: it offers convenience and speed, but also carries weaknesses that users need to understand before relying on it as a substitute for cash (Sinambela & Darmawan, 2022). Clear regulation of digital credit within business and financial-market law is equally necessary to keep this technological adoption safe for consumers (Yuristiawan et al., 2024).

Financial literacy education delivered through formal educational institutions has a more lasting influence because it takes place during the period when an individual's character and habits are being formed. Children and adolescents who receive financial literacy education early tend to carry good financial management habits into adulthood. Building habits of saving, spending within a budget, and financial planning from a young age creates a solid foundation for long-term financial welfare. The influence of formal education also reaches across social and economic backgrounds. Financial literacy education in schools therefore becomes an instrument for equalizing opportunity to achieve financial welfare. The compounding effect of these good financial habits will become visible over several decades, as educated generations reach their productive years and retirement. The confidence built through early financial education resembles the self-efficacy that helps employees adapt to technological change in the workplace: both grow from a learned belief in one's own capacity to handle new and unfamiliar situations (Mardikaningsih & Darmawan, 2022).

Improved financial literacy through education contributes to narrowing welfare gaps between social groups by providing equal access to knowledge for all individuals. Welfare gaps are often worsened by unequal access to information and understanding of financial products and services. Systematically delivered financial literacy education reaches groups of society that previously lacked access to financial knowledge. The knowledge gained empowers marginalized groups to make better financial decisions and escape structural poverty traps. This narrowing of the gap contributes to social cohesion and overall societal stability. Financial literacy education therefore not only improves individual welfare but also strengthens social solidarity and fairness.

The effectiveness of financial literacy education's contribution to social welfare depends heavily on the quality and continuity of the educational programs implemented. Education delivered sporadically or at low quality will not produce lasting behavioral change. Financial literacy education programs must be designed as a continuous process, integrated into the education curriculum as a whole. The duration and intensity of educational interventions affect the extent to which knowledge can be internalized and translated into everyday behavior. The success of this contribution mechanism requires commitment from multiple stakeholders, including government, educational institutions, the private sector, and civil society. Synergy among these stakeholders will strengthen the impact of financial literacy education on social welfare.

Overall, the mechanism through which financial literacy education contributes to social well-being operates via mutually reinforcing cognitive, affective, behavioural and structural pathways. Improved financial knowledge triggers changes in attitudes and values, which in turn drive changes in behaviour towards better financial management. These behavioural changes result in asset accumulation, reduced vulnerability and increased participation in the formal financial system, all of which contribute to material and non-material well-being. The impact of education extends from the individual level to the family, community and society as a whole through various multiplier effects. The success of this mechanism requires attention to the quality of education and the continuity of programmes in order to bring about sustainable change. An understanding of this mechanism forms the basis for the development of more effective financial literacy education programmes.

Key Components of Effective Financial Literacy Education

A curriculum component that matches the needs and characteristics of learners is the primary determinant of how effective financial literacy education is as an instrument for improving social welfare. An effective curriculum must cover budgeting, saving, investment, debt management, retirement planning, and insurance protection, adjusted to the level of understanding and developmental stage of the learners. Material that is too theoretical and abstract, without any link to everyday financial experience, will be difficult for learners to grasp and apply. Conversely, material that is too practical without an adequate conceptual foundation will produce a shallow understanding that does not hold up when financial circumstances change (Paul & Knudson, 2023). A good financial literacy curriculum integrates conceptual knowledge with practical application in real life. How closely the curriculum reflects learners' socioeconomic reality determines the extent to which the knowledge gained can be turned into lasting financial behavior. Curriculum development must involve various stakeholders, including educators, financial practitioners, and public representatives. Programs that strengthen digital financial literacy among micro, small, and medium enterprise actors show what this kind of contextually grounded curriculum looks like in practice (Bayhaqi et al., 2024).

Participatory and experiential teaching methods have proven more effective in financial literacy education than conventional, lecture-based, educator-centered methods. Participatory methods involve learners in financial-management simulations, case studies, role play, and budgeting projects that resemble real financial situations (Stebbins & Quito, 2025). Active involvement in the learning process allows learners to test their understanding, make mistakes in a safe setting, and learn directly from experience. Financial-management simulations give a clear picture of the long-term consequences of financial decisions made today. Experiential learning also improves knowledge retention because learners experience firsthand the process and outcome of the financial decisions they make. This approach is effective at closing the gap between knowledge and behavior that often stands as an obstacle in financial literacy education. Use of technology in teaching methods, such as financial-simulation apps and gamification, can increase learner engagement and understanding. Strategies designed to keep employees engaged and knowledgeable amid increasingly automated routine work rely on much the same logic: sustained engagement, not passive exposure to information, is what produces lasting behavioral change (Darmawan, 2024).

