HATTA: Jurnal Pendidikan Ekonomi dan Ilmu Ekonomi
Volume 3 (2) Oktober 2025
ISSN: 3031-7576 (Print) / ISSN: 3031-7568 (Online)
Doi: https://doi.org/10.62387/hatta.v4i1.562
https://jurnal.stkip-majenang.ac.id/index.php/hatta

Digital Financial Literacy as a Missing Link Between Fintech Adoption and Financial Well-Being: A Narrative Literature Review

Makhrus Ali[1*], Sukawati[2], Ratna Himawati[3], Tria Mei Diana[4]

[1, 2, 3, 4] STAI Ibnu Rusyd Kotabumi Lampung, Indonesia
[*]Email Korespondensi: muhammadali2518@gmail.com

ABSTRACT

The rapid expansion of financial technology (FinTech) has transformed financial service accessibility and participation; however, increased adoption does not necessarily guarantee improved financial well-being. This study aims to examine the role of digital financial literacy in bridging the relationship between FinTech adoption and financial well-being through a narrative literature review. A total of 19 selected empirical and conceptual scholarly publications from 2020 to 2025 were critically reviewed and synthesized using a thematic approach, integrating perspectives from the Technology Acceptance Model, financial capability theory, and the capability approach. The findings indicate that digital financial literacy constitutes a multidimensional capability encompassing financial knowledge, digital competencies, risk awareness, and responsible financial decision-making. These competencies may strengthen financial behavior, enhance financial resilience, and reduce vulnerabilities associated with digital financial services. Furthermore, socioeconomic characteristics, institutional trust, and consumer protection mechanisms influence how individuals translate FinTech participation into meaningful financial outcomes. This review proposes an integrative conceptual framework positioning digital financial literacy as an enabling and potentially moderating factor in the relationship between FinTech adoption and financial well-being. The study highlights the importance of integrating digital financial education, responsible FinTech innovation, and inclusive regulatory policies to promote sustainable financial well-being.

ABSTRAK

Perkembangan pesat teknologi finansial (FinTech) telah mengubah aksesibilitas dan partisipasi dalam layanan keuangan; namun, peningkatan adopsi tidak serta-merta menjamin kesejahteraan keuangan yang lebih baik. Studi ini bertujuan untuk mengkaji peran literasi keuangan digital dalam menjembatani hubungan antara adopsi FinTech dan kesejahteraan keuangan melalui tinjauan pustaka naratif. Sebanyak 19 artikel empiris dan konseptual pilihan terbitan 2020–2025 ditinjau secara kritis dan disintesis menggunakan pendekatan tematik, dengan mengintegrasikan perspektif dari Technology Acceptance Model (Model Penerimaan Teknologi), teori kapabilitas keuangan, dan pendekatan kapabilitas (capability approach). Temuan menunjukkan bahwa literasi keuangan digital merupakan kapabilitas multidimensi yang mencakup pengetahuan keuangan, kompetensi digital, kesadaran akan risiko, serta pengambilan keputusan keuangan yang bertanggung jawab. Kompetensi-kompetensi ini dapat memperkuat perilaku keuangan, meningkatkan ketahanan finansial, dan mengurangi kerentanan yang terkait dengan layanan keuangan digital. Selain itu, karakteristik sosial-

ARTICLE HISTORY
Received: 1 Oktober 2025
Accepted: 27 Desember 2025
Published: 30 Desember 2025

KEYWORDS:
Digital Financial Literacy; FinTech Adoption; Financial Well-Being.

KATA KUNCI:
Literasi Keuangan Digital; Adopsi Teknologi Finansial; Kesejahteraan Keuangan.

ekonomi, kepercayaan terhadap institusi, dan mekanisme perlindungan konsumen memengaruhi bagaimana individu menerjemahkan partisipasi dalam FinTech menjadi hasil keuangan yang bermakna. Tinjauan ini mengusulkan kerangka konseptual integratif yang menempatkan literasi keuangan digital sebagai faktor pendukung sekaligus faktor yang berpotensi memoderasi hubungan antara adopsi FinTech dan kesejahteraan keuangan. Studi ini menekankan pentingnya mengintegrasikan pendidikan keuangan digital, inovasi FinTech yang bertanggung jawab, serta kebijakan regulasi yang inklusif guna mendorong kesejahteraan keuangan yang berkelanjutan.

INTRODUCTION

The rapid development of financial technology (FinTech) has fundamentally transformed the delivery, accessibility, and consumption of financial services worldwide. Digital payment systems, mobile banking applications, peer-to-peer lending platforms, and digital investment services have created new opportunities for individuals to participate in increasingly interconnected financial ecosystems. These innovations have become particularly relevant in emerging economies, where conventional financial infrastructure has historically limited access to formal financial services. Nevertheless, the expansion of digital financial access has also introduced challenges related to financial decision-making, consumer vulnerability, cybersecurity, and responsible financial behavior. Panos & Wilson emphasized that the expansion of financial technology requires greater attention to financial literacy and responsible finance, particularly as technological innovation creates both opportunities and risks for consumers [1] .

