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PROMOTING RESPONSIBLE FINTECH USAGE THROUGH DIGITAL FINANCIAL LITERACY: A CONCEPTUAL PERSPECTIVE FOR MALAYSIAN YOUNG ADULTS

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Abstract:

The rapid growth of financial technology (FinTech) has transformed financial service delivery by providing greater convenience and accessibility while exposing consumers to increasing financial and cybersecurity risks. Although digital financial literacy has been widely recognized as an important determinant of financial behavior, limited attention has been given to its role in promoting responsible FinTech usage, particularly among Malaysian young adults. This conceptual paper aims to propose a conceptual framework explaining the relationship between digital financial literacy and responsible FinTech usage based on Protection Motivation Theory (PMT). Using a conceptual approach, this paper synthesizes existing literature on digital financial literacy, responsible financial behavior, consumer protection, and FinTech. The proposed framework conceptualises digital financial literacy as comprising knowledge of digital financial products and services, awareness of digital financial risks, knowledge of digital financial risk control, and knowledge of consumer rights and redress procedures. These competencies are expected to encourage responsible FinTech usage by enabling young adults to make informed financial decisions, adopt safe digital financial practices, and protect their personal and financial information. This paper contributes to the literature by positioning responsible FinTech usage as a behavioral outcome of digital financial literacy and extending the application of PMT to the digital financial context. The proposed framework provides

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a foundation for future empirical research and offers practical insights for policymakers, financial institutions and educators in promoting responsible FinTech usage among Malaysian young adults.

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Digital Financial Literacy, FinTech, Responsible FinTech Usage, Young Adults

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Introduction

The widespread diffusion of digital technologies has radically changed the global financial services industry and brought about the phenomenon of the Financial Technology (FinTech) revolution that has reshaped the way people access and manage financial services. FinTech is a broad term for a variety of to the use of technology to deliver innovative financial products and services including digital payments, mobile banking, digital lending, wealth management, and other technology-enabled financial services which are more convenient, accessible and efficient than traditional financial services (Lee & Shin, 2018; OECD, 2024). The deepening of digital technologies in financial services has helped to accelerate financial inclusion and increase consumers' access to new financial products. As digital finance has been evolving, FinTech now constitutes an inseparable part of today's financial ecosystems and not only revolutionizes how financial services are provided but also how consumers interact with financial products and make financial decisions (Agarwal & Zhang, 2020; Abis et al., 2025).

Malaysia has been pushing the growth of digital economy in the region as the country gets more digitized economically. With major investments on digital infrastructure such as Data Centers, 5G networks, Cybersecurity, and Artificial Intelligence, government officials of Malaysia are heavily promoting the country as the ASEAN digital economy hub. In addition, the government's goal is to drive faster digital adoption and transform Malaysia into an Asian hub for digital nomads (International Trade Administration, 2024). Especially using and awareness of FinTech has grown. The FinTech industry in Malaysia grew rapidly over the years, and it has several stages (Adnan et al., 2024). According to a 2023 study, 71% of Malaysians knew FinTech (hence proving the country's growing potential as a Southeast Asian market for financial services, especially digital), and it was estimated that the FinTech industry in Malaysia will generate approximately 365 million USD from digital assets and investments in the same year (Siddharta, 2024).

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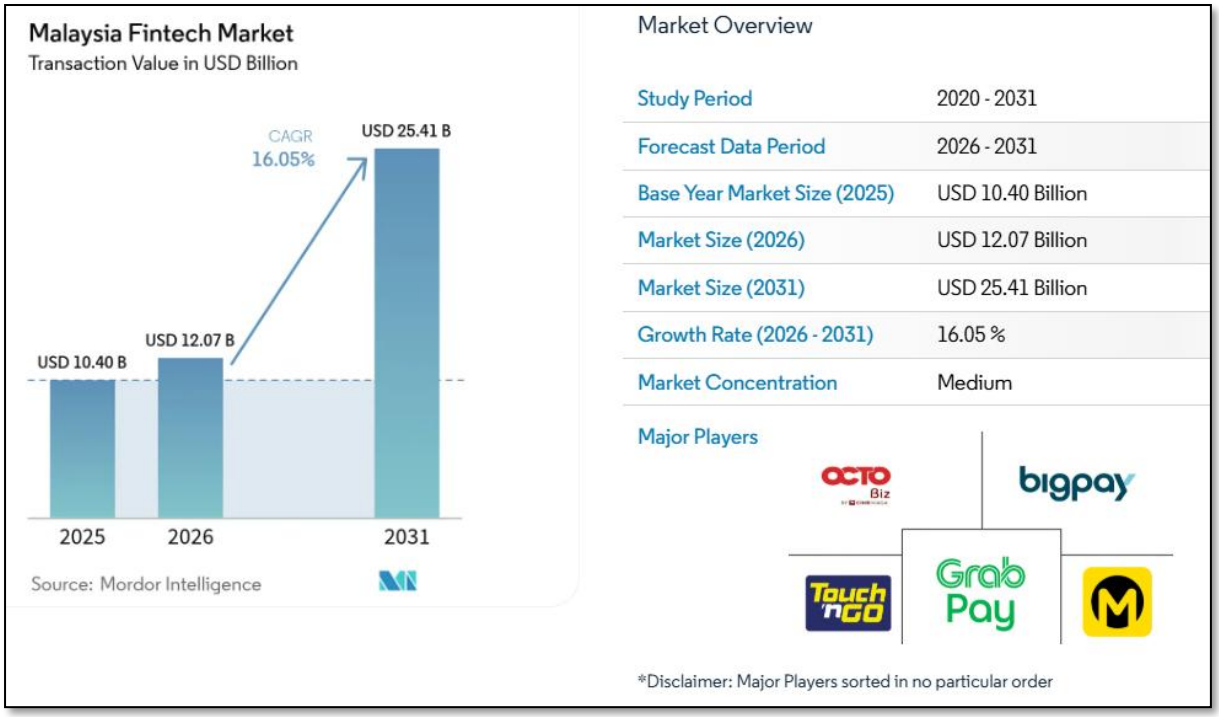


