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Integrating the Technology Acceptance Model and *Hifz al-Mal*: Digital Financial Literacy and Digital Payment Adoption in Shaping Financial Behaviour

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Abstract

The rapid growth of digital financial technologies has reshaped the global payment landscape, contributing to the shift toward a cashless society. While digital payment platform offers greater convenience and efficiency, they can also affect how individuals manage their finances and make spending decisions. This study examines the influence of digital financial

literacy and digital payment adoption on responsible financial behaviour by integrating Technology Acceptance Model (TAM) with the Islamic principle of *Hifz al-Mal* (protection of wealth). Using a quantitative research design, data were collected among 210 university students who actively use digital payment platforms. The study employs Partial Least Squares Structural Equation Modelling (PLS-SEM) to examine the proposed research model. The findings reveal that digital payment usage has a positive and significant effect on financial behaviour and digital financial literacy emerged as the strongest predictor. This study contributes theoretically by integrating TAM and *Hifz al-Mal* into the domain of financial behaviour and highlighting the critical role of digital financial behaviour as both a driver and a protective mechanism against financial risk.
Keywords: Digital Payments, Digital Financial Literacy, Financial Behaviour, Technology Acceptance Model (Tam) And *Hifz Al-Mal* (Protection Of Wealth)

Introduction

The rapid advancement of digital technologies has markedly transformed the global financial landscape. In recent years, many economies have experienced an accelerated shift from traditional cash-based transactions to digital and digital payment platform. The growing adoption of mobile banking, digital wallets, and online payment platforms has also influenced consumer financial behaviour and altered patterns of consumption. These technological developments have accelerated the global transition from cash-based transactions to digital payment platform. According to the Consumer Payment Attitudes (CPA) study by Visa, the shift towards digital payments is driven primarily by Generation Z (Gen Z) and Generation Y (Gen Y), with nearly four out of five respondents successfully adopting a cashless lifestyle. This Malaysian study shows that seven out of 10 Malaysian consumers have tried adopting a cashless lifestyle, with Gen Z and Gen Y leading the way at 85 percent and 78 percent respectively (Kamaruddin, 2026). Evidence also suggests that cashless payment methods may be associated with higher consumer spending, partly because digital transactions can reduce the psychological salience of money during purchasing decisions (Schomburgk et al., 2024).

The growth of the digital economy has enabled consumers to conduct financial transactions quickly and conveniently. Digital payment platforms, including e-wallets, online banking, and mobile payment applications, enable users to conduct transactions without relying on physical currency. Although these technological advancements improve financial efficiency, they also raise concerns about potential behavioural risks in financial decision-making. The study conducted by Visa in Malaysia also listed reasons why people are carrying less cash such as: using more contactless payment methods (61%), more places using digital payments (54%), and feeling that carrying cash is not safe because it can be lost or stolen (42%) (Kamaruddin, 2026). Consumers can now perform financial transactions instantly through mobile devices, enabling seamless participation in the digital marketplace. Governments and financial institutions have increasingly promoted the use of digital payments as a way to improve financial inclusion and support greater economic efficiency (Emini et al., 2026).

One major concern associated with digital payments is the potential decline in financial awareness and spending discipline (Maina et al., 2026; Muliani et al., 2026; Parti et al., 2026; Shalini et al., 2026; Taqbira & Susilo, 2026). Unlike cash transactions, digital payments reduce the psychological perception of spending, which may encourage impulsive purchasing behaviour (Lahiri, 2026). As a result, individuals may become less aware of their spending

habits, leading to poor financial management. This phenomenon is commonly referred to as the "pain of paying", where the physical act of handing over cash creates a stronger emotional response compared to digital transactions. In a cashless environment, therefore, understanding why individuals adopt digital payment technologies may be insufficient to explain whether they subsequently demonstrate prudent spending, effective financial control and responsible financial decision making.

Furthermore, the increasing reliance on digital financial platforms has also exposed users to new risks such as online scams, phishing attacks, and digital fraud. Individuals with lower levels of digital financial literacy may be more susceptible to these risks, especially younger consumers who regularly rely on digital transactions (Batubara et al., 2026; Deng et al., 2026; Maina et al., 2026). Previous studies have shown that digital payment platform may encourage impulsive purchasing behaviour due to the reduced psychological barriers associated with spending. The absence of physical currency makes digital transactions feel less tangible, which can weaken individuals' financial self-control and awareness of spending.

