International Journal of Finance and Commerce
www.commercejournals.com
Online ISSN: 2664-715X, Print ISSN: 2664-7141
Received: 31-10-2025, Accepted: 30-11-2025, Published: 15-12-2025
Volume 7, Issue 4, 2025, Page No. 45-47

Digital financial literacy among students: A literature review

Renu Bhatt[1], Dr. Sameer Kulkarni[2], Dr. Bhawana Sharma[3]
[1] Research Scholar, Amity Business School, Amity University Mumbai, Mahasashtra, India
[2] Amity Business School, Amity University Mumbaim Mahasashtra, India
[3] Professor, Amity Business School, Amity University Mumbai, Mahasashtra, India

Abstract
Digital financial literacy (DFL) has become increasingly essential as financial systems migrate toward digital platforms and as young people adopt mobile and online financial tools at unprecedented rates. Students—often early adopters of emerging technologies—frequently engage with online banking, mobile payments, algorithmic credit systems, cryptocurrency platforms, and social-media-mediated investment content. However, existing evidence indicates that many lacks the knowledge, digital safety skills, and behavioural competencies required to use these tools responsibly. Drawing on international frameworks and empirical studies, this review synthesizes research on the conceptualization, measurement, determinants, behavioural implications, and educational interventions related to DFL. The discussion also identifies methodological limitations, theoretical gaps, and practical considerations for future research and policy design. The review concludes that comprehensive, context-adaptive approaches are necessary to ensure that students develop the competencies needed to navigate an increasingly digital and high-risk financial environment.

Keywords: Digital financial literacy, students, financial technology (FinTech), digital financial behavior, financial education

Introduction

Over the last decade, digital technologies have reshaped the global financial landscape, prompting a major shift in how individuals carry out financial transactions, make financial plans, and engage with credit and investment markets. This shift has profoundly affected students, who are among the most active and enthusiastic users of digital financial tools. They routinely engage with mobile banking applications, online payment systems, digital wallets, peer-to-peer transfers, micro-investment platforms, Buy-Now-Pay-Later (BNPL) credit schemes, and increasingly, algorithm-driven budgeting tools and cryptocurrency exchanges (OECD, 2021). While these technologies provide new forms of financial access and convenience, they also introduce challenges that many young users are not well-prepared to navigate.

Digital financial environments are characterized by speed, automation, and complex design interfaces that can obscure risk or encourage impulsive behaviour. Algorithmic recommendations, persuasive design elements, and simplified disclosures may shape users' decisions in subtle ways. Students may believe their technological confidence equates to financial competence, but research increasingly shows that familiarity with digital devices does not necessarily translate into informed or responsible financial choices (Choung & Park, 2023) [2]. This gap between perceived and actual competence underscores the importance of digital financial literacy (DFL) as an emerging research and policy priority.

DFL represents a significant advancement beyond traditional financial literacy, requiring individuals to understand financial concepts within digital platforms while also possessing the digital and cybersecurity skills needed for safe engagement. The rise in digital scams, identity theft, phishing attacks, and fraud highlights the risks students face when they lack digital safety awareness (Ahmed & Patel, 2020) [1]. The ability to critically assess financial information—much of which is now disseminated through social media influencers, online communities, and targeted advertisements—has also become essential. Young users may be exposed to speculative investment trends or unverified financial advice that can lead to harmful financial decisions (Lopez & Chen, 2021) [4].

At the same time, digital financial inclusion has increased rapidly, especially in emerging economies where mobile money systems provide convenient alternatives to traditional banking. This has widened students' access to financial services but has also intensified the need for appropriate financial literacy and cybersecurity education (Ravikumar & Singh, 2022) [8]. However, DFL levels vary dramatically based on socioeconomic status, regional infrastructure, cultural norms, educational background, and digital access—indicating that digitalization may amplify existing inequalities rather than reduce them (Zaimovic, 2024) [11].

Conceptual Foundations of Digital Financial Literacy

1. Defining DFL in Modern Contexts

Digital financial literacy is generally conceptualized as a multidimensional construct that includes:

1. Financial knowledge applicable to digital contexts
2. Digital navigation skills, including the ability to use financial applications and evaluate online information
3. Cybersecurity awareness, including risk recognition and protective behaviours

The OECD (2021) defines DFL as the knowledge and skills required to make informed financial decisions in digital environments, emphasizing safe and responsible use of online tools. This definition recognizes the increasing integration of financial decision-making into digital platforms that often prioritize user engagement and convenience over transparency.

2. Financial Knowledge in Digital Spaces

Traditional financial knowledge remains relevant in digital settings—students still need to understand budgeting,

interest rates, debt, and investment risk. However, digital platforms often present financial information in simplified or gamified formats, which can distort users' perceptions. For example, BNPL platforms may emphasize fee-free introductory periods while downplaying hidden penalties (Morris & Wang, 2022) [5]. As such, DFL must include the ability to interpret these simplified presentations critically and identify long-term consequences.