FinTech adoption is frequently associated with improved financial inclusion, transaction efficiency, and access to financial products and services. However, technological accessibility alone does not guarantee that individuals will achieve financial stability, security, or long-term financial satisfaction. Individuals may actively use digital financial platforms while simultaneously experiencing excessive borrowing, impulsive consumption, financial fraud, or inadequate financial planning. Lyons et al. examining financial and digital literacy across South Asian and Sub-Saharan African countries, demonstrated the importance of both competencies in supporting resilience-building financial behaviors [2] . Their findings suggest that the benefits of digital financial inclusion depend not merely on access to technology but also on individuals' capabilities to manage financial resources effectively.

Importantly, the relationship between FinTech adoption and financial well-being is deeply shaped by structural disparities between emerging and developed economies. In advanced economies, digital financial ecosystems operate within mature institutional frameworks characterized by robust consumer protection regulations, widespread digital infrastructure, and relatively high baseline levels of financial literacy. By contrast, many emerging economies have witnessed rapid FinTech expansion that has often outpaced the development of supporting infrastructure, regulatory oversight, and consumer safeguards. Uneven internet connectivity, limited digital identity systems, and fragmented financial education initiatives in these contexts create structural barriers that constrain individuals' ability to convert technological access into meaningful financial outcomes.

Furthermore, the regulatory environments governing digital financial services differ markedly across these contexts. Developed economies typically enforce comprehensive data protection laws, transparent disclosure requirements, and well-established dispute resolution mechanisms, whereas emerging economies frequently rely on evolving regulatory frameworks that may lack enforcement capacity or fail to address the specific risks of digital credit, algorithmic lending, and cross-border digital transactions. These institutional asymmetries mean that the same FinTech application may produce substantially different welfare implications depending on the jurisdictional context, underscoring the need for analytical frameworks that explicitly account for structural and regulatory heterogeneity rather than treating FinTech adoption as a context-neutral phenomenon.

Digital financial literacy has consequently emerged as an important concept at the intersection of financial knowledge, digital competencies, and consumer financial behavior. Unlike conventional financial literacy, which primarily concerns understanding financial concepts and making informed financial decisions, digital financial literacy additionally involves the ability to evaluate digital financial products, navigate electronic financial platforms, recognize cybersecurity threats, and protect personal financial information. Koskelainen

et al. identified financial technology, financial behavior in digital environments, and behavioral interventions as important dimensions of financial literacy research in the digital age [3]. Similarly, Choung et al. reported a positive association between digital financial literacy and financial well-being among Korean adults, highlighting the importance of financial knowledge and protection against digital fraud [4]. These findings indicate that digital financial literacy represents a multidimensional capability that may influence how technological financial opportunities are translated into meaningful financial outcomes.

Despite increasing scholarly attention to FinTech adoption and digital financial literacy, the relationship between technological engagement and financial well-being remains theoretically fragmented. Existing studies have frequently examined technology acceptance, financial inclusion, financial literacy, and financial behavior through separate analytical frameworks, potentially obscuring the mechanisms connecting these constructs. For example, Abdurrahman & Nugroho (2024) examined relationships among digital financial literacy, financial technology, financial confidence, financial behavior, and financial well-being, demonstrating the relevance of multiple interconnected pathways [5]. However, findings from individual empirical contexts do not necessarily establish whether digital financial literacy consistently functions as an antecedent, mediator, moderator, or independently influential capability across different populations. More critically, much of the existing evidence is drawn from advanced economies with mature regulatory ecosystems, leaving a significant gap in understanding how digital financial literacy operates in emerging economies where consumer protection mechanisms, institutional trust, and digital infrastructure remain underdeveloped. This contextual asymmetry limits the generalizability of current findings and obscures the specific mechanisms through which structural and regulatory differences shape financial outcomes. This creates a need for an integrative synthesis that distinguishes the conditions under which FinTech adoption may contribute to improved financial well-being from those under which digital financial risks may undermine its potential benefits, particularly across heterogeneous institutional and socioeconomic settings.

Against this background, the present study aims to critically synthesize existing literature on the relationships among FinTech adoption, digital financial literacy, and financial well-being through a narrative literature review. Drawing on the Technology Acceptance Model, financial capability perspectives, and the capability approach, the review examines how digital financial competencies interact with technology use, financial behavior, and contextual conditions. Specifically, it explores whether digital financial literacy serves as an enabling capability that strengthens the conversion of FinTech access into financial security, resilience, and perceived financial well-being. The study contributes to the literature by proposing an integrative conceptual framework that moves beyond adoption-centered explanations toward a capability-oriented understanding of digital financial outcomes. Its findings are intended to inform future empirical research, digital financial education initiatives, consumer protection strategies, and the development of more inclusive financial technology ecosystems.