Despite the growing popularity of digital payment platforms, empirical research examining the relationship between digital payment adoption, digital financial literacy, and financial behaviour by integrating TAM and *Hifz al-Mal* remains limited (Fajri & Atmaja, 2026). TAM explains the technological dimension of digital payment adoption, whereas *Hifz al-Mal* establishes the normative direction for the use of financial technology in ways that protect and preserve wealth. This integration is important because the convenience and accessibility of digital payment technologies do not inherently ensure financially responsible outcomes. The inclusion of financial literacy and financial risk further strengthens this perspective by recognising the role of individual financial capability in making informed decisions and managing potential financial harm (Seldal & Nyhus, 2022). The relationship between dimensions can be further understood through the normative objective of Hifz al-Mal which emphasises the responsible preservation and management of wealth (Kamali, 2025).

Therefore, this study extends TAM by incorporating the transition toward a cashless society influences financial behaviour among young consumers in a Shariah-compliant context. In this study, university students represent one of the most active user groups of digital financial services. Their high level of engagement with digital platforms, combined with limited financial experience, may increase their exposure to financial risks such as impulsive spending and online scams (Yen et al., 2025; Muliani et al., 2026; Pratiwi et al., 2026; Taqbira & Susilo, 2026).

Specifically, this study seeks to address the following research questions:

i. How does the use of digital payment platform influence individual financial behaviour?
ii. What is the role of digital financial literacy in shaping responsible financial behaviour in the digital economy?
iii. Does digital financial literacy reduce financial risks associated with digital payment platform?

Literature Review

Financial Behaviour in the Digital Environment

Financial behaviour refers to individuals' actions and decision-making processes related to money management, including spending, saving, budgeting, and investing (Aoun et al., 2026; Khurana & Sharma, 2026; Sharif & Mohamed, 2026). The digital economy refers to economic activities enabled by digital technologies, including electronic commerce, digital banking, and online financial services (Pratiwi et al., 2026; Sharif & Mohamed, 2026). The widespread adoption of smartphones, mobile applications, and internet connectivity has accelerated the growth of digital financial ecosystems.

In the digital economy, some previous researchers such as Farhana, (2025), Groda & Kusbianto, (2026) and Shalini et al., (2026) believe that financial behaviour has evolved significantly due to the increasing use of online financial platforms. While digital payments offer convenience, they may also influence spending behaviour by reducing the psychological barriers associated with financial transactions. Digital payment platform allows consumers to perform financial transactions without using physical currency. These systems include credit cards, debit cards, online banking platforms, mobile wallets, and contactless payment technologies.

Research indicates that consumers tend to spend more when using digital payment methods compared to cash. This phenomenon is often referred to as the "pain of paying", where physical cash transactions create a stronger psychological awareness of spending than digital payments. A study by Khurana & Sharma, (2026) found that behavioural economics provides important insights into how individuals make financial decisions. One key concept in behavioural finance is the pain of paying, which refers to the psychological discomfort associated with spending money. When consumers pay with cash, they physically experience the loss of money, which creates a stronger emotional reaction and encourages spending restraint. In contrast, digital payment platform reduces this psychological friction, making transactions feel less tangible and more abstract.

Moreover, studies by Farhana, (2025), Muliani et al., (2026) and Shahputra et al., (2026) have shown that digital payments reduce spending awareness and increase the likelihood of impulsive purchases. This behavioural phenomenon suggests that digital payment platform may unintentionally encourage excessive consumption and weaken financial discipline.

Digital Payment

The expansion of digital infrastructure and internet accessibility has accelerated the adoption of digital payment platform globally. Digital payments involve financial transactions conducted without physical currency, typically through digital platforms such as mobile banking, debit cards, credit cards, and electronic wallets (Sharif & Mohamed, 2026). These systems offer several advantages, including transaction efficiency, improved financial inclusion, and enhanced security. However, recent studies by Farhana, (2025), Lahiri, (2026), Muliani et al., (2026) and Shalini et al., (2026) proved that the shift toward digital payments has also raised behavioural and psychological concerns. Studies suggest that digital transactions may weaken individuals' perception of spending due to the absence of tangible money.

