



Digital Financial Services Literacy and Cryptocurrency Investment Intention: A Conceptual Framework for Emerging Economies

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Abstract - This paper aims to develop a conceptual framework explaining how digital financial services literacy influences cryptocurrency investment intention in emerging economies. The study adopts a theory-based and integrative approach by synthesizing literature from digital finance, financial literacy, behavioural finance, and technology adoption research. Drawing on established theoretical perspectives, including financial literacy theory, technology acceptance models, self-efficacy theory, and Behavioral finance, the paper proposes a framework that links digital financial services literacy with cryptocurrency investment intention through key mediating and moderating mechanisms. The framework suggests that digital financial services literacy enhances crypto literacy and financial self-efficacy, which in turn strengthen individuals' intention to invest in cryptocurrencies, while risk tolerance and trust in digital platforms influence the strength of these relationships. The study highlights that cryptocurrency investment decisions are shaped by both cognitive and psychological factors operating within digital financial environments. The proposed framework contributes to existing literature by integrating fragmented research on digital financial services and cryptocurrency investment into a unified theoretical model. From a practical perspective, the study provides useful insights for policymakers, educators, and financial institutions in designing targeted financial education and consumer protection programs that promote informed and responsible participation in digital asset markets. By offering a structured foundation for future empirical research, this paper supports the development of effective regulatory and educational strategies in the rapidly evolving digital finance landscape.

Keywords - Digital financial services, Digital financial literacy, Cryptocurrency investment intention, Crypto literacy, Self-efficacy, Risk tolerance, Trust, Emerging economies.

I. Introduction

Digital financial services (DFS), such as mobile banking, digital wallets, online payments, and app-based financial platforms, are now widely used in many countries, including India (Loke et al., 2025). These services have improved access to financial systems and made transactions faster and more convenient (Choung et al., 2023). The growth of smartphones and internet access has further supported the expansion of digital finance (Hunter et al., 2025). At the same time, cryptocurrencies such as Bitcoin and Ethereum have gained increasing attention among individual investors (Jones et



al., 2024). Many people view cryptocurrencies as alternative investment options with high return potential (Bai et al., 2025). However, crypto markets are highly unstable and are influenced by technological risks and changing regulations (Bawa, 2026). As a result, cryptocurrency investment involves higher risk than most traditional financial products (Jones et al., 2024). To use digital finance safely and effectively, individuals need digital financial services literacy, which includes financial knowledge, digital skills, and awareness of online security risks (Choung et al., 2023; Chhillar et al., 2025; Mazzoli & Baiocco, 2025). People with higher levels of digital financial literacy are better able to understand digital financial products, avoid online fraud, and manage transactions responsibly (Choung et al., 2023; Chhillar et al., 2025).

They also show greater confidence when using digital platforms for financial activities (Mazzoli & Baiocco, 2025). Previous research has mainly examined digital financial services and cryptocurrency investment separately. Studies on DFS focus on technology adoption, trust, and financial inclusion (Loke et al., 2025; Hunter et al., 2025), while cryptocurrency research focuses on market risk and investor behavior (Jones et al., 2024; Bawa, 2026). As a result, limited attention has been given to how digital financial literacy connects DFS usage with cryptocurrency investment. Research findings on financial literacy and cryptocurrency participation are mixed. Some studies suggest that higher financial and digital knowledge leads to better investment decisions (Mazzoli & Baiocco, 2025). Other studies show that even knowledgeable investors may engage in risky crypto trading due to overconfidence or social influence (Jones et al., 2024). In addition, people facing financial stress are more likely to invest in cryptocurrencies, while financial education can reduce such behavior (Bai et al., 2025).

These results indicate that the relationship between literacy and crypto investment is complex. Trust in digital platforms and confidence in government regulation also influence digital finance use (Loke et al., 2025). When users trust financial systems, they are more willing to adopt new technologies (Hunter et al., 2025). This trust may also affect cryptocurrency investment, which often operates under uncertain regulation (Bawa, 2026). Therefore, digital skills, financial knowledge, risk attitudes, and trust should be examined together. From a policy perspective, the lack of an integrated framework linking DFS literacy and cryptocurrency investment makes it difficult to design effective financial education and consumer protection programs (Chhillar et al., 2025; Loke et al., 2025). Without clear guidance, such programs may not fully address the risks of digital assets (Bai et al., 2025). In response to these gaps, this paper develops a conceptual framework explaining how digital financial services literacy influences cryptocurrency investment intention. Drawing on financial literacy theory, technology adoption models, behavioural finance, and self-efficacy theory, the study explains how digital skills and financial knowledge shape confidence, risk perception, and trust, which in turn affect crypto investment decisions (Chhillar et al., 2025; Jones et al., 2024; Mazzoli & Baiocco, 2025). The proposed framework provides a foundation for future empirical research and policy initiatives aimed at promoting informed and responsible participation in digital asset markets.