RESEARCH METHODOLOGY

This study employed a narrative literature review to critically examine and synthesize the relationships among FinTech adoption, digital financial literacy, and financial well-being. A narrative review approach was selected because the research integrates multidisciplinary theoretical perspectives and empirical findings characterized by diverse conceptual definitions, methodological designs, geographical contexts, and outcome measurements. The literature identification strategy focused on peer-reviewed journal articles published primarily between 2020 and 2025, while allowing the inclusion of earlier seminal publications essential to the theoretical foundation. Relevant publications were identified through exploratory academic searches using SciSpace and Consensus, with search concepts including "digital financial literacy," "FinTech adoption," "financial well-being," "financial capability," "digital financial inclusion," "financial resilience," and "responsible financial behavior." Studies were considered relevant when they examined at least one substantive relationship among digital financial technologies, financial competencies, financial behaviors, financial inclusion, or individual financial outcomes.

Inclusion and Exclusion Criteria

To ensure the rigor and transparency of the review process, explicit inclusion and exclusion criteria were established prior to literature screening, as summarized in Table 1. These criteria were designed to capture

studies that directly engage with the core constructs of this review while excluding publications that fall outside the conceptual or empirical scope of the research question.

Table 1. Inclusion and Exclusion Criteria for Literature Selection

Criterion	Inclusion	Exclusion
Publication type	Peer-reviewed journal articles and scholarly book chapters	Editorials, opinion pieces, conference abstracts, non-peer-reviewed reports
Publication period	Primarily 2020–2025; seminal works prior to 2020 retained only when foundational to theory (e.g., TAM, capability approach)	Publications predating 2010 unless cited as core theoretical foundations
Language	English and Bahasa Indonesia	Articles in other languages without accessible translations
Journal reputation	Indexed in Scopus, Sinta (minimum Sinta 2), DOAJ, or equivalent reputable databases	Predatory journals or unindexed publications
Topical focus	Studies explicitly addressing at least one relationship among FinTech adoption, digital financial literacy, financial behavior, financial resilience, or financial well-being	Studies focused solely on technical aspects of FinTech (e.g., blockchain architecture) without engagement with user-level financial outcomes
Geographical scope	Global, with particular attention to emerging and developed economies	Single-context studies lacking transferable insights for cross-contextual synthesis
Methodological design	Empirical (quantitative, qualitative, mixed-methods) and conceptual/theoretical studies	Purely descriptive reports without analytical or theoretical contribution

Literature Selection Flow

The selection process followed a structured and transparent procedure adapted from the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework, as illustrated in Figure 3. The process comprised four stages: identification, screening, eligibility assessment, and final inclusion.

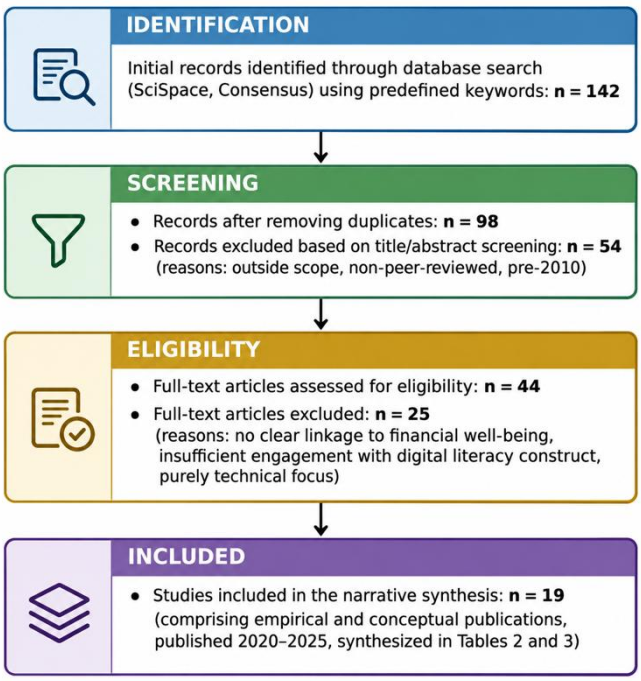

Figure 1. Literature Selection Flow Diagram

The thematic synthesis was then conducted using a theory-informed analytical approach to identify recurring findings, conceptual inconsistencies, explanatory mechanisms, and potential research gaps. The analytical process was organized around four interrelated themes: FinTech adoption and financial accessibility, digital financial literacy as an enabling capability, behavioral pathways connecting technology use to financial well-being, and contextual conditions shaping financial outcomes. Particular attention was given to differences in research populations, institutional environments, financial technology applications, and conceptual measurements to avoid treating heterogeneous findings as universally applicable. The Technology Acceptance Model, financial capability perspectives, and the capability approach provided complementary theoretical lenses for interpreting how technological access may be transformed into beneficial financial outcomes. Rather than conducting statistical meta-analysis or claiming exhaustive systematic coverage, the review developed an interpretive synthesis and an integrative conceptual framework intended to guide subsequent empirical investigation.