In addition, early exposure to digital payments at a young age, as observed in America, also influences financial behaviour. Age differences further indicate varying levels of reliance on digital payments as evidenced in study by Lahiri, (2026) which stated that older individuals are categorised as non-digital-heavy and vice versa. Ultimately, the study emphasises that the convenience of digital transactions can increase impulsive spending.

Impulsive behaviour is an important influence on consumer behaviour such as digital payments because impulsive purchases are purchases made without planning and evaluating the consequences (Farhana, 2025). Farhana (2025) and Muliani et al., (2026) has proven that Generation Z and Millennials who are financially literate and disciplined tend to make more rational purchasing decisions, thus reducing the possibility of spontaneous purchasing behaviour that is usually associated with impulsive purchases. Shahputra et al., (2026) added that the increased reliance on digital payment platforms, for example, will impact consumers' financial discipline.

In brief, digital payments are not only changing the way transactions are made but also influencing the way people manage their personal finances. Therefore, understanding how consumers, especially Gen Z, manage their finances through digital platforms is important, as previous studies have shown that this group is the most vulnerable to digital payments. Although the use of transactions through digital platforms offers multi-functional convenience, it can also lead to impulsive purchasing behaviour (Groda & Kusbianto, 2026).

Digital Financial Literacy

Digital financial literacy refers to an individual's ability to understand, evaluate, and effectively use digital financial services (Khurana & Sharma, 2026; Maina et al., 2026; Pratiwi et al., 2026). It combines traditional digital financial literacy with digital skills necessary to navigate modern financial technologies. Individuals with higher levels of digital financial literacy are better equipped to manage financial risks, avoid online fraud, and make informed financial decisions. In contrast, individuals with limited digital financial literacy may face difficulties in identifying financial risks associated with digital platforms (Aoun et al., 2026; Groda & Kusbianto, 2026; Taqbira & Susilo, 2026).

Although digital platforms provide various conveniences for users, especially young people, these platforms can also pose major challenges to financial behaviours (Ho et al., 2026). Therefore, understanding the role of digital financial literacy in shaping their financial behaviour is a necessity for the next generation to navigate complex financial environments. Studies such as Aoun et al., (2026) have shown that digital financial literacy significantly impacts millennials' financial behaviour, but this study did not focus on Gen Z.

The expansion of digital financial services has also led to an increase in cyber-related financial crimes such as phishing, identity theft, and online scams. Fraudsters often exploit users' lack of awareness regarding digital security practices. Young consumers, particularly university students, are among the most active users of digital financial services. However, their high level of digital engagement may also increase their exposure to online financial risks (Groda & Kusbianto, 2026; Maina et al., 2026; Pratiwi et al., 2026; Taqbira & Susilo, 2026). Strengthening digital financial literacy is therefore essential to mitigate the risks associated with digital financial transactions.

Young adults are increasingly vulnerable to financial fraud due to their frequent engagement with digital platforms and social media environments since online scams, phishing attacks, and fraudulent investment schemes have become common threats in the digital economy. Improving digital financial literacy is therefore essential in reducing financial vulnerability. Furthermore, educational institutions play a critical role in enhancing digital financial literacy among young consumers. Studies by several researchers such as Aoun et al., (2026), Maina et al., (2026), Pratiwi et al., (2026) and Taqbira & Susilo, (2026) show that integrating financial education can improve individuals' financial decision-making and reduce vulnerability to financial risks.

Theoretical Foundation: Integrating TAM and Hifz al-Mal

This study integrates the Technology Acceptance Model (TAM) to examine financial behaviour in a digital context (Davis, 1989). TAM explains technology usage based on two core perceptions, namely perceived usefulness and perceived ease of use. This shows the formation of attitude toward technology and intention to use. Consistent with prior research, TAM explains how technology features increase acceptance through functional assessment. Perceived usefulness refers to the user's belief that the technology benefits them, such as users believing that digital payments can make payment transactions easier. In contrast, perceived ease of use assesses the extent to which the technology is easy to use without much effort, such as user-friendly mobile banking applications (Yen et al., 2025; Emini et al., 2026). The use of TAM suggests that digital payments are not just a tool, but a catalyst for financial behavioural change. TAM also indicates that digital financial literacy acts as an enabler of technology adoption. Accordingly, this study addresses these gaps by integrating TAM into a behavioural framework and empirically examining the relationship between independent factors and financial behaviour.