Figure 1: Growth In E-Payment Transactions In Malaysia
Source: Mordor Intelligence, 2026

Based on Figure 1, the Malaysian FinTech market was only expected to be worth USD 10.4 billion in 2025 and would grow at a CAGR of 16.05% from USD 12.07 billion in 2026 to USD 25.41 billion by 2031. This is because Malaysia serves as the hub of Islamic finance in Southeast Asia, it has an increasing number of customers who are more receptive to digital technology and has conducive sandbox rules.

This change is more prominent among young adults who are regarded as one of the most digitally connected age groups and normally are more receptive towards adopting any new technology innovation compared with other older age groups. Their digital technology acceptance and usage along with their involvement in online business transactions and digital financial transactions made them the key users of FinTech services (Nawang & Shukor, 2023) in Malaysia. Thus, young adults emerged as a group of interest to understand the digital financial behavior in the country's fast digital economy. A majority of Malaysia's online consumer is young, reported Vasudevan and Arokiasamy (2021) and this can be attributed to the fast development of infrastructure and technology. Meanwhile, Deputy Finance Minister Liew Chin Tong reported in Ringgit Plus (2026) that nearly 40% of BNPL transactions are done by Malaysian young adults under thirty. In an Ipsos Malaysia report in 2026, younger Malaysians are more embracing of digital payments; among the age groups 25-34, e-wallet usage was highest at 65%, which increased 20% from 2024 (Asian Banking and Finance, 2026). The statistics confirmed the increased use of FinTech among the young generations in Malaysia.

However, OECD (2025) and Abis et al. (2025) have pointed out that along with the FinTech benefits, the rapid expansion of digital financial services have also brought new financial difficulties and consumer protection concerns. Increasing adoption of digital financial products has exposed consumers to several risks such as online financial frauds, phishing attacks,

identity theft, misleading financial information, cyber crime, impulsive digital spending and reckless borrowing through easily accessible digital credit facilities. These issues are of particular concern for young adults who are one of the most active users of digital financial services but may have little financial experience and awareness of the digital financial risks (OECD, 2020; Nawang & Shukor, 2023). According to The Straits Times (2026), based on the data from the Ministry of Finance, young adults account for approximately 40% of all BNPL transactions in Malaysia. The easy access to instant credit has led to "debt accumulation by stealth", with online apps providing multiple micro-loans to the young consumer, adding more credit facilities. Local cyber-security researchers have also indicated data that show the 20 to 39 age bracket dominates the number of scam victims in Malaysia, enticed by their 24/7 usage of social media and virtual transaction corridors (Abd Aziz et al., 2026).

In the face of all these challenges, digital financial literacy (DFL) has therefore emerged as a core competence required by individuals participating in today's financial world which is increasingly being digitalized. In a holistic view, which is different than traditional financial literacy focused mainly on financial knowledge and personal financial management, digital financial literacy consists, in addition to financial knowledge and personal financial management, of the further knowledge, skills, awareness and competences needed to access, evaluate, and safe use digital financial products, services, and solutions. In general, individuals with a higher level of digital financial literacy are more likely to be able to understand digital financial products and services, recognize financial and cybersecurity risks, analyze financial information, protect personal financial data, and make informed financial decisions when transacting in the digital world (Morgan et al., 2019; Lyons & Kass-Hanna, 2021). However, although the younger demographics are incredibly receptive to adopting FinTech for its convenience, general awareness in the terms of risk and terms of FinTech product use are delibly low among the youth. With that being said, although FinTech has largely improved financial accessibility, ensuring that consumers will possess the necessary abilities to make a responsible use of the digital financial services has become an equally pressing concern over the digital economy (French et al., 2020).