RESULT AND DISCUSSION

The Transformation of Financial Services and the Paradox of FinTech Adoption

The rapid expansion of financial technology has transformed financial services access and inclusion, particularly in emerging economies, by reducing barriers related to geography, costs, and complexity. However, increased participation in digital financial ecosystems does not automatically lead to improved financial well-being. The Technology Acceptance Model explains initial adoption through perceived usefulness and ease of use but fails to address long-term financial consequences [6]. Hurani et al. emphasize that the FinTech revolution presents both opportunities and challenges, arguing that technological innovation should be evaluated through the quality of financial decisions and consumer protection rather than adoption rates alone [7]. This distinction between accepting technology and using it to improve financial well-being is crucial, as individuals may find applications convenient while lacking knowledge to assess risks and obligations.

Empirical evidence supports separating digital financial participation from meaningful financial improvement. Sari et al. and Sarlawa found that financial and digital literacy are essential for resilience-building behaviors, though their impact varies across regions and socioeconomic groups [8], [9]. Similarly, Prihandini and Pawenang et al. demonstrated that digital capabilities and financial resilience are critical for meaningful participation in digital financial services in Malaysia and Indonesia [10], [11]. These findings reveal a "FinTech adoption–financial well-being paradox," where convenient digital services may increase accessibility without necessarily improving long-term financial conditions, and may even encourage excessive borrowing or inappropriate risk-taking when users lack adequate financial literacy and institutional safeguards.

Digital Financial Literacy as a Multidimensional Financial Capability

Digital financial literacy (DFL) has emerged as a critical concept that extends beyond conventional financial knowledge by incorporating the specific competencies required to navigate technology-mediated environments, such as identifying fraud and protecting personal data. Unlike simple technological familiarity, DFL combines financial understanding with digital competence, critical judgment, and protective behavior. Koskelainen et al. argue that financial literacy must evolve alongside technological changes, emphasizing that traditional indicators often fail to capture necessary skills like evaluating digital lending or recognizing cybersecurity threats [3]. Consequently, measurement and education must integrate both conventional knowledge and technology-specific competencies. Supporting this view, Muat et al. provided empirical evidence that DFL positively impacts financial well-being through both productive capabilities (effective service use) and protective capabilities (avoiding harmful transactions), demonstrating its importance across various sociodemographic groups [12].

The concept of DFL is further illuminated by the financial capability perspective and the capability approach, which suggest that possessing knowledge or access to resources (like FinTech platforms) does not automatically guarantee positive outcomes without the ability to apply them effectively within specific environmental constraints. Abdurrahman & Nugroho examined these dynamics, finding that DFL is interconnected with financial technology use, confidence, and behavior, operating within a broader system of

competencies rather than in isolation [5]. This complexity suggests that DFL can occupy multiple theoretical positions: it may act as an antecedent that drives technology adoption, a moderator that determines whether FinTech use leads to beneficial or harmful results, or a skill that develops reciprocally through platform engagement. Future research must distinguish between these roles to fully understand how digital literacy translates into financial well-being.

Table 2. Conceptual Dimensions of Digital Financial Literacy and Their Implications for Financial Well-Being

Dimension	Core competencies	Potential contribution to financial well-being
Financial knowledge	Interest rates, inflation, debt, savings, investment risk	More informed financial decisions
Digital operational literacy	Using mobile banking, e-wallets, and financial applications	More effective access and financial management
Digital risk awareness	Recognizing fraud, phishing, misleading offers, and privacy risks	Reduced financial vulnerability
Critical financial evaluation	Comparing products, fees, terms, and platform credibility	Improved product suitability
Digital financial self-management	Budgeting, tracking expenses, monitoring debt	Greater financial control
Consumer rights awareness	Understanding complaints, data protection, and financial regulations	Stronger consumer protection

Financial Behavior as a Mechanism Connecting FinTech Adoption and Financial Well-Being

The literature emphasizes that financial behavior is the critical link translating digital financial capabilities into actual well-being. While financial technologies provide the tools for managing resources, the ultimate outcomes depend heavily on individual decisions regarding saving, debt, and risk. There is a significant distinction between acquiring financial knowledge and implementing it, a gap that is particularly pronounced in digital environments where the speed of transactions often reduces the time available for reflective decision-making. Chhillar et al. explored these dynamics in India, finding that digital financial literacy is connected to financial management and stress levels, thereby highlighting that financial well-being encompasses psychological security and perceived control, not just objective financial resources [13]. Similarly, Aristei & Gallo identified financial confidence and behavior as essential pathways, noting that while confidence encourages decision-making, it must be grounded in actual competence to prevent inappropriate risk-taking [14].