3. Digital Navigation and Information Evaluation

Students frequently encounter financial content on social media, where influencers present investment recommendations, credit strategies, or budgeting advice. Lopez and Chen (2021) [4] found that students exposed to influencer-driven content often adopt riskier behaviours, especially when lacking the digital literacy required to evaluate credibility. Effective DFL therefore must include skills in identifying reliable sources, distinguishing sponsored content from objective advice, and understanding how algorithms shape online exposure.

4. Cybersecurity as a Core Component

Cybersecurity awareness has become a defining element of DFL. Students face threats such as phishing emails, fraudulent payment links, fake banking websites, and malicious applications. Research demonstrates that students with limited cybersecurity skills are significantly more likely to experience financial loss or identity theft (Ahmed & Patel, 2020) [1]. Therefore, a modern definition of DFL must incorporate digital safety practices, including password management, multi-factor authentication, and risk recognition.

Measurement Approaches and Methodological Issues

1. Self-Assessment Instruments

Self-report measures are common in DFL research because they are easy to administer and can capture perceived confidence. However, students often overestimate their competence due to familiarity with digital interfaces (Rodríguez-Correa & Gomez, 2025) [9]. These instruments therefore provide insight into perceptions, not actual ability.

2. Objective Tests and Knowledge Assessments

Objective knowledge assessments typically evaluate understanding of digital transactions, fees, cybersecurity principles, and financial decision-making. One of the most widely referenced tools is the Digital Financial Knowledge Scale (DFKS), which Vieira and Smith (2024) [10] validated across student populations in Brazil and the United States. Such tools help standardize comparison but remain limited because they measure knowledge rather than applied behaviour.

3. Scenario-Based and Behavioural Measures

Scenario-based assessments simulate real-life decisions, such as interpreting online credit terms or identifying phishing attempts. These assessments provide a more accurate picture of practical competence and problem-solving behaviours (Ahmed & Patel, 2020) [1]. However, they are resource-intensive and less commonly used in large-scale studies.

4. Need for Standardization and Cross-Cultural Adaptation

A persistent challenge in the field is the lack of standardized, cross-culturally validated measurement tools. While the OECD (2021) offers a broad framework, researchers often modify or supplement it according to regional needs. This fragmentation complicates comparisons across studies and limits the generalizability of findings.

Determinants of Digital Financial Literacy among Students

1. Socioeconomic and Demographic Factors

DFL levels vary significantly across socioeconomic backgrounds. Students from economically advantaged households tend to have greater access to digital devices, financial guidance, and reliable internet connections, leading to stronger DFL (Zaimovic, 2024) [11]. In contrast, students from low-income or rural backgrounds may rely on digital tools frequently but lack formal financial education.

Gender patterns also emerge in some studies. For example, males sometimes display higher confidence in digital investing, while females exhibit stronger budgeting and risk-avoidance skills (Rodríguez-Correa & Gomez, 2025) [9]. These trends reflect socialization patterns rather than inherent differences and suggest that targeted education may help reduce disparities.

2. Social and Peer Influences

Peers play an important role in shaping DFL. In India, Ravikumar and Singh (2022) [8] found that students often learn to use digital payment systems through informal peer instruction rather than formal training. While peer learning can increase adoption, it may also spread risky habits, such as ignoring transaction alerts or using insecure payment links.

3. Cultural and Contextual Differences

DFL also varies across countries based on regulatory frameworks, technological infrastructure, and cultural attitudes toward digital finance. In highly digitalized regions, students may show strong navigation skills but weaker awareness of cybersecurity or data protection. Conversely, in emerging economies, rapid adoption can outpace financial education efforts (Zaimovic, 2024) [11].

4. Psychological Factors and Self-Efficacy

Self-efficacy—the belief in one's ability to manage financial tasks—plays a crucial mediating role in digital financial behaviour. Nguyen and Russell (2024) [6] found that students with high self-efficacy apply digital knowledge more effectively, while those with low confidence struggle even when they possess adequate knowledge.

Behavioural Outcomes of Digital Financial Literacy

1. Budgeting and Saving

Students with stronger DFL demonstrate better budgeting skills and greater capacity to manage cash flows in digital environments. They are more likely to use budgeting apps effectively and to interpret spending data provided by financial platforms (Choung & Park, 2023) [2].

2. Credit and Debt Management

DFL strongly influences how students use credit. Digital credit products, such as BNPL, present risks due to simplified interfaces and delayed penalty structures. Students with weak DFL often misunderstand repayment patterns, interest rates, and late fees (Morris & Wang, 2022) [5]. High DFL helps students recognize hidden costs and avoid debt traps.