Despite the increasing body of work in FinTech and DFL, there are also some gaps. Firstly, there is an empirical gap of the studied findings in the previous FinTech work. Most of the previous works focused only on FinTech adoption, behavioral intention, and actual usage. In a recent work with the young people in Malaysia, they investigate how DFL drives the actual usage of AI-enabled FinTech applications (Jahanzeb et al., 2026). However, the actual usage of digital financial services does not necessarily imply customers' usage of financial services in a responsible manner. How consumers manage financial risks, protect their data, evaluate financial decisions and engage in safe financial practices after they adopt digital financial services have been studied lesser in this domain and hence it is desired to go beyond the discussions on if people use FinTech to how people use FinTech responsibly.

Second, the connection between DFL and ethical FinTech behaviors is conceptually problematic. Most DFL research, so far, has been on people's awareness and knowledge regarding digital financial services and products. But being aware and knowledgeable of possible risks when dealing with digital finance does not always account for how these skills translate into responsible behavior when people engage with FinTech services. As a result, the conceptual link between people's awareness of digital financial threat and their responsible financial behavior towards such a risk is still missing. To bridge such gap, in this study we consider appropriate FinTech usage as a behavioral outcome of digital financial literacy.

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Theoretically, some theories such as Theory of Planned Behavior (TPB), Unified theory of acceptance and use of technology (UTAUT) and Technology acceptance model (TAM) have been used in previous FinTech research to describe the consumer's adoption and usage intention. These concepts have been focused on identifying factors influencing to adopt, intention and usage of technology. However, people's theoretical foundations of responsible behavior after using digital financial services are less studied. A relevant perspective is provided by the Protection Motivation Theory (PMT), which describes how people recognize potential threats, evaluate their ability to cope with them, and become motivated to engage in protective behavior.

Therefore, this conceptual paper seeks to design a conceptual framework to explain the impact of digital financial literacy toward responsible FinTech usage among Malaysian young adults based on the Protection Motivation Theory (PMT). By combining digital financial literacy and PMT, our study contributes to FinTech literature by moving beyond technology adoption and focusing on responsible digital financial behavior. On the other hand, the framework is also an addition to the growing digital financial literacy literature by considering responsible FinTech usage as a specific behavior outcome in the digital finance context. The framework suggested in this paper should play a theoretical role to extend the usage of PMT in digital finance literature and be applied by policymakers, financial institutions, FinTech providers and educationists to provide useful information in designing schemes for the development of digital financial literacy, protection of their consumers and fostering responsible participation in Malaysia's digital financial ecosystem.

Literature Review

Digital Financial Literacy

The rapid development of digital financial services and financial technology (FinTech) has made digital financial literacy (DFL) increasingly important. DFL integrates the digital skills and competences necessary to access, assess, and use digital financial products and services securely and effectively, in contrast to traditional financial literacy, which concentrates on people's knowledge and comprehension of financial concepts. The growing use of mobile banking, e-wallets, digital payments, online investment platforms, and digital lending therefore requires individuals to possess both financial knowledge and the ability to manage risks associated with digital technologies. DFL can consequently be understood as an integration of financial literacy and digital literacy that enables individuals to make informed financial decisions in digital environments (Lyons & Kass-Hanna, 2021).

Although definitions and measurement approaches vary, existing literature generally conceptualizes DFL as a multidimensional capability that includes financial knowledge, digital skills, risk awareness, and the ability to manage risks when using digital financial services (Lyons & Kass-Hanna, 2021; OECD, 2023). OECD/INFE (2023) also considers digital financial literacy as a key part of financial capacity in the digital age, where individuals must comprehend both the benefits and risks of digital financial services. Thus, DFL encompasses more than just understanding how digital financial services work; it also includes the ability to identify risks, assess financial information, and use digital financial services effectively.

This issue matters especially for young adults. Although young individuals are generally familiar with digital technologies and frequently interact with digital platforms, this familiarity does not necessarily imply adequate financial awareness or risk-management abilities. Their growing exposure to digital payments, online banking, digital credit, and other FinTech services expands their chances for financial engagement while also exposing them to risks such as fraud, excessive borrowing, data security threats, and poor financial choices. Understanding DFL among young individuals is critical since their financial activities are increasingly undertaken in digital contexts.

Results from the OECD/INFE 2023 International Survey of Adult Financial Literacy indicate that digital financial literacy levels are low and may be insufficient to ensure the safe and informed use of digital payments, given the opportunities and risks posed by digital financial services (OECD, 2023). Regarding young adults, it cannot be assumed that they have all the expertise, skills, and understanding required to use the technology, even though they have grown accustomed to digital finance through online banking and shopping (Raj, 2021). They may ignore some safety considerations even though they feel more comfortable using digital media. As a result, while being surrounded by digital technology, they might not be digitally literate (Nawang & Shukor, 2023).

In Malaysia, Nawang and Shukor (2023) investigated digital financial literacy among young adults and conceptualized it using four dimensions adapted from Morgan et al. (2019): knowledge of digital financial products and services, awareness of digital financial risks, knowledge of digital financial risk control, and knowledge of consumer rights and redress. These characteristics illustrate that DFL is more than just knowledge of digital financial products. It also requires the capacity to identify potential risks, implement proper risk-management strategies, understand consumer rights, and seek appropriate remedy when problems develop. Such competencies are especially important for the proper use of digital financial services.