II. Literature Review



Digital Financial Services and Adoption

Digital financial services refer to financial activities conducted through digital platforms, including mobile banking, digital wallets, online transfers, and app-based financial products (Loke et al., 2025). These services have expanded rapidly in developing countries due to improved internet access and smartphone use (Hunter et al., 2025). Research shows that DFS adoption is influenced by perceived usefulness, ease of use, social influence, and trust in digital systems (Loke et al., 2025). Trust plays an important role in encouraging individuals to use digital finance platforms. Users are more likely to adopt DFS when they believe that systems are secure and supported by government regulation (Loke et al., 2025). In low- and middle-income countries, lack of digital skills and limited awareness remain major barriers to DFS adoption (Hunter et al., 2025). These findings suggest that access alone is not sufficient; users must also possess adequate knowledge and confidence to use digital financial tools.

Digital Financial Services Literacy

Digital financial services literacy combines traditional financial literacy with digital skills and online security awareness (Choung et al., 2023). It includes the ability to understand digital financial products, manage online transactions, and protect personal information (Chhillar et al., 2025). Studies show that individuals with higher digital financial literacy are better able to manage their finances and avoid fraud (Choung et al., 2023). Mazzoli and Baiocco (2025) found that digital financial literacy supports participation in advanced financial activities, such as online investments, especially among users with strong digital skills. Similarly, Chhillar et al. (2025) reported that higher literacy improves financial confidence and reduces stress related to digital financial use. These studies indicate that digital financial literacy plays a key role in shaping financial behavior in digital environments.

Cryptocurrency Investment Behaviour

Cryptocurrencies are digital assets based on blockchain technology and are widely traded through online platforms (Jones et al., 2024). Research shows that retail investors are attracted to cryptocurrencies because of their high return potential and easy access through mobile applications (Bai et al., 2025). However, crypto markets are highly volatile and subject to sudden price changes (Bawa, 2026). Studies indicate that cryptocurrency investment is influenced by risk tolerance, market awareness, and social influence (Jones et al., 2024). Many investors rely on online information, social media, and peer opinions when making crypto-related decisions. Due to limited regulation and complex technology, investors with low financial and digital knowledge are more vulnerable to losses (Bawa, 2026).

Financial Literacy and Cryptocurrency Participation

The relationship between financial literacy and cryptocurrency investment is not consistent across studies. Some research suggests that higher financial knowledge supports informed investment and risk management (Mazzoli & Baiocco, 2025). However, Jones et al. (2024) found that general financial literacy alone does not always predict crypto participation and that specific crypto knowledge is also important. Bai et al. (2025) reported that individuals facing financial stress are more likely to invest in cryptocurrencies as a risky strategy, while financial education reduces this tendency. This suggests that literacy can both enable and limit crypto participation depending on



individual circumstances. Therefore, digital financial literacy should be viewed as a multidimensional factor that interacts with personal and situational conditions.

Role of Risk, Trust, and Self-Efficacy

Risk perception strongly influences cryptocurrency investment decisions. Investors who are more tolerant of risk are more willing to invest in volatile digital assets (Bawa, 2026). At the same time, overconfidence may lead some individuals to underestimate potential losses (Jones et al., 2024). Trust in digital platforms and regulatory institutions also affects financial behavior. Users who trust financial systems are more likely to adopt and continue using digital services (Loke et al., 2025). In uncertain regulatory environments, low trust may discourage participation or encourage speculative behavior (Bawa, 2026). Self-efficacy, defined as an individual's belief in their ability to perform financial tasks, is another important factor. Chhillar et al. (2025) showed that higher digital financial self-efficacy improves financial management and decision-making. Individuals who feel confident in using digital tools are more likely to explore complex financial products, including cryptocurrencies.