Comprehensive assessment and evaluation is a key component for measuring the effectiveness of financial literacy education and for making continuous improvements. Effective evaluation measures not only learners' cognitive knowledge through written tests but also changes in their financial attitudes and behavior over the long term. Knowledge can be measured through standardized financial literacy instruments that test understanding of key concepts such as compound interest, inflation, and risk diversification. Measuring financial attitudes covers aspects such as risk tolerance, future orientation, and confidence in one's own ability to manage money. Measuring financial behavior, the hardest of the three, requires observation or self-reporting on sustained saving habits, budgeting, and debt management. Overall program evaluation needs to look at education's impact on welfare indicators such as savings rates, asset ownership, and financial resilience. Evaluation results must be used systematically to improve the curriculum and teaching methods in the next cycle. Measuring outcomes in the digital era also means accounting for creativity and human judgment rather than relying on standardized output alone (Darmawan, 2023), and treating evaluation results as a knowledge asset that feeds systematically back into program design strengthens this improvement cycle (Darmawan, 2023).

The competence of educators or facilitators in delivering financial literacy material has a significant influence on the effectiveness of the education provided. A competent educator needs not only adequate financial knowledge but also the pedagogical skill to present material in a way that is engaging and easy to understand. The ability to connect financial concepts to learners' everyday experience and to answer practical questions about money matters a great deal in the learning process (Chabaefe & Qutieshat, 2024). Educators with direct experience managing their own or professional finances can offer concrete examples relevant to learners' situations. Building educator competence through ongoing training and access to up-to-date learning resources is an important investment in financial literacy programs. Certification or competency standards for financial literacy educators can help ensure consistent teaching quality across institutions. Institutional support for educators' professional development also determines the long-term sustainability of financial literacy programs. Building this kind of competence calls for balancing the speed of technological tools with a depth of humanistic understanding, so that educators do not trade pedagogical judgment for efficiency alone (Darmawan, 2023).

A supportive learning environment strongly affects the effectiveness of financial literacy education, including support from family, peers, and the surrounding social circle. Learners who receive support for applying financial knowledge at home find it easier to adopt healthy financial behavior. Parents with a good financial understanding can reinforce material taught at school through everyday family financial practices. A peer environment that values responsible financial behavior creates social norms that support the application of financial knowledge. Access to affordable, transparent financial products and services allows learners to put their knowledge into practice. Financial literacy programs that involve family and the surrounding social circle in the learning process produce a broader and more lasting impact. Involving multiple parties in the learning environment creates an ecosystem that reinforces individual financial behavior change. How an environment shapes daily habits shows up elsewhere too: shifts in work arrangements have been found to affect psychological well-being and social relationships, a reminder of how much surrounding conditions shape behavior beyond formal instruction (Darmawan, 2023).

The duration and intensity of a financial literacy program determine the extent to which knowledge can be internalized and turned into lasting habits. Programs run for a short time at low intensity tend to produce knowledge gains that fade quickly and behavior that reverts to previous patterns. Effective financial literacy education needs enough time to allow material to be repeated and reinforced gradually (Augustin & Martin, 2023). Repeating key concepts through different methods and in different contexts helps strengthen understanding and retention. Adequate program duration also gives learners room to practice their knowledge in real financial situations and reflect on the results of that practice. Financial literacy education integrated into the school curriculum over several years produces a greater impact. Short programs remain useful if designed with high intensity and followed up through media or further activities.

Involvement of stakeholders from various sectors is an important component in designing and running effective financial literacy education. The education sector is responsible for curriculum development and delivery, while the financial sector can provide technical expertise and practical resources. Government sets policy and standards and provides funding and infrastructure for financial literacy programs. Civil-society organizations can reach marginalized groups not served by formal educational institutions and help adapt programs to local needs. Private-sector involvement through corporate social responsibility programs can extend the reach and raise the quality of financial literacy education. Coordination among stakeholders requires effective communication and collaboration mechanisms to avoid overlap and make the best use of available resources. The success of financial literacy education depends heavily on the collective commitment of all stakeholders involved.