As a result, DFL can be seen not just as knowledge, but as a capability that supports responsible financial conduct in digital contexts. Individuals who understand digital financial products, realize associated threats, know how to control those risks, and understand their financial consumer rights are better positioned to make informed decisions when interacting with FinTech services. This behavioral dimension provides a foundation for investigating whether DFL promotes responsible FinTech usage among young adults.

Responsible FinTech Usage

According to Abis et al. (2025), the swift growth of Financial Technology (FinTech) has revolutionized customer access to and management of financial services by providing increased efficiency, convenience, and accessibility. Mobile banking, e-wallets, digital payments, online investment platforms, and digital lending are examples of digital financial services that have become essential components of consumers' everyday financial activities. Although these innovations offer substantial advantages, they also put users at risk for several financial and cybersecurity issues, such as excessive borrowing, identity theft, online fraud, data privacy breaches, and impulsive spending (Warokka et al., 2025; Dervishaj et al., 2025; Oni et al., 2025; Riaz & Iqbal, 2025). Due to these challenges, the focus is now on promoting FinTech's responsible usage rather than just encouraging its adoption.

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Accessibility, adoption, usage, and the quality of digital financial services have all been extensively studied in the FinTech literature to date (Abis et al., 2025). These viewpoints are crucial for comprehending how customers interact with FinTech, but they pay less attention to the behavioral skills needed to use these services responsibly, safely, and appropriately. Therefore, responsible FinTech usage is conceptualized in this paper as a broader behavioral result that extends beyond the frequency or intention to utilize digital financial services. The idea was created by integrating research on safe digital financial practices, digital financial capacity, responsible finance, and financial decision-making (Panos & Wilson, 2020; Lyons & Kass-Hanna, 2021; OECD, 2025).

In this paper, responsible FinTech usage refers to the ability to use digital financial services in a safe, informed, and financially prudent manner while recognizing potential risks and taking appropriate actions to manage them. It encompasses three interconnected behavioral domains: responsible digital financial management, safe digital financial practices, and responsible financial decision-making (OECD, 2025; Panos & Wilson, 2020; McKillop et al., 2020). Making responsible financial decisions involves avoiding inappropriate financial commitments and assessing the suitability and implications of digital financial products before using them. Protecting financial and personal data, implementing suitable security measures, and identifying possible online risks are all part of safe digital financial practices. Monitoring digital transactions, handling financial commitments, and maintaining control over financial operations carried out via digital platforms are all components of responsible digital financial management.

This concept is especially important to young adults, who are among the most frequent consumers of digital financial services but are still more vulnerable to online fraud, impulsive financial decisions, and digital financial exploitation because of their use of digital technologies (Nawang & Shukor, 2023). As a result, this paper conceptualizes responsible FinTech usage as an individual's ability to use digital financial services in a way that is secure, knowledgeable, and sensible while safeguarding personal and financial data and making long-term financial decisions.

From the standpoint of consumer protection, digital financial literacy and responsible FinTech use are strongly related. When using FinTech services, people with higher levels of digital financial literacy are more likely to comprehend digital financial products better, identify possible risks, critically assess financial information, and adopt safer financial practices (Lyons & Kass-Hanna, 2021; OECD, 2025). Higher levels of digital financial literacy have been linked to more confident use of digital financial services, risk assessment, adoption of safer financial practices, and ultimately improved financial outcomes, according to prior research (Almanaseer et al., 2024; Lo Prete, 2022). As a result, this article suggests that greater DFL levels should motivate young adults to use FinTech services in a way that is safer, more knowledgeable, and financially responsible.

Theoretical Foundation

Protection Motivation Theory (PMT)

Protection Motivation Theory (PMT) was first proposed by Rogers (1975) and further developed by Rogers (1983). It describes how individuals can be motivated to perform a protection behavior if they perceive a potential threat and believe they have the ability to cope

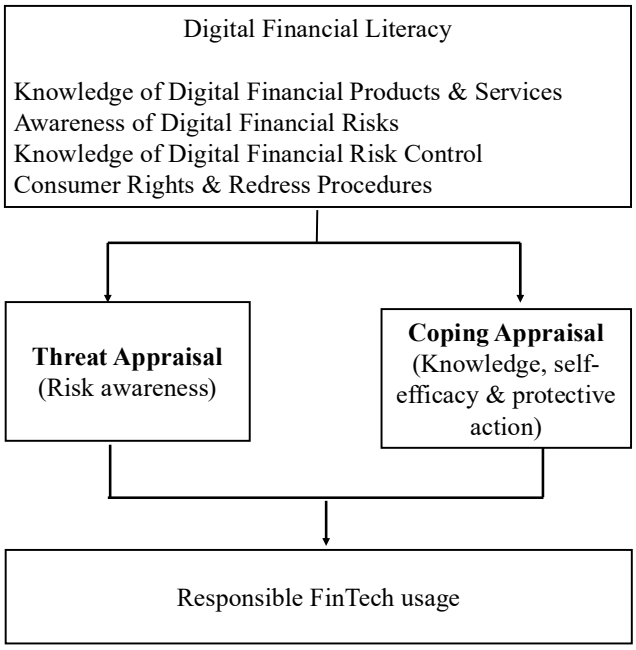
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with the threat. PMT states that the protection behavior is a function of two cognitive appraisal processes: threat appraisal, which is the evaluation of the severity of and vulnerability to a potential threat, and coping appraisal, which is the evaluation of one's confidence to perform a protection behavior, the effectiveness of the behavior, and the costs associated with it (Rogers, 1975, 1983). PMT has been extensively used in many different fields such as health behaviour, information security, cybersecurity and online banking to describe the reasons for why people perform behaviours which minimize or avoid potential negative consequences (Floyd et al., 2000; Jansen & Van Schaik, 2021).