3. Fraud Awareness and Cybersecurity Behaviour
Students with higher DFL are more adept at identifying fraudulent messages, insecure websites, and unusual account activity. Cybersecurity training significantly reduces susceptibility to scams (Ahmed & Patel, 2020) [1], demonstrating that DFL is directly linked to financial safety.

4. Investment Behaviour
Digital investment platforms have made investing more accessible but also riskier. Influencer culture and algorithmic suggestions can shape investment decisions. Lopez and Chen (2021) [4] showed that students heavily influenced by social media often adopt speculative strategies with limited understanding of risk.

Interventions to Improve DFL
1. Curriculum-Integrated Education
Embedding DFL modules into university courses has shown significant benefits. Programs combining theoretical knowledge with applied digital tasks—such as online simulations—are particularly effective (Kline & Torres, 2023) [3].

2. Gamified Learning Environments
Gamification increases student engagement, especially when financial concepts are delivered through interactive challenges and scenario-based activities. While useful for initial learning, gamified tools must be sustained or integrated into broader instruction to support long-term impact.

3. Cybersecurity Training
Short, targeted cybersecurity programs improve students' ability to recognize phishing and strengthen secure online practices (Ahmed & Patel, 2020) [1]. Because cybersecurity is essential to DFL, such programs should be viewed as foundational rather than optional.

4. Peer and Hybrid Learning Models
Peer-based instruction can increase accessibility, especially for students hesitant to participate in formal financial education. Hybrid models combining digital and face-to-face components may provide the most versatile learning environment (Rodríguez-Correa & Gomez, 2025) [9].

Research Gaps and Future Directions
1. Lack of Standardized Measurement Tools
The absence of consistent, validated DFL measurement instruments limits the comparability of findings across countries. Researchers call for collaborative efforts to create robust, adaptable tools (OECD, 2021).

2. Limited Causal Evidence
Most intervention studies rely on cross-sectional designs, preventing strong causal conclusions. More randomized controlled trials and longitudinal studies are required (Kline & Torres, 2023) [3].

3. Underrepresentation of Diverse Student Populations
Students from rural, low-income, or minority backgrounds remain understudied. These groups may experience unique risks and deserve targeted support.

4. Emerging Digital Technologies
Little research explores student literacy regarding cryptocurrency, decentralized finance (DeFi), or AI-based financial tools, despite their rapid growth.

5. Behavioural Data Gaps
Most studies rely on self-reported behaviour rather than observed behaviour. Future research should integrate behavioural experiments and real-world digital environments.

Conclusion
Digital financial literacy has become essential for students managing their financial lives in digital environments defined by convenience, speed, and complexity. Although students display familiarity with digital tools, they often lack deeper financial and cybersecurity knowledge required for safe and effective decision-making. Research demonstrates clear links between DFL and positive financial outcomes, including improved budgeting, reduced fraud vulnerability, and more responsible credit behaviour.

Educational interventions—particularly those combining conceptual insight with practical digital engagement—show strong promise but require further validation. Policymakers, educators, and financial institutions must collaborate to develop inclusive, adaptable, and evidence-based DFL programs. As digital technologies continue to evolve rapidly, strengthening DFL will remain central to promoting long-term financial well-being among students.

References

1. Ahmed S, Patel R. Digital security training and protective behaviors among students. Cybersecurity & Society,2020:5(1):45–69.
2. Choung Y, Park H. Digital financial literacy and financial well-being among young adults. Journal of Consumer Affairs,2023:57(4):1234–1260.
3. Kline J, Torres M. Gamified interventions for student financial education: A randomized trial. Computers & Education,2023:183:104512.
4. Lopez A, Chen Y. Social media, influencers and student investment choices. Journal of Behavioral Finance,2021:12(2):98–118.
5. Morris E, Wang L. Buy-now-pay-later platforms and youth consumers: Risks and literacy needs. Youth Finance Journal,2022:3(4):211–236.
6. Nguyen H, Russell P. Financial self-efficacy as a mediator between digital literacy and outcomes in university students. Journal of Applied Economics Education,2024:11(2):77–101.
7. Organisation for Economic Co-operation and Development. OECD/INFE Toolkit for Measuring Digital Financial Literacy. OECD Publishing, 2021.
8. Ravikumar T, Singh P. Mobile money, students, and the knowledge gap. International Journal of Digital Finance,2022:8(2):89–110.
9. Rodríguez-Correa PA, Gomez L. Financial literacy among college students: A systematic review. Journal of Higher Education Policy,2025:7(1):1–36.
10. Vieira KM, Smith L. Development and validation of the Digital Financial Knowledge Scale (DFKS). Journal of Financial Education and Practice,2024:32(1):45–72.
11. Zaimovic A. Measuring digital financial literacy: Socio-demographic disparities in Europe. Financial Literacy Review,2024:19(3):201–229.