Adapting to the specific needs of vulnerable groups is a key component in ensuring that financial literacy education benefits every layer of society. Low-income groups, women, older adults, and people with disabilities each face different financial needs and challenges that must be accommodated in education programs. Material and teaching methods need to be adjusted to the target group's level of education, access to technology, and financial experience. Financial literacy education for vulnerable groups should focus on practical skills that can be applied immediately to improve their financial condition (Gurung et al., 2025). Low-income groups may need more understanding of managing a tight budget, accessing social assistance, and protection from exploitative financial practices. Women may need an approach that accounts for their dual role in managing household finances and the social and cultural barriers they face. An inclusive approach attentive to specific needs will maximize financial literacy education's contribution to narrowing welfare gaps. Older workers navigating new digital tools and women balancing multiple roles both show how technology can either widen or narrow existing gaps, depending on whether its adoption is designed with inclusion in mind (Darmawan, 2023; Darmawan, 2024).

Use of technology and digital media in financial literacy education is becoming an increasingly important component as the financial sector and people's lifestyles grow more digital. Online learning platforms, mobile apps, and social media provide effective channels for reaching learners with different backgrounds and learning preferences. Technology allows learning to be personalized to each individual's knowledge level, pace, and interests. Personal finance-management apps can serve as practical learning tools because learners can use them in daily life. Gamification in financial literacy education uses game elements such as points, levels, and challenges to boost learner motivation and engagement. Technology also allows real-time collection of data on learner progress for more accurate evaluation. Even so, the use of technology must account for the digital-access gap that still exists across different groups in society. Social media has proven to be an effective channel for reaching audiences at scale in much the same way it works for online business promotion, which suggests it can carry financial knowledge just as effectively (Infante & Mardikaningsih, 2022). Because these platforms and apps collect personal data, safeguarding that data becomes part of using them responsibly: emerging safeguards such as blockchain-based protection of user data (Costa et al., 2023), stronger cybersecurity practice (Gardi & Eddine, 2023), legal protection for fintech consumers (Halizah & Mardikaningsih, 2024), and privacy treated as a basic right (Issalillah & Hardyansah, 2024) all point to the same need for users to understand how their data is handled.

A competency-based approach that emphasizes building practical ability is more effective than a content-based approach that focuses only on mastering material. A competency approach in financial literacy emphasizes what learners can do with the knowledge they have, not just what they know. The competencies developed include the ability to build a budget, compare financial products, calculate the effect of interest, and plan savings toward a specific goal (Tomashpayev & Nurgalieva, 2024). Each competency is broken down into behavioral indicators that can be observed and measured clearly. This approach lets learners see the direct relevance of what they study to their everyday life. Competency-based assessment is carried out through demonstrated ability in situations resembling real conditions, not only written tests. A competency approach also makes it easier to build a structured, staged curriculum that matches learners' developing ability. This applies directly to financial literacy: a student's risk tolerance, combined with their level of financial understanding, has been shown to shape actual investment decisions (Mardikaningsih & Darmawan, 2023), and a similar pattern appears among Generation Z, where financial literacy and financial awareness together shape investment behavior (Issalillah, 2024).

Reinforcing financial literacy through practical experience outside the classroom, such as school savings programs or student cooperative management, rounds out theoretical learning with real practice. School savings programs give learners a chance to practice regular saving discipline and feel the benefit of accumulated savings. Managing a student cooperative teaches budgeting, financial record-keeping, profit-sharing, and collective decision-making in a financial context. Visits to financial institutions and meetings with financial practitioners give insight into how the financial system works and career opportunities in the field. Projects managing family finances or a small business give direct experience in financial planning and decision-making. This practical experience reinforces conceptual understanding and better prepares learners for financial challenges ahead. Integrating classroom learning with practical experience creates financial literacy education that is comprehensive and meaningful. Designing this kind of collective, hands-on setting well also means paying attention to participants' well-being, much as organizations are now expected to treat mental health as part of how a work environment is designed (Issalillah & Khayru, 2025).