In the context of this study, the most relevant principle is *Hifz al-Mal* which refers to the preservation and protection of property from damage, waste, fraud, and irresponsible financial management. *Hifz al-Mal* is one of the fundamental matters in *maqasid al-Shariah* which refers to the main objectives of the Shariah in order to safeguard human welfare through the preservation of five fundamental matters. In the perspective of Islamic finance, property is not just a material asset, but a trust from Allah SWT that must be managed ethically, prudently, and in compliance with the Shariah (Samsuddin & Nordin, 2026). Islam emphasises that individuals need to avoid waste, excessive spending and transactions that contain elements of *riba, gharar* and *maysir*. *Surah Al-A'raf* verse 31 emphasises that humans should not be excessive in the use of property, thus showing the importance of disciplines financial behaviour.

In the era of the digital economy, the use of digital payment and financial technology has changed the way individuals manage their finances. Although digital payments increase transaction efficiency, they also expose consumers to financial risks such as digital fraud, impulsive purchases and loss control over spending. Therefore, the concept of *Hifz al-Mal* becomes very significant in ensuring that the use of financial technology does not affect the financial well-being of individuals. Digital financial literacy can be seen as an important mechanism in realising *Hifz al-Mal*. Individuals with good financial knowledge are able to make rational financial decisions, understand digital risks and protect their assets from loss.

In this context, financial literacy is not only related to economic knowledge, but also part of the Shariah responsibility in safeguarding property trusts (Napitupulu et al., 2026).

Hypotheses Development and Conceptual Framework

The conceptual relationships based on TAM and *Hifz al-Mal* principles are outlined as follows.

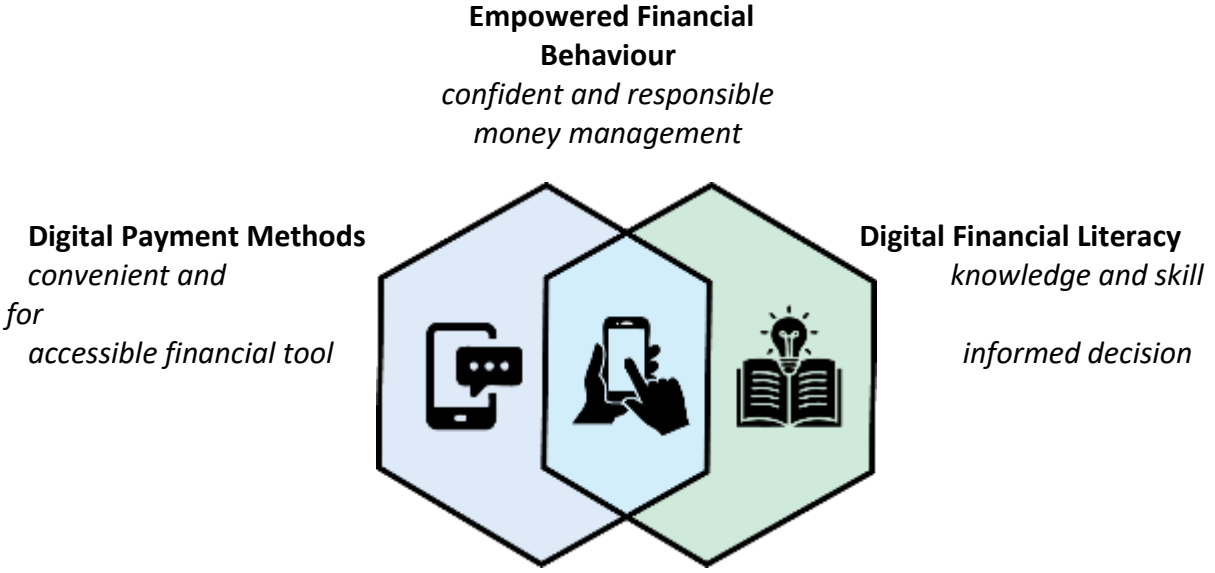


Figure 1. Conceptual Framework
Source: Developed by the authors (2026)

The digital payment and digital financial literacy factors can be examined through two aspects, namely perceived usefulness and perceived ease of use. For instance, for the digital payment factor, efficient use of mobile banking can increase user belief that the facility is easy to use in line with the TAM that technology that is easy and useful will be more accepted. In addition, the integration of the TAM and *Hifz al-Mal* forms a more comprehensive framework in explaining how the use of digital payments and financial literacy influence responsible financial behaviour.
Therefore, the first hypothesis is:

H1: The use of digital payment platform has a positive influence on individual financial behaviour.