From a behavioral finance perspective, financial decisions are frequently shaped by cognitive biases, emotional responses, and platform designs that may encourage impulsive spending through notifications or simplified processes. Digital financial literacy serves as a protective factor, helping individuals recognize these influences and adopt more deliberate financial practices, although knowledge alone may not fully overcome behavioral biases embedded in app designs. Consequently, financial behavior acts as a plausible mediating mechanism between literacy and well-being; individuals with stronger digital competencies are better equipped to compare products, manage obligations, and avoid fraud, which fosters financial resilience and reduces stress. However, the effectiveness of this mediation is likely influenced by contextual factors such as income stability and household responsibilities, indicating that future research must account for these variables to fully understand how digital literacy translates into sustainable financial health.

Financial Resilience, Digital Financial Risks, and Consumer Vulnerability

Financial resilience serves as a crucial mechanism linking digital financial literacy to broader financial well-being, acting as the capacity to withstand economic shocks and recover from adversity. Lyons et al. demonstrated that both financial and digital competencies are essential for resilience-building behaviors, such as effective saving, borrowing, and risk management, as the mere availability of digital tools is insufficient without responsible use [2]. Furthermore, the complexity of digital ecosystems introduces vulnerabilities like phishing and identity theft, making protective skills vital. Prawitasari and Prihandini emphasized that digital fraud protection is a core component of financial capability, extending traditional financial literacy beyond interest rates and inflation to include cybersecurity awareness, though institutional and regulatory safeguards remain equally important for overall consumer safety [15], [16].

The relationship between these factors is dynamic and context-dependent. Sabri et al. illustrated this in Malaysia and Indonesia, showing that financial resilience, digital capabilities, and FinTech adoption interact in potentially reciprocal ways where resilient individuals are better equipped to use digital services, and those services in turn foster resilience [17]. This complexity highlights the limitations of assuming single causal pathways from cross-sectional data. Ultimately, digital financial literacy must be conceptualized as having dual functions: an *enabling* capability that facilitates productive financial activities like budgeting and investing, and a *protective* capability that manages digital risks. Balancing these two functions is essential for translating digital financial participation into sustainable financial well-being.

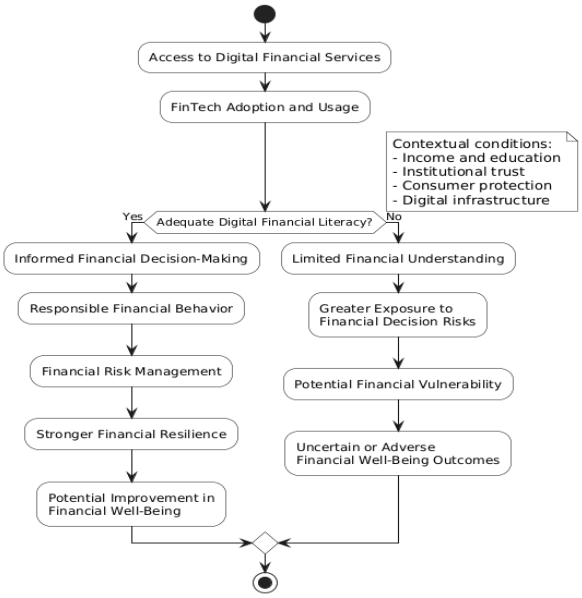

Figure 2. Capability Conversion Pathway from FinTech Access to Financial Well-Being

Algorithmic Finance, AI-Driven Credit Scoring, and Emerging Digital Vulnerabilities

The rapid integration of artificial intelligence (AI) into financial services has introduced new challenges that conventional digital financial literacy frameworks have not adequately addressed. AI-driven credit scoring, algorithmic lending, automated investment recommendations, and Buy Now, Pay Later (BNPL) services create financial opportunities while exposing users to algorithmic bias, excessive borrowing, and discriminatory practices. Behavioral data used in automated credit assessments may disadvantage vulnerable populations, reinforcing socioeconomic inequalities despite expanding financial access. Meanwhile, the convenience of BNPL services can encourage impulsive consumption and debt accumulation, particularly among younger consumers. These developments highlight the importance of algorithmic literacy in understanding automated financial decisions, data profiling, and the risks associated with digital lending platforms.

Furthermore, information asymmetry between AI-driven financial platforms and consumers increases vulnerability to manipulative interface designs, biased recommendations, and commercial practices that prioritize profitability over financial well-being. Digital financial literacy must therefore extend beyond technological proficiency to include critical awareness of algorithmic transparency, data privacy, consumer protection, and responsible financial decision-making. As emphasized by Sabri et al., the relationship between digital capabilities, behavioral resilience, and financial inclusion is context-dependent, suggesting that AI-enabled financial services may benefit informed users while increasing risks for those with limited digital competencies [17]. Consequently, integrating AI-specific knowledge and critical evaluation skills into digital financial literacy frameworks is essential to promoting equitable financial inclusion, strengthening consumer resilience, and ensuring sustainable financial well-being.