The application of PMT becomes more and more suitable for dealing with the digital world, in which people are inevitably faced with the financial and cybersecurity threats. Previous research found that people are more likely to behave protectively online when they are aware of the potential threat and believe that they are able to take effective protective actions (Liang & Xue, 2010; Jansen & van Schaik, 2018). For digital financial services, facing the threats of online fraud, phishing attacks, identity theft, data breaches and irresponsible digital borrowings, etc., the digital financial consumers have to perceive potential risks in order to make decisions for or against using a certain digital financial service. Thus, PMT is an appropriate theoretical lens to explain how young adults develop protect behaviors against emerging digital risks in finance.

Drawing on PMT, this paper postulates that digital financial literacy is a significant personal capability that benefits threat appraisal and coping appraisal. In particular, the four dimensions of digital financial literacy by Morgan (2019) can be conceptually mapped onto the cognitive processes in PMT. Digital financial risk awareness reinforces threat appraisal. That is, through digital financial risk awareness, young adults can perceive the threats of digital financial services (e, g. online scams, phishing, identity theft, and reckless digital borrowing). Meanwhile, the digital financial product and service knowledge, the digital financial risk control knowledge and the consumer rights and redress procedure knowledge complement the coping appraisal that equip young adults with the knowledge, confidence and the practical skills to analyse the financial information, to take proper protection measures and to act accordingly when financial problems arise. Consequently, young adults with high digital financial literacy are likely to have higher protection motivation which helps them to make wise financial decisions, guard their personal and financial information as well as use FinTech responsibly.

To that end, PMT would be a proper theoretical foundation in describing the relationship between digital financial literacy and responsible FinTech usage among the young adults in Malaysia. By incorporating the dimensions of digital financial literacy with the threat and coping appraisal processes of PMT, this study not only applies the theory to the digital finance context but also presents a behavioral explanation on how digital financial literacy leads to responsible FinTech usage.

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Based on Protection Motivation Theory (PMT)

Figure 2: Mapping of Digital Financial Literacy Dimensions to Protection Motivation Theory

Proposed Conceptual Framework and Hypothesis Development

According to the proposed conceptual framework, young people's abilities to use FinTech in a responsible way mainly depend on their digital financial literacy level. Young people have to make financial decisions in an environment characterized by convenience, rapid technology development, and emerging financial risks as digital financial services are increasingly embedded into and supporting everyday financial activities. The proposed PMT-based framework posits that the protection behavior of humans depends on their capability of identifying financial risks and assessing how to best address the identified risk. In the context of digital financial services, the advantage of PMT is that it offers a beneficial framework that can be used to describe how digital financial literacy could promote responsible FinTech use. Digital financial literacy helps individuals acquire knowledge and awareness to identify and respond to potential digital financial risks such as fraud, phishing, privacy breach, unsuitable financial products, and overborrowing. People may be better equipped to deal with such risks if they know what they are and how they are likely to play out.

By enhancing people's understanding of appropriate ways to deal with digital financial risks, digital financial literacy can also play a role in coping appraisal. Knowledge of consumer rights, safe digital behaviors, ways to control digital financial risk, and available redress mechanism may help people identify what to do when the danger occurs. For example, if a person is informed of the risk of phishing and has knowledge on how to check digital communications, they would regard taking precautions as easier and more efficient. In much the same way, the knowledge of consumer rights and redress processes could make people more aware of the options available to them in the event of financial difficulties or disputes. In PMT terms, these facts could facilitate coping appraisal through improvements in response efficacy and self-efficacy.

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The appraisal procedures introduced by PMT provide a theoretical explanation of how awareness and knowledge may elicit the right behavioral response. These appraisals can give rise to protection motivation when digital financial risks are perceived by young adults, and they are convinced that preventive measures are possible and effective. FinTech use behaviors aimed at mitigating or controlling digital financial risk, including checking links before sharing financial information, deploying a high level of security, monitoring digital transactions, choosing the right financial products and not overusing or using digital credit in an abusive way, can then be leveraged to deliver protection motivation. So, responsible FinTech use can be framed as a behavioral outcome, that is, a reaction defending from cybersecurity and digital financial attacks.