This statement estimates that the use of digital payments helps in terms of transaction efficiency and subsequently improves financial behaviour.

For the digital financial literacy factor, individuals with high digital financial literacy will better understand the functions of financial technology and be more confident in using applications. So, the second hypothesis is;

H2: Digital financial literacy has a positive influence on responsible financial behaviour.

This statement estimates that individuals with high levels of digital financial literacy are smarter in managing money and making rational financial decisions, thus forming better financial behaviour.

H3: Digital financial literacy has a negative influence on financial risks in the use of digital payments.

This statement estimates that the higher the literacy, the lower the risk of fraud, overspending, or financial mismanagement.

Methodology

Research Design

This study adopts a quantitative cross-sectional survey approach to examine the relationship between digital payment usage, digital financial literacy, financial risk, and financial behaviour. This design is appropriate for empirically testing cause-and-effect relationships through advanced statistical analysis. The approach is also consistent with previous research in the fields of information systems and behavioural finance that applies technology acceptance models to understand consumer behaviour in the digital economy.

Population and Sampling

The study population consists of young adults from Generation Z (13-28 years old) who use digital payment platforms such as e-wallets and mobile banking in Malaysia. This group was selected because they are directly exposed to the digital financial environment (Farhana, 2025). Thus, a non-probability sampling method (purposive sampling) was employed. Respondents were selected based on the following criteria: i) having used digital payments at least once in the past three months and ii) aged 18-28 years old. The minimum sample size was determined based on PLS-SEM guidelines, including: i) a minimum of 10 times the number of indicators in the largest construct and ii) a target of 150–300 respondents to enhance the reliability of the analysis.

Data Collection Procedure and Data Analysis

Data were collected over a period of two to four weeks using a structured questionnaire distributed via: i) an online platform (Google Form) and ii) social media (WhatsApp, Telegram, and email). Prior to the main data collection, a pilot test (n = 30) was conducted to ensure item comprehensibility and the results show that Cronbach's Alpha value > 0.70 was considered satisfactory. Then, data analysis was conducted using the PLS-SEM approach through the SmartPLS version 4.

Construct Table and Questionnaire Items

The following is a table of constructs and questionnaire items based on previous studies;

Table 1
Construct Table and Questionnaire Items

Digital Payment (DP)	
Code	**Item**
DP1	I often use digital payments such as e-wallet or mobile banking.
DP2	Digital payments make my daily life easier.
DP3	I prefer to use digital payments over cash.
DP4	Digital payments save my time.
Digital Financial Literacy (FL)	
Code	**Item**

FL1	I understand the basic concept of financial management.
FL2	I know how to plan a monthly budget.
FL3	I understand the risks in digital financial transactions.
FL4	I have knowledge about savings and investments.
Financial Risk (FR)	
Code	**Item**
FR1	I am concerned about the security of digital payments.
FR2	I am at risk of fraud in digital transactions.
FR3	I easily overspend using digital payments.
FR4	I am not confident in the security of digital payment platform.
Financial Behaviour (FB)	
Code	**Item**
FB1	I manage my expenses well.
FB2	I do financial planning regularly.
FB3	I save part of my income.
FB4	I control my spending even though I use digital payments.

Results

The analysis is based on a final cleaned sample of 210 respondents consists of young adults from Generation Z. The results in Table 2 show that 210 respondents among Gen Z are 45% male and 55% female. Of these, the majority of respondents are active users of digital payments.

Table 2
Respondent Profile

Profile	Category	Percentage (%)
Gender	Male	45
	Female	55
Age	18-28	100
Use of Digital Payments	Daily	60
	Weekly	30
	Seldom	10

Measurement Model Assessment

The measurement model was evaluated to assess the reliability and validity of study constructs, as established in PLS-SEM guidelines. Internal consistency was examined using Cronbach's alpha and composite reliability (CR) with corresponding values reported in Table 3. Across the four constructs, Cronbach's alpha values ranged between 0.85 and 0.89, while composite reliability values ranged from 0.89 to 0.92. These results suggest a consistent level of reliability across the measurement scales.