Summary and Research Gap

The reviewed literature shows that DFS adoption, digital financial literacy, and cryptocurrency investment have been widely studied. However, these areas are mostly examined separately. Limited research has integrated digital financial literacy, psychological factors, and cryptocurrency investment intention within a unified framework. In particular, few studies explain how DFS literacy influences crypto investment through mediating factors such as crypto knowledge and self-efficacy, and moderating factors such as risk tolerance and trust. This gap highlights the need for a comprehensive conceptual model that links digital financial competencies with cryptocurrency investment behavior in emerging economies.

Theoretical Foundations

This study is grounded in established theories that explain how individuals adopt digital technologies, make financial decisions, and evaluate investment risks. To develop a comprehensive framework linking digital financial services literacy and cryptocurrency investment intention, the study draws on financial literacy theory, technology acceptance models, behavioural finance theory, and self-efficacy theory. Financial literacy theory explains how individuals' knowledge and understanding of financial concepts influence saving, investment, and risk management behavior (Lusardi & Mitchell, 2014). In digital environments, this knowledge must be combined with digital skills and security awareness, as digital financial literacy is essential for responsible use of online financial services (Choung et al., 2023; Chhillar et al., 2025). The Technology Acceptance Model and UTAUT further explain that perceived usefulness, ease of use, social influence, and facilitating conditions determine the adoption of digital platforms (Davis, 1989; Venkatesh et al., 2003). These factors have been shown to influence the use of digital banking and fintech services (Loke et al., 2025; Hunter et al., 2025) and are also relevant for cryptocurrency platforms. Behavioral finance theory highlights that investors are often influenced by emotions, biases, and social pressure rather than purely rational judgment (Thaler, 2016). Studies indicate that cryptocurrency investors frequently display overconfidence, herd behavior, and excessive risk-taking, especially under conditions of uncertainty and weak regulation (Jones et al., 2024; Bawa, 2026;



Bai et al., 2025). Self-efficacy theory further explains how individuals' confidence in their ability to use digital tools affects their willingness to engage in complex financial activities (Bandura, 1986). Higher digital financial self-efficacy improves financial management and reduces anxiety (Chhillar et al., 2025), encouraging participation in digital investments. By integrating these perspectives, this study proposes that digital financial services literacy strengthens financial knowledge and digital competence, enhances self-efficacy, reduces perceived risk, and interacts with technology acceptance and behavioural factors to shape cryptocurrency investment intention.

Development of the Conceptual Framework and Propositions

Based on the reviewed literature and theoretical foundations, this section presents the proposed conceptual framework explaining the relationship between digital financial services literacy and cryptocurrency investment intention. The framework integrates financial, technological, and behavioural factors to explain how individuals form intentions to participate in cryptocurrency markets.

Key Constructs of the Framework

This study focuses on six main constructs: digital financial services literacy, crypto literacy, self-efficacy, risk tolerance, trust in digital platforms, and cryptocurrency investment intention. Digital Financial Services Literacy (DFSL) refers to individuals' ability to understand and use digital financial tools safely and effectively. It includes financial knowledge, digital skills, awareness of online security, and the ability to evaluate digital financial information (Choung et al., 2023; Chhillar et al., 2025). Crypto Literacy refers to knowledge about cryptocurrency systems, blockchain technology, market risks, and regulatory conditions (Jones et al., 2024). It reflects an individual's capacity to understand how crypto assets operate. Self-Efficacy represents individuals' confidence in their ability to manage digital financial activities and make investment decisions using online platforms (Bandura, 1986; Chhillar et al., 2025). Risk Tolerance refers to the level of uncertainty and potential loss that individuals are willing to accept when making financial investments (Bawa, 2026). Trust in Digital Platforms reflects users' belief that digital financial systems are secure, reliable, and supported by appropriate regulations (Loke et al., 2025). Cryptocurrency Investment Intention refers to an individual's willingness and planned behavior to invest in cryptocurrency assets in the future (Jones et al., 2024).

Proposed Conceptual Framework

The proposed framework suggests that digital financial services literacy is the main driving factor influencing cryptocurrency investment intention. Digital financial services literacy directly improves individuals' understanding of digital finance and indirectly influences investment intention through crypto literacy and self-efficacy. Risk tolerance and trust in digital platforms are expected to moderate these relationships. As illustrated in Figure 1, digital financial services literacy influences both crypto literacy and self-efficacy, which in turn affect cryptocurrency investment intention. Risk tolerance and trust in digital platforms are positioned as moderating variables that strengthen or weaken these relationships.

In the framework:

- Digital financial services literacy influences crypto literacy and self-efficacy.