As such, instead of being a set of additional constructs in the proposed conceptual framework as advised in, PMT is used in the current work as an underlying theoretical lens. The proposed conceptual framework of the current work is presented in Figure 3.

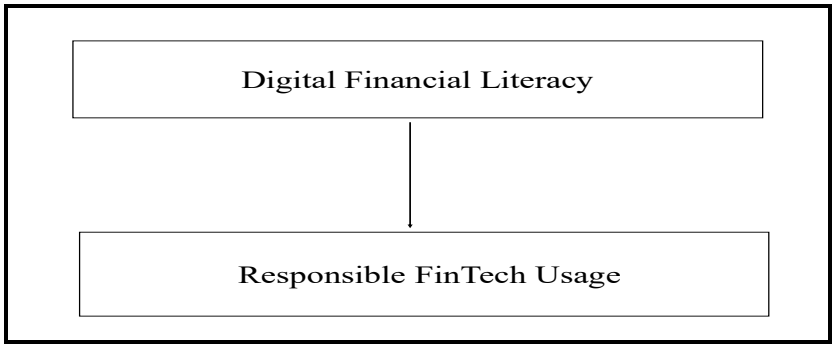


Figure 3: Conceptual Framework

Digital Financial Literacy and Responsible FinTech Usage

Digital financial literacy is conceptualised as a multidimensional capability that includes knowledge of digital financial products and services, awareness of digital financial risk, knowledge of digital financial risk control, and knowledge of consumer rights and redress procedures (Nawang & Shukor, 2023). These dimensions enable people to safely and effectively understand and use digital financial services; to perceive risks and take appropriate protection measures; and to react to problems in case they arise. These capacities are particularly relevant for young adults. This new generation of adults is increasingly using mobile banking applications, e-wallet and digital payment platforms as well as other FinTech services.

Each facet of digital financial literacy can play a complementary role in promoting responsible FinTech usage. The awareness of digital financial products and services helps the young adults to acquire information about different digital financial service features, costs, benefits, and limitations to make informed financial decisions. The information about the products and services will help them to evaluate their options and prevents inappropriateness financial commitments. For instance, knowledge about interest rates, costs and terms of digital credit products allows consumers to borrow less (OECD, 2023). Knowledge about digital financial risks can allow people to recognise threats such as online scams, phishing, identity theft and excessive digital borrowing, and make more informed and cautious financial decisions.

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Knowledge of digital financial risk control also equips individuals with practical ways to safeguard their personal and financial information while using FinTech services. For example, such knowledge can help to adopt correct cyber security practices, identify digital threats and guard against financial information (Kumari, 2026). This is especially crucial in the face of risks associated with online scams, fraud, misuse of data and unauthorised transactions which are on the rise. In addition, by allowing users to know their rights and redress procedures, users will be able to know when they are wronged, seek the right help, and use the available complaint and dispute resolution mechanisms if things go wrong (Ilias et al., 2021; OECD, 2025). Overall, such competences can empower users to make smart decisions, avoid feel digital financial risks, and react accordingly if financial issues arise.

Taken together, the four dimensions imply that DFL is more than the capability to comprehend financial products. It also provides individuals with the knowledge needed to identify risks and evaluate the appropriate responses to them, to safeguard their financial and personal information, and to exercise their rights as financial consumers. Therefore, we see that DFL can play a role in a key building block of responsible FinTech use, i.e., take responsible financial decision, engage in safe financial practices and managing digital financial services responsibly.

From the viewpoint of Protection Motivation Theory (PMT), individuals are more likely to engage in protective behavior if they perceived potential threats and if they believe that taking appropriate responses is effective and possible. In FinTech context, DFL could enhance people's capability of identifying potential financial and cybersecurity threats and taking proper protective responses against them. Young adults with more DFL may thus be more able to evaluate risks when using FinTech services and behave responsibly when using these services. Accordingly, this paper proceeds with the following hypothesis:

H1: Digital financial literacy is positively associated to responsible FinTech usage among Malaysian young adults.

Conclusion and Implications

The rapid growth of FinTech has transformed the way young adults' access and manage financial services, bringing more financial convenience and, at the same time, exposing users to new financial and cybersecurity threats. While digital financial literacy has been extensively researched in the literature as it relates to financial behavior, financial inclusion, and financial well-being, we know less about how it is used to promote responsible FinTech usage. To fill this void, this conceptual paper proposes a framework to conceptualize digital financial literacy as one of the primary capabilities that affects responsible FinTech usage among Malaysian young adults based on the Protection Motivation Theory (PMT).

According to the proposed framework, digital financial literacy is more than digital financial product and service knowledge. It also includes digital financial risk awareness, digital financial risk control knowledge, and consumer rights and redress procedure knowledge, which altogether empower young adults to make sound financial decisions and engage in safer financial practices. Guided by PMT, the framework introduces how these competences enable people to better identify potential harms and take appropriate safe financial behavior when using digital financial services. Thus, the more people are digitally financially literate, the more carefully, securely, and sustainability they will be using FinTech.