Table 3
Reliability Analysis

Construct	Cronbach's Alpha	Composite Reliability (CR)
Digital Payment (DP)	0.88	0.91
Digital financial literacy (FL)	0.87	0.90
Financial Risk (FR)	0.85	0.89
Financial Behaviour (FB)	0.89	0.92

Convergent validity was assessed through average variance extracted (AVE) as reported in Table 4. All constructs met the commonly applied criterion of 0.50, with AVE values of 0.71 for DP, 0.69 for FL, 0.67 for FR and 0.73 for FB, indicating adequate convergence among the indicators.

Table 4
Convergent Validity

Construct	AVE	Status
DP	0.71	Valid
FL	0.69	Valid
FR	0.67	Valid
FB	0.73	Valid

Discriminant validity in Table 5 was evaluated using the heterotrait-monotrait (HTMT) criterion, following standard PLS-SEM assessment procedures. The HTMT values ranged from 0.58 to 0.70, which are below the recommended threshold of 0.90, indicating that discriminant validity has been established. This suggests that all constructs in the model are empirically distinct and measure different conceptual domains.

Table 5
Discriminant Validity (HTMT)

Construct	DP	FL	FR	FB
DP	-			
FL	0.65	-		
FR	0.58	0.62	-	
FB	0.70	0.68	0.60	-

Structural Model Assessment

Structural model assessment evaluates the hypothesised relationships among the constructs by examining path coefficients, significance levels, explanatory power (R^2), effect sizes (f^2) and predictive relevance (Q^2). This assessment determines the robustness and predictive capability of the proposed research model.

Results in Table 6 showed that all tested relationships were statistically significant, with t-values exceeding 1.96 and p-values < 0.001. This indicates strong empirical support for all proposed hypotheses. Firstly, the use of digital payments has a positive and significant influence on financial behaviour. The path coefficient value (β=0.32) shows a moderate effect, indicating that an increase in the use of digital payments will increase the tendency of individuals to adopt more managed financial behaviour. This finding supports the principle in the TAM which states that the use of accepted technology will influence consumer behaviour. In this context, digital payments act as a facilitator that increases the efficiency of financial management.

Secondly, digital financial literacy has a strong and significant positive influence on financial behaviour with the highest β value in the model (0.41). Digital financial literacy emerges as the most dominant factor in shaping responsible financial behaviour. This suggests that individuals with higher levels of digital financial knowledge are more likely to make rational financial decisions, including in terms of planning, saving and spending control.

Thirdly, the results show that digital financial literacy has a significant negative influence on financial risk. The β value = -0.45 shows a relatively strong effect, indicating that an increase in financial literacy will reduce the level of financial risk faced by individuals. This finding reflects the role of financial literacy as a protective mechanism that helps individuals identify, assess, and manage risks in the use of financial technology.

Fourth, the results show that financial risk has a negative and significant influence on financial behaviour. The value of β = -0.28 indicates that increased risk perception will reduce the tendency of individuals to exhibit good financial behaviour. This indicates that risk acts as a barrier that can affect an individual's ability to manage finances effectively, especially in a complex digital environment.

Table 6
Path Coefficient (Bootstrapping)

Hypotheses	Correlation	β	t-value	p-value	Result
H1	DP-FB	0.32	4.85	0.000	Supported
H2	FL-FB	0.41	6.20	0.000	Supported
H3	FL-FR	-0.45	7.10	0.000	Supported
H4	FR-FB	-0.28	3.95	0.000	Supported

The R^2 (coefficient of determination) value reported in Table 7 is used to assess the level of ability of a model to explain the variance of the dependent variable. In general, a higher R^2 value indicates a better explanatory power of the model. The R^2 value of 0.62 indicates that 62% of the variance in financial behaviour can be explained by the variables in the model such as DP, FL and FR. According to the guidelines in PLS-SEM, this value is classified as substantial (high). This indicates that the developed model has strong explanatory power in predicting financial behaviour in the context of the digital economy. It also reinforces the suitability of the extended TAM where the combination of technological (digital payment), cognitive (digital financial literacy) and risk factors successfully explains a large part of the variation in financial behaviour.

Meanwhile, the financial risk construct indicates that only 20% of the variance in financial risk can be explained by financial literacy. This value is categorised as moderate, suggesting that although digital financial literacy is a significant predictor, there are other factors that also influence financial risk but are not included in this model.