- Crypto literacy and self-efficacy influence cryptocurrency investment intention.
- Risk tolerance and trust in digital platforms strengthen or weaken these relationships.
- This structure reflects the combined influence of knowledge, confidence, and psychological factors on digital investment behavior. The framework presented in Figure 1 provides a clear theoretical basis for developing the propositions discussed in the following section.

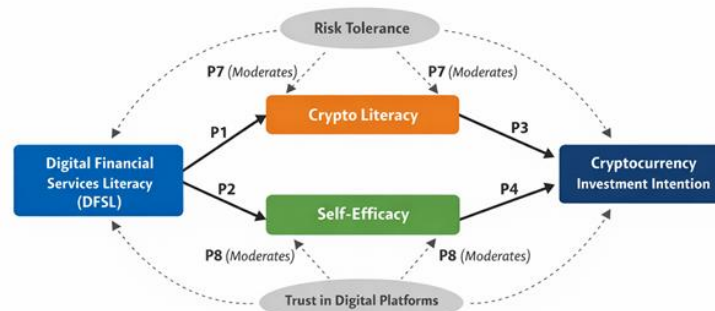


Figure 1. Proposed Conceptual Framework Linking Digital Financial Services Literacy and Cryptocurrency Investment Intention

Note: DFSL = Digital Financial Services Literacy. Crypto literacy and self-efficacy act as mediating variables, while risk tolerance and trust in digital platforms function as moderating variables.

Development of Propositions

Based on the conceptual framework, the following propositions are proposed.

Proposition 1 (P1): Digital financial services literacy positively influences crypto literacy.

Individuals with strong digital financial skills are more likely to understand complex financial products, including cryptocurrencies. Prior studies show that digital and financial knowledge improves individuals' ability to evaluate advanced financial tools (Choung et al., 2023; Jones et al., 2024). Therefore, higher DFSL is expected to increase crypto literacy.

Proposition 2 (P2): Digital financial services literacy positively influences self-efficacy in digital financial activities. People who possess strong digital and financial skills tend to feel more confident when using online platforms. Chhillar et al. (2025) found that digital financial literacy improves financial confidence and control. Hence, DFSL is expected to enhance self-efficacy in managing digital investments.

Proposition 3 (P3): Crypto literacy positively influences cryptocurrency investment intention.



Individuals who understand cryptocurrency technology, risks, and regulations are better able to evaluate investment opportunities. Jones et al. (2024) showed that crypto-specific knowledge is important for crypto-related decision-making. Therefore, higher crypto literacy is expected to increase investment intention.

Proposition 4 (P4): Self-efficacy positively influences cryptocurrency investment intention.

Individuals who believe in their ability to manage digital financial tools are more willing to engage in complex financial activities. According to Bandura (1986) and Chhillar et al. (2025), higher self-efficacy encourages active financial participation. Thus, self-efficacy is expected to increase crypto investment intention.

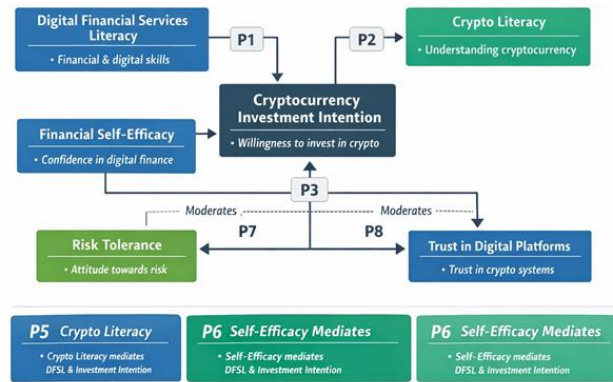
Proposition 5 (P5): Crypto literacy mediates the relationship between digital financial services literacy and cryptocurrency investment intention. DFSL improves individuals' basic digital and financial skills, which enhance their crypto-specific knowledge. This knowledge then influences their intention to invest. Jones et al. (2024) emphasized the role of crypto literacy in explaining crypto participation. Therefore, crypto literacy is expected to mediate this relationship.

Proposition 6 (P6): Self-efficacy mediates the relationship between digital financial services literacy and cryptocurrency investment intention. DFSL increases individuals' confidence in using digital financial platforms, which strengthens their intention to invest in cryptocurrencies. Chhillar et al. (2025) supported the mediating role of confidence in digital financial behavior. Thus, self-efficacy is expected to mediate this relationship.