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From the theoretical point of view, this paper makes a positive contribution to the expanding digital financial literacy literature, by incorporating responsible FinTech usage as a different behavioral outcome, and by extending the use of PMT in the digital finance context. Practically, the proposed framework provides the policymakers, financial institutions, FinTech providers, and the educational institutions with informative insights to design programs to improve the digital financial literacy and promote a responsible digital financial behaviour of the young adults that may reduce their vulnerability toward financial issues, protect consumers from being overcharged and make the MFEC safer in the digital financial ecosystem in Malaysia.

As this is a conceptual paper, empirical verification of the proposed framework is recommended for future research. The future research can also investigate the proposed relationship with other demography, or study by country, or merge with other variables such as financial self-efficacy, trust, financial resilience, or perceived risk to further explain the responsible FinTech usage. Such an endeavour would help increase understanding of what constitutes responsible digital financial behaviour and could drive the design of more effective financial literacy interventions in an increasingly digital economy. Ultimately, improving digital financial literacy among young adults is not simply a matter of increasing financial knowledge, but enabling people to use FinTech in a responsible, secure and sustainable manner in an ever increasingly digital financial world.

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Declaration on the Use of Artificial Intelligence (AI) "The authors declare that generative AI or AI-assisted technologies were used during the preparation of this manuscript. The following tools were used: Grammarly, Quillbot and ChatGPT. The tools were used for language editing, grammar improvement, translation, and paraphrasing. All AI-assisted content was reviewed and verified by the authors, who take full responsibility for the accuracy, originality, integrity, and final content of the manuscript."

References

Abd Aziz, N. A. (2026). Determinants of youths' awareness of investment scam threats in Malaysia. *Insight Journal, 13*(2).

Abis, D. P., & Limbu, Y. (2025). FinTech and consumers: A systematic review and integrative framework. *Management Decision, 63*(1), 49–75.

Adnan, M. F. (2024). Navigating the hazards: Assessing the consumer risks of fintech in Malaysia: A conceptual study. *International Journal of Research and Innovation in Social Science, 8*(10), 1352–1360. https://doi.org/10.47772/IJRISS.2024.8100116

Agarwal, S., & Zhang, J. (2020). FinTech, lending and payment innovation: A review. *Asia-Pacific Journal of Financial Studies, 49*(3), 353–367.

Almanaseer, S. R., Al-Slehat, Z. A. F., Al Sharif, B. M., Aloshaibat, S. D., Al-Haraisa, Y. E., & Almahasneh, M. A. (2024). Financial literacy and mobile banking usage: The moderating role of demographic characteristics. *International Review of Management and Marketing, 14*(6), 424–432. https://doi.org/10.32479/irmm.17386

Asian Banking and Finance (2026). *E-wallet use jumps to 65% amongst Malaysia's 25- to 34-year-olds*. Asian Banking & Finance. https://asianbankingandfinance.net/cards-payments/in-focus/e-wallet-use-jumps-65-amongst-malaysias-25-34-year-olds

Dervishaj, B., Dervishaj, N., & Mucaj, E. (2025). Cybersecurity in fintech: Challenges and strategies. *Proceedings of the International Conference on New Ideas in Management, Economics and Accounting, 2*, 10–23. https://doi.org/10.33422/imeaconf.v2i1.1005

French, D., McKillop, D., & Stewart, E. (2020). The effectiveness of smartphone apps in improving financial capability. *The European Journal of Finance, 26*(4–5), 302–318. https://doi.org/10.1080/1351847X.2019.1639526

Ilias, I. I., Hassan, R., Kassim, S., & Abu Bakar, E. (2021). Consumer credit grievance and redress mechanisms: The Malaysia perspective. *UUM Journal of Legal Studies, 12*(2), 61–88. https://doi.org/10.32890/uumjls2021.12.2.4

Jahanzeb, A. X. (2026). Beyond intention: The critical role of digital financial literacy in the actual usage of AI-enabled fintech applications in Malaysia. *Future Business Journal, 12*, 108. https://doi.org/10.1186/s43093-026-00818-5

Jansen, J., & van Schaik, P. (2018). Testing a model of precautionary online behaviour: The case of online banking. *Computers in Human Behavior, 87*, 371–383. https://doi.org/10.1016/j.chb.2018.05.010

Kumari, A. (2026). Personal data protection in the age of digital financial systems. *Electronic Government, an International Journal, 22*(2), 220–240.

Liang, H., & Xue, Y. (2010). Understanding security behaviors in personal computer usage: A threat avoidance perspective. *Journal of the Association for Information Systems, 11*(7), 394–413. https://doi.org/10.17705/1jais.00232

Lee, I., & Shin, Y. J. (2018). Fintech: Ecosystem, business models, investment decisions, and challenges. *Business Horizons, 61*(1), 35–46. https://doi.org/10.1016/j.bushor.2017.09.003

Lo Prete, A. (2022). Digital and financial literacy as determinants of digital payments and personal finance. *Economic Letters, 213*, 110378. https://doi.org/10.1016/j.econlet.2022.110378

Lyons, A., & Kass-Hanna, J. (2021). A multidimensional approach to defining and measuring financial literacy in the digital age. *SSRN Electronic Journal*.