Table 7
Coefficient of Determination (R^2)

Construct	R^2	Interpretation
FB	0.62	Substantial
FR	0.20	Moderate

The effect size (f^2) value as reported in Table 8 is used to assess the relative contribution of each variables in a structural model. It indicates the extent to which a construct contributes to the increase in the R^2 value when included in the model. Firstly, the relationship between DP and FB shows a small effect. Although this relationship is significant, its contribution to the variance in financial behaviour is limited. This suggests that the use of digital payments

alone is not sufficient to explain large changes in financial behaviour. Rather, it serves as a supporting factor that complements other variables in the model. Secondly, FL has a moderate effect on FB, indicating that it is one of the key factors in the model. This value indicates that digital financial literacy makes a significant contribution to improving the model's ability to explain financial behaviour. This finding reinforces the role of digital financial literacy as a key driver in shaping responsible financial behaviour. Third, the relationship between FL and FR also shows a moderate effect, with a relatively high f^2 value (0.30). This indicates that digital financial literacy plays an important role in reducing financial risk. This contribution is significant in improving the model's ability to explain variance in the financial risk construct. Fourth, FR has a moderate effect on FB. This suggests that although risk acts as a deterrent factor, it still has a meaningful contribution in shaping individual financial behaviour. This value also supports the role of risk as mediator variable in the model.

Table 8
Effect Size (f^2)

Correlation	f^2	Effect
DP-FB	0.12	Small
FL-FB	0.25	Moderate
FL-FR	0.30	Moderate
FR-FB	0.15	Moderate

The Q^2 value in Table 9 is used to assess the predictive capability of a structural model. This value is obtained through a blindfolding procedure and indicates the extent to which the model is able to predict observational data for an endogenous construct. The Q^2 value of 0.41 indicates that the model has a large predictive relevance for FB. This means that the model is not only able to explain the variance (as indicated by R^2), but also has a strong ability to predict financial behaviour in real-world contexts. This value confirms that the combination of variables such as DP, FL and FR provides significant predictive information for the construct. Meanwhile, the Q^2 value of 0.18 indicates medium predictive relevance for FR. This indicates that the model has sufficient ability to predict FR, but the level of predictive accuracy is lower than for FB. This is consistent with the moderate R^2 value for this construct, suggesting that there are other variables not included in the model that could improve predictive relevance.

Table 9
Predictive Relevance (Q^2)

Construct	Q^2
FB	0.41
FR	0.18

Overall, the findings of the study show that the developed model is strong in terms of validity and reliability, and has high explanatory and predictive capabilities based on PLS-SEM analysis. The discriminant validity (HTMT) assessment confirmed that all constructs are empirically distinct, with the values below the threshold of 0.90. Structural model analysis shows that all relationships are significant, where digital financial literacy emerges as the most dominant predictor of financial behaviour (β = 0.41), followed by the use of digital payments (β = 0.32), while digital financial literacy also significantly reduces financial risk (β = -0.45), and financial risk has a negative impact on financial behaviour (β = -0.28). In terms of explanatory

power, the model shows a value of $R^2 = 0.62$ for financial behaviour (substantial) and $R^2 = 0.20$ for financial risk (moderate), indicating a good ability of the model in explaining the variance of the main constructs. The effect size (f^2) analysis also showed that digital financial literacy had a moderate effect on both financial behaviour ($f^2 = 0.25$) and financial risk ($f^2 = 0.30$), while digital payments has a small effect ($f^2 = 0.12$) and financial risk had a moderate effect ($f^2 = 0.15$). Finally, the predictive relevance (Q^2) value confirmed that the model had significant predictive ability, especially for financial behaviour ($Q^2 = 0.41$) and to a moderate degree for financial risk ($Q^2 = 0.18$). Overall, these findings confirmed that the model was valid, significant, and able to explain and predict financial behaviour in the context of the digital economy well.

Discussions

Overall, the results suggest that while digital payment technologies offer significant benefits in terms of convenience and accessibility, they may also influence financial behaviour in ways that could potentially lead to less disciplined spending habits. At the same time, digital financial literacy appears to play a crucial role in promoting responsible financial behaviour and mitigating the potential negative effects associated with digital financial technologies. The findings provide important insights into how the rapid adoption of digital financial technologies affects individuals' financial decision-making, particularly among young consumers who frequently engage with digital payment platforms.

Digital Payment Usage and Financial Behaviour

One of the key findings of this study is the significant relationship between digital payment usage