Socioeconomic Inequality and Institutional Conditions in Digital Financial Well-Being

The relationship between digital financial literacy and financial well-being is heavily influenced by broader socioeconomic and institutional conditions, meaning that technology adoption does not guarantee

equal outcomes for all users. Structural factors such as income levels, education, employment stability, and digital infrastructure dictate an individual's actual ability to benefit from financial services. Umeaduma & Umeaduma highlighted this heterogeneity, noting that economically disadvantaged populations, rural households, and women often face structural barriers such as unreliable infrastructure or insufficient income that prevent them from translating financial knowledge into tangible outcomes like emergency savings [18]. Thus, financial competencies must be evaluated within the context of these broader socioeconomic circumstances rather than attributing financial outcomes solely to individual knowledge or behavior.

Institutional frameworks and regulatory environments further mediate the effectiveness of digital financial literacy. Strong consumer protections, transparent pricing, and effective fraud prevention are essential for reducing risks, whereas weak regulations can undermine the benefits of literacy, particularly in complex services like digital credit. Kamis reinforced this through comparative research in Malaysia and Indonesia, demonstrating that national environments defined by differences in regulatory development, digital infrastructure, and financial markets significantly impact digital capabilities and financial resilience [19]. Consequently, financial literacy interventions cannot be one-size-fits-all; they must be tailored to specific demographic needs (e.g., young adults versus older adults) and supported by inclusive policies that address structural inequalities, ensuring that digital financial literacy translates into genuine well-being across diverse populations.

Integrating the Evidence: Digital Financial Literacy as the Missing Link

The review argues that the relationship between FinTech adoption and financial well-being cannot be adequately explained by technology acceptance models alone, as existing literature often examines financial literacy, behavior, and resilience in isolation. To address this fragmentation, the text proposes an integrated capability-based framework that distinguishes between mere technological access and effective financial capability. Central to this framework is the moderating role of digital financial literacy: under conditions of high literacy, FinTech adoption is linked to productive financial management and positive outcomes, whereas limited literacy may expose users to greater financial vulnerability. Additionally, the framework posits that financial behavior and resilience function as sequential mechanisms, where literacy supports responsible decisions (like budgeting and saving) that build resilience and ultimately contribute to financial well-being, though reciprocal relationships are also acknowledged.

From a theoretical perspective, the framework integrates the Technology Acceptance Model (TAM) with financial capability perspectives and the capability approach, advocating for a shift from adoption-centered evaluations to outcome-oriented assessments of digital financial participation. This integration carries significant practical implications for policymakers, educators, and industry stakeholders. It suggests that financial inclusion strategies must prioritize the quality and sustainability of financial outcomes over simple access metrics. Consequently, financial education should blend conventional knowledge with digital competencies and consumer protection awareness, while FinTech providers and regulators must ensure transparent product information, robust security mechanisms, and safeguards against fraud. These complementary interventions are essential to foster financial ecosystems where technological innovation genuinely supports meaningful participation and sustainable well-being.

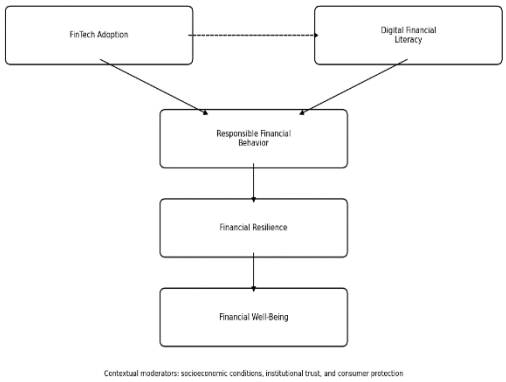

Figure 3. An Integrative Conceptual Framework of FinTech Adoption, Digital Financial Literacy, and Financial Well-Being

Research Gaps and Directions for Future Research

Despite growing scholarly attention, significant conceptual and methodological gaps remain regarding digital financial literacy and FinTech adoption. Key uncertainties include the directionality of the relationship whether literacy drives technology adoption or if engagement fosters experiential learning as well as inconsistent measurement frameworks that often conflate financial well-being with related concepts like financial inclusion or resilience. To address these limitations, future research should employ longitudinal and experimental designs to establish causality and clarify the moderating and mediating roles of digital literacy. Additionally, cross-country comparative studies are essential to understand how varying institutional conditions, consumer protection arrangements, and socioeconomic inequalities influence the effectiveness of financial literacy across different contexts.

The rapid evolution of digital financial services, including AI-based recommendations, automated investments, and algorithmic lending, introduces new forms of financial vulnerability. Consequently, future research must determine whether existing literacy measures adequately capture the competencies needed to evaluate algorithmic decisions and manage data privacy risks. Ultimately, the review concludes that digital financial literacy is a context-dependent capability rather than a universal causal determinant. Its primary contribution is an integrated framework demonstrating how financial knowledge, digital competencies, responsible behavior, resilience, and institutional conditions interact, shifting the analytical focus from mere technological participation to the effective conversion of digital opportunities into sustainable financial well-being.