Marwaha, P. (2025, August 25). *To empower young minds, we must equip children for a safer financial future*. Down To Earth. https://www.downtoearth.org.in/governance/to-empower-young-minds-we-must-equip-children-for-a-safer-financial-future

Mordor Intelligence (2026). *Malaysia fintech market size & share analysis—Growth trends and forecast (2026–2031).* Mordor Intelligence. https://www.mordorintelligence.com/industry-reports/malaysia-fintech-market

Morgan, P. J., Huang, B., & Trinh, L. O. (2019). *The need to promote digital financial literacy*. Asian Development Bank Institute.

Nawang, W. R. W., & Shukor, S. A. (2023). Digital financial literacy among young adults in Malaysia. *International Business Education Journal, 16*, 15–26. https://doi.org/10.37134/ibej.Vol16.2.9.2023

OECD. (2020). *Advancing the digital financial inclusion of youth*. OECD Publishing.

OECD. (2022). *G20/OECD-INFE report on digital financial literacy*. OECD Publishing.

OECD. (2023). *OECD/INFE 2023 international survey of adult financial literacy* (OECD Business and Finance Policy Papers No. 39). OECD Publishing. https://doi.org/10.1787/56003a32-en

OECD. (2024). *OECD/INFE survey instrument to measure digital financial literacy*. OECD Publishing. https://doi.org/10.1787/548de821-en

OECD. (2025). *Supporting informed and safe use of digital payments through digital financial literacy*. OECD Publishing. https://doi.org/10.1787/21de47d1-en

Oni, O., Japinye, A., Ifarajimi, G., & Olubowale, O. (2025). Regulating fintech for financial stability in Nigeria: Balancing cybersecurity risks and financial inclusion. *African Journal of Economics and Business Research, 4*, 202.

Pak, T. Y., Chaterjee, S., & Chong, Y. (2026). Navigating digital finance: How digital financial literacy influences digital financial services use and benefits in Korea. *Financial Innovation, 12*, 42.

Panos, G. A., & Wilson, J. O. S. (2020). Financial literacy and responsible finance in the FinTech era: Capabilities and challenges. *The European Journal of Finance, 26*(4–5), 297–301. https://doi.org/10.1080/1351847X.2020.1717569

Putri, G. A., Widagdo, A. K., & Setiawan, D. (2023). Analysis of financial technology acceptance of peer-to-peer lending (P2P lending) using extended technology acceptance model (TAM). *Journal of Open Innovation: Technology, Market, and Complexity, 9*(1), 100027. https://doi.org/10.1016/j.joitmc.2023.100027

Riaz, S., & Iqbal, J. (2025). *Seamless financial services and fintech innovation: Tackling cyber risk, fraud detection, and data privacy in banking and finance*. ResearchGate. https://doi.org/10.13140/RG.2.2.26796.78722

Ringgit Plus (2026, March 13). *BNPL use among Malaysian youth raises concern as new consumer credit law takes effect*. RinggitPlus. https://ringgitplus.com/en/blog/personal-finance-news/bnpl-use-among-malaysian-youth-raises-concern-as-new-consumer-credit-law-takes-effect.html

Rogers, R. W. (1975). A protection motivation theory of fear appeals and attitude change. *The Journal of Psychology, 91*(1), 93–114. https://doi.org/10.1080/00223980.1975.9915803

Rogers, R. W. (1983). Cognitive and physiological processes in fear appeals and attitude change: A revised theory of protection motivation. In J. T. Cacioppo & R. E. Petty (Eds.), *Social psychophysiology: A sourcebook* (pp. 153–176). Guilford Press.

Siddharta, A. (2024, June 20). *Fintech in Malaysia—Statistics & facts*. Statista. https://www.statista.com/topics/12350/fintech-in-malaysia/#topicOverview

Times, T. S. (2026, March 17). *Young Malaysians find themselves in growing debt trap*. The Straits Times. https://www.straitstimes.com/asia/se-asia/young-malaysians-find-themselves-in-growing-debt-trap

TradeAdministration, I. (2024, September 9). *Country commercial guide: Malaysia's digital economy*. U.S. Department of Commerce. https://www.trade.gov/country-commercial-guides/malaysia-digital-economy

Vasudevan, P. (2021). Online shopping among young generation in Malaysia. *Electronic Journal of Business and Management, 6*.

Warokka, A., Sartika, D., & Aqmar, A. Z. (2025). Digital credit and debt traps: Behavioral and socio-cultural drivers of FinTech indebtedness in Indonesia. *FinTech, 4*(4), 62. https://doi.org/10.3390/fintech4040062

Wong, M. Y., Croarkin, P. E., Lee, C. K., & Lee, P. F. (2021). Validation of pictorial mood assessment with Ottawa Mood Scales and the positive and negative affect scale for young adults. *Community Mental Health Journal, 57*, 529–539. https://doi.org/10.1007/s10597-020-00715-1