Continuity and sustainability of financial literacy programs require careful planning and long-term commitment from all stakeholders (Jin et al., 2025). Project-based programs or those reliant on donor funding often stop once the funding runs out, so the impact produced does not last. Program sustainability requires integrating financial literacy into the formal education curriculum and the national education system as a whole. Sustainable funding can come from government budget allocations, partnerships with the private sector, or other innovative financing mechanisms. Building local capacity and local ownership of the program increases the likelihood of long-term sustainability. Ongoing program documentation and evaluation provides evidence for advocacy and improvement. Program sustainability also requires adapting to changing social, economic, and technological conditions to stay relevant to people's needs. Sustainability principles applied in other sectors point to similar success factors: operational practices built around long-term responsibility rather than short-term output tend to hold up better over time (Barzani et al., 2022), and structures flexible enough to adapt to a changing environment are better positioned to keep functioning as conditions shift (Darmawan & Mardikaningsih, 2023).

Assessing long-term impact on social welfare is a component often overlooked in the design of financial literacy education, even though it is essential for demonstrating a program's effectiveness (Beckker et al., 2025). Long-term impact assessment requires indicators that can be measured objectively and compared over time, such as savings rates, asset ownership, financial resilience, and quality of life. Longitudinal data collection following learners over several years is needed to capture education's impact on their welfare. Impact assessment must also account for spillover effects on learners' family members and surrounding social circle. Rigorous impact-assessment methods, such as quasi-experimental designs or longitudinal case studies, provide more convincing evidence of a program's effectiveness. The results of long-term impact assessment form the basis for policymaking and resource allocation in financial literacy education. This component ensures that investment in financial literacy education genuinely produces a measurable improvement in social welfare. **Building this kind of data-driven capacity mirrors what is needed elsewhere too: stronger analytical capability improves the quality of decisions made from complex information, whether inside an organization or in evaluating a program's long-term reach (Khairi & Darmawan, 2022).

The effectiveness of financial literacy education as a means of improving social welfare is determined by the interaction of various key, mutually supportive components. A relevant curriculum, participatory teaching methods, comprehensive assessment, the competence of educators, a supportive learning environment, an adequate programme duration, and stakeholder engagement are factors that work together. Adaptation to the needs of vulnerable groups, the use of technology, a competence-based approach, practical experience, programme sustainability, and long-term impact assessment complement these key components. Each component plays a specific role in the chain of influence from education to improved social welfare. A weakness in one component can reduce the overall effectiveness of the programme, even if the other components are sound. The development of an effective financial literacy programme requires balanced attention to all these key components. An understanding of these components provides guidance for the design of targeted educational interventions that maximise impact.

Conclusion

Financial literacy education has great potential to improve social welfare through complex and layered mechanisms, starting from increasing financial knowledge which then changes individual attitudes and financial behavior, ultimately impacting household economic stability and reducing financial vulnerability. The effectiveness of financial literacy education is largely determined by interrelated key components, encompassing a curriculum relevant to learners' needs, participatory and experience-based teaching methods, evaluations that comprehensively measure changes in knowledge, attitudes, and behavior, as well as adequate educator competence. The success of financial literacy programs also depends on learning environment support, sufficient program duration and intensity, the involvement of various stakeholders, and adaptation to the needs of vulnerable groups in society. The utilization of digital technology, competency-based approaches, the integration of practical experiences, program sustainability, and long-term impact assessment on social welfare are additional components that strengthen the effectiveness of financial literacy education. This conclusion confirms that financial literacy education is not merely a transfer of knowledge, but a transformative process that requires careful design and systematic implementation to achieve the desired goals of improving social welfare.

The implications of these research findings for educational policy include the need to strengthen the financial literacy curriculum at all levels of formal education with an emphasis on developing practical competencies and integrating experiential learning. The government needs to develop competency standards for financial literacy educators and provide sustainable training programs to ensure consistent teaching quality across educational institutions. Financial institutions and the private sector can contribute through the provision of learning resources, technical expertise, and internship or practical programs that enrich learners' learning experiences. The evaluation of financial literacy programs must be expanded from short-term knowledge measurement to the assessment of long-term impacts on social welfare indicators, which requires the development of more sophisticated monitoring and evaluation systems. Financial literacy programs need to be designed with an inclusive approach that pays attention to the needs of vulnerable groups and marginalized communities so that the benefits of education can be felt equitably. Collaboration among stakeholders, ranging from the government, educational institutions, the financial sector, to civil society organizations, must be strengthened through effective coordination mechanisms to create a sustainable financial literacy ecosystem.

Educational practitioners are advised to adopt competency-based and experiential learning approaches in designing financial literacy programs, as well as involving families and communities in the learning process to strengthen the impact of education. Educational institutions are advised to integrate financial literacy into the curriculum across subjects and provide opportunities for learners to practice their knowledge through school savings programs, student cooperatives, or other financial management projects.

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