Table 3. Synthesis of Relevant Empirical and Conceptual Studies

Study	Research context	Main contribution	Relevance to the proposed framework
Panos & Wilson [1]	FinTech and responsible finance	Highlights financial literacy and consumer risks	Establishes the financial capability problem
Lyons et al. [2]	Seven countries in South Asia and Sub-Saharan Africa	Connects financial and digital literacy with resilience-building behavior	Financial resilience and socioeconomic differences
Koskelainen et al. [3]	Digital financial literacy research agenda	Identifies FinTech, digital financial behavior, and behavioral interventions	Multidimensional digital financial literacy
Choung et al. [4]	Korean adults	Associates digital financial literacy with financial well-being and fraud protection	Literacy–well-being relationship
Abdurrahman & Nugroho [5]	Adult respondents	Examines financial confidence, behavior, technology, and well-being	Behavioral and psychological pathways
Chhillar et al. [13]	499 participants in India	Examines literacy, financial management behavior, stress, and well-being	Behavioral and psychological mechanisms

Table 4. Identified Research Gaps and Proposed Research Agenda

Research gap	Proposed direction	Potential contribution
Technology adoption and financial outcomes often analyzed separately	Integrate TAM and financial capability perspectives	Outcome-oriented explanation of FinTech adoption
Unclear direction between literacy and adoption	Longitudinal and cross-lagged research	Clarification of temporal relationships
Limited differentiation of financial outcomes	Distinguish inclusion, resilience, and well-being	Improved conceptual precision
Inconsistent digital literacy measures	Develop and validate multidimensional instruments	Greater measurement comparability
Contextual heterogeneity	Cross-country and multigroup analysis	Identification of boundary conditions
Emerging AI-based financial services	Examine algorithmic and AI-related financial literacy	Updated understanding of digital financial capability

CONCLUSION

This narrative literature review concludes that digital financial literacy represents a critical capability connecting financial technology (FinTech) adoption with financial well-being. Although FinTech innovations have expanded financial accessibility, transaction efficiency, and opportunities for financial inclusion, technological adoption alone does not necessarily translate into improved financial outcomes. The synthesis indicates that digital financial literacy contributes to informed financial decision-making, responsible financial behavior, financial risk management, and financial resilience, which collectively support sustainable financial well-being. By integrating the Technology Acceptance Model, financial capability perspectives, and the capability approach, this study proposes an integrative conceptual framework in which digital financial literacy functions as an enabling and potentially moderating factor in the relationship between FinTech adoption and financial well-being. The principal theoretical contribution lies in shifting the emphasis from technology adoption toward the effective conversion of digital financial opportunities into meaningful financial outcomes, while recognizing the influence of socioeconomic inequalities, institutional conditions, and consumer protection mechanisms.

Based on these conclusions, this study recommends that policymakers, financial institutions, and educational stakeholders prioritize comprehensive digital financial literacy initiatives alongside the expansion of FinTech services. Financial education programs should integrate conventional financial knowledge with digital competencies, responsible borrowing and investment practices, cybersecurity awareness, and consumer protection. FinTech providers, in particular, should adopt ethical choice architecture and responsible user experience (UX) design that actively protect consumers through "responsible nudging"—such as automated risk warnings before high-cost borrowing, real-time debt-to-income alerts, mandatory cooling-off periods for high-risk loans, and visual cues highlighting long-term cost implications. These features should counteract cognitive biases amplified by digital platforms rather than exploit them, while ensuring that algorithmic recommendations and credit scoring systems remain transparent, explainable, and subject to periodic fairness audits. Regulatory authorities should strengthen consumer safeguards and ensure equitable access to digital financial services. Future research is encouraged to employ longitudinal, experimental, and cross-country comparative approaches to examine the mediating and moderating roles of digital financial literacy, financial behavior, and financial resilience. Furthermore, subsequent studies should investigate emerging challenges associated with AI-driven financial services, algorithmic decision-making, and digital financial vulnerabilities to develop more inclusive and sustainable financial ecosystems.

REFERENCES

[1] G. A. Panos and J. O. S. Wilson, “Financial literacy and responsible finance in the FinTech era: capabilities and challenges,” The European Journal of Finance, vol. 26, no. 4–5, pp. 297–301, Mar. 2020, doi: 10.1080/1351847X.2020.1717569.

[2] A. Lyons, J. Kass-Hanna, and F. Liu, “Building Financial Resilience Through Financial and Digital Literacy in South Asia and Sub-Saharan Africa,” May 2021, doi: 10.2139/SSRN.3496562.

[3] T. Koskelainen, P. Kalmi, E. Scornavacca, and T. Vartiainen, “Financial literacy in the digital age—A research agenda,” Journal of Consumer Affairs, vol. 57, no. 1, pp. 507–528, Jan. 2023, doi: 10.1111/JOCA.12510;ISSUE:ISSUE:DOI.