Proposition 7 (P7): Risk tolerance moderates the relationship between crypto literacy and cryptocurrency investment intention. Even knowledgeable individuals may avoid crypto investments if they are highly risk-averse. Bawa (2026) highlighted the importance of risk attitudes in crypto markets. Therefore, the effect of crypto literacy on intention is expected to be stronger for individuals with higher risk tolerance.

Proposition 8 (P8): Trust in digital platforms moderates the relationship between digital financial services literacy and cryptocurrency investment intention. Users who trust digital systems and regulatory frameworks are more likely to act on their knowledge and skills. Loke et al. (2025) found that trust encourages digital finance adoption. Thus, trust is expected to strengthen the relationship between DFSL and crypto investment intention.

The relationships among digital financial services literacy, crypto literacy, self-efficacy, risk tolerance, trust, and cryptocurrency investment intention, as proposed in Propositions P1 to P8, are illustrated in Figure 2.



Choung et al., 2023; Jones et al., 2024 | Bandura, 1986; Chhillar et al., 2025 | Bawa, 2026; Loke et al., 2025

Note. The figure presents the proposed relationships (P1–P8) among digital financial services literacy, crypto literacy, self-efficacy, risk tolerance, trust in digital platforms, and cryptocurrency investment intention. Mediating and moderating effects are also illustrated.

Implications of the Conceptual Framework

The proposed conceptual framework offers important theoretical, policy, and practical implications for understanding cryptocurrency investment behavior in digital financial environments. By integrating digital financial services literacy, psychological factors, and technology-related variables, the framework provides a comprehensive view of how individuals form intentions to invest in cryptocurrencies.

Theoretical Implications

From a theoretical perspective, this study extends existing research on financial literacy and digital finance by linking it with cryptocurrency investment intention. Previous studies have largely examined digital financial services adoption and crypto investment separately. The present framework integrates these areas by showing how digital financial services literacy serves as a foundational factor that influences both knowledge and confidence in digital investments. The framework also contributes to behavioural finance literature by incorporating self-efficacy, risk tolerance, and trust as key explanatory factors. It highlights that crypto investment decisions are not based only on rational evaluation but are also shaped by psychological and emotional factors. Furthermore, by combining financial literacy theory with technology acceptance and self-efficacy perspectives, this study offers a more comprehensive explanation of digital investment behavior.

Policy Implications

The proposed framework provides useful guidance for policymakers and regulatory authorities. It suggests that improving digital financial services literacy can help individuals make more informed and responsible investment decisions in cryptocurrency markets. Therefore, government agencies and financial regulators



should design education programs that focus not only on basic financial knowledge but also on digital skills, cybersecurity awareness, and crypto-related risks. In addition, the role of trust in digital platforms highlights the importance of transparent regulations and effective consumer protection mechanisms. Clear guidelines on cryptocurrency trading, platform security standards, and fraud prevention can strengthen public confidence and reduce speculative and harmful investment practices.

Practical and Managerial Implications

For financial institutions, fintech companies, and digital platform providers, the framework emphasizes the need to support users through education and guidance. Platforms can improve user decision-making by providing simple learning materials, risk warnings, and tools that explain cryptocurrency functions and market risks. Training programs and online tutorials can be developed to enhance users' digital financial literacy and self-efficacy. By helping users understand both opportunities and risks, service providers can promote responsible participation in digital asset markets. For educators and financial counselors, the framework highlights the importance of integrating digital finance and crypto education into financial literacy programs. Such programs should focus on building confidence, encouraging critical thinking, and reducing impulsive investment behavior.

Social Implications

At a broader level, the framework supports efforts to promote financial stability and consumer protection in digital economies. By improving digital financial services literacy, individuals can better manage financial risks and avoid excessive losses in volatile crypto markets. This can contribute to greater financial inclusion, reduced inequality, and improved long-term financial well-being.

Limitations and Directions for Future Research

This study proposes a conceptual framework linking digital financial services literacy and cryptocurrency investment intention, but several limitations should be noted. First, the study is purely conceptual and lacks empirical evidence. Future research should test the proposed relationships using surveys, experiments, or interviews. Second, the framework focuses mainly on individual-level factors and does not include social and contextual influences such as media exposure, culture, and peer pressure. Future studies may extend the model by incorporating these factors. Third, the study adopts a general perspective for emerging economies and does not examine demographic or regional differences. Future research should analyze variations across age, income, education, and geographic groups. Fourth, the framework does not consider changes in market and regulatory conditions over time. Longitudinal studies are needed to examine how investment behavior evolves. Fifth, this study focuses on investment intention rather than actual behavior. Future research should examine how literacy influences real investment decisions and long-term outcomes. Future studies are encouraged to use advanced analytical methods, mixed approaches, and cross-country comparisons. Researchers should also explore the role of emerging technologies, such as artificial intelligence and decentralized finance, in shaping digital financial behavior.