[4] Y. Choung, S. Chatterjee, and T. Y. Pak, “Digital financial literacy and financial well-being,” Financ. Res. Lett., vol. 58, p. 104438, Dec. 2023, doi: 10.1016/J.FRL.2023.104438.

[5] A. Abdurrahman and D. A. Nugroho, “The role of digital financial literacy on financial well-being with financial technology, financial confidence, financial behavior as intervening and sociodemography as moderation,” Jurnal Ekonomi dan Bisnis, vol. 27, no. 2, pp. 191–220, Dec. 2024, doi: 10.24914/jeb.v27i2.11891.

[6] E. Aljarrah, H. Elrehail, and B. Aababneh, “E-voting in Jordan: Assessing readiness and developing a system,” Comput. Human Behav., vol. 63, pp. 860–867, Oct. 2016, doi: 10.1016/J.CHB.2016.05.076.

[7] J. Hurani, M. K. Abdel-Haq, and E. Camdzic, “FinTech Implementation Challenges in the Palestinian Banking Sector,” International Journal of Financial Studies, vol. 12, no. 4, p. 122, Dec. 2024, doi: 10.3390/ijfs12040122.

[8] R. C. Sari, Z. Zuhrohtun, A. Pranesti, R. Yudhiyati, U. S. Udhma, and N. Nurbaiti, "Enhancing Financial Resilience of Women Entrepreneurs through Strengthened Digital Financial Literacy," Jurnal Ilmiah Akuntansi dan Bisnis, vol. 19, no. 2, p. 218, Jul. 2024, doi: 10.24843/JIAB.2024.v19.i02.p02.
[9] R. Sarlawa, "Digital Financial Literacy and Financial Behavior: Pathways to Inclusion and Resilience," Jurnal Ilmiah Manajemen Kesatuan, vol. 13, no. 6, pp. 5709–5726, Nov. 2025, doi: 10.37641/jimkes.v13i6.4460.
[10] S. Pawenang, S. A. Al-shami, and A. Wijaya, "Empowering SMEs through Digital Financial Literacy: Enhancing Resilience, Innovation, and Inclusivity in Malaysia," International Journal of Academic Research in Accounting, Finance and Management Sciences, vol. 14, no. 4, pp. 813–819, Nov. 2024, doi: 10.6007/IJARAFMS/V14-I4/23884.
[11] W. Prihandini, "Digital Financial Literacy and Financial Inclusion in Indonesia's Digital Economy," International Journal of Economics, Business and Accounting Research (IJEBAR), vol. 9, no. 3, Sep. 2025, doi: 10.29040/IJEBAR.V9I3.18500.
[12] S. Muat, F. Fachrurrozi, and N. Sari, "How do digital financial literacy, financial behavior, and skills affect financial well-being? An Exploratory Study on Gen Z," IJBE (Integrated Journal of Business and Economics), vol. 8, no. 1, p. 728, Feb. 2024, doi: 10.33019/ijbe.v8i1.851.
[13] N. Chhillar, K. Sharma, and S. Arora, "Exploring the role of digital financial literacy and personal financial behavior in shaping financial stress and well-being in the digital age," Acta Psychol. (Amst)., vol. 259, p. 105308, Sep. 2025, doi: 10.1016/J.ACTPSY.2025.105308.
[14] D. Aristei and M. Gallo, "Financial Knowledge, Confidence, and Sustainable Financial Behavior," Sustainability, vol. 13, no. 19, p. 10926, Sep. 2021, doi: 10.3390/su131910926.
[15] P. P. Prawitasari, "Fraud In The Digital Age: Assessing Cybercrime Through The Lens of The Fraud Hexagon," JAF- Journal of Accounting and Finance, vol. 9, no. 2, Sep. 2025, doi: 10.25124/jaf.v9i2.9412.
[16] W. Prihandini, "Digital Financial Literacy and Financial Inclusion in Indonesia's Digital Economy," International Journal of Economics, Business and Accounting Research (IJEBAR), vol. 9, no. 3, Sep. 2025, doi: 10.29040/ijebar.v9i3.18500.
[17] M. F. Sabri et al., "Digital Capabilities, Behavioural Resilience, and Financial Inclusion in AI-Enabled Commerce: Evidence from Malaysia and Indonesia," 2025, doi: 10.2139/SSRN.5789190.
[18] C. M.-G. Umeaduma and C. M.-G. Umeaduma, "Financial inclusion strategies for poverty reduction and economic empowerment in underbanked rural populations globally," World Journal of Advanced Research and Reviews, vol. 18, no. 1, pp. 1263–1280, Apr. 2023, doi: 10.30574/WJARR.2023.18.1.0709.
[19] R. Kamis, "Digital Financial Inclusion and Payment Growth: A Comparative Assessment of Malaysia and Indonesia," IJRISS Vol 9 Issue 11, vol. 9, no. 11, pp. 4708–4719, Dec. 2025, doi: 10.47772/IJRISS.2025.91100369