III. Conclusion

This paper developed a conceptual framework to explain how digital financial services literacy influences cryptocurrency investment intention. By integrating financial literacy theory, technology acceptance models, behavioural finance, and self-efficacy theory, the study shows how digital skills, financial knowledge, confidence, risk attitudes, and trust shape individuals' decisions in cryptocurrency markets. The framework highlights digital financial services literacy as a foundational factor that strengthens crypto-related knowledge and self-efficacy, which in turn influence investment intention. It also emphasizes the moderating roles of risk tolerance and trust in digital platforms, indicating that both personal and institutional factors affect crypto-related decisions. By linking digital financial services usage with cryptocurrency investment behavior, this study addresses an important gap in existing literature and extends financial literacy research to modern digital contexts. From a practical perspective, the findings underline the importance of improving digital financial literacy to promote informed and responsible participation in digital asset markets. Policymakers, educators, and financial institutions should focus on enhancing digital skills, cybersecurity awareness, and risk management knowledge. Although the study is conceptual, it provides a strong foundation for future empirical research and policy development. Overall, this paper contributes to a better understanding of cryptocurrency investment intention and supports the development of effective education and regulatory strategies in evolving digital finance environments.

Conflicts of Interest

The authors declare that there are no conflicts of interest regarding the publication of this paper.

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References

1. Bai, Z., Zheng, S., & Jia, M. (2025). Financial constraints and cryptocurrency investment: The moderating role of financial education. *International Journal of Bank Marketing*, 43(10), 2256–2279. <https://doi.org/10.1108/IJBM-12-2024-0759>
2. Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Prentice Hall.
3. Bawa, S. (2026). Cryptocurrency volatility spillovers in emerging markets: A dynamic connectedness analysis. *Review of Behavioral Finance*, 18(1), 33–54. <https://doi.org/10.1108/RBF-09-2025-0389>
4. Chhillar, N., Sharma, K., & Arora, S. (2025). Exploring the role of digital financial literacy and personal financial behavior in shaping financial stress and well-being in the digital age. *Acta Psychologica*, 259, 105308. <https://doi.org/10.1016/j.actpsy.2025.105308>



5. Choung, Y., Chatterjee, S., & Pak, T.-Y. (2023). Digital financial literacy and financial well-being. *Finance Research Letters*, 58, 104438. <https://doi.org/10.1016/j.frl.2023.104438>
6. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319–340. <https://doi.org/10.2307/249008>
7. Hunter, S., Pham, C., Kim, K., Trinh, L. Q., Chai, A., Deshpande, S., Johl, S., Morgan, P. J., & Obucina, M. (2025). Factors influencing digital financial services adoption in low- and medium-income countries: A systematic literature review. *International Journal of Bank Marketing*, 43(9), 1884–1909. <https://doi.org/10.1108/IJBM-09-2024-0580>
8. Jones, M., Luu, T. J., & Samuel, B. (2024). The interdependence of financial literacy and crypto literacy. *Economics Letters*, 239, 111737. <https://doi.org/10.1016/j.econlet.2024.111737>
9. Loke, Y. J., Chin, P. N., & Lee, H. S. H. (2025). Digital financial services adoption: The role of trust and government intervention as mediators. *Digital Policy, Regulation and Governance*. <https://doi.org/10.1108/DPRG-02-2024-0028>
10. Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, 52(1), 5–44. <https://doi.org/10.1257/jel.52.1.5>
11. Mazzoli, C., & Baiocco, S. (2025). Unlocking sustainable investing through digital financial literacy: The impact of advanced digital skills. *International Journal of Bank Marketing*, 43(9), 1863–1883. <https://doi.org/10.1108/IJBM-10-2024-0622>
12. Thaler, R. H. (2016). Behavioral economics: Past, present, and future. *American Economic Review*, 106(7), 1577–1600. <https://doi.org/10.1257/aer.106.7.1577>
13. Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, 27(3), 425–478. <https://doi.org/10.2307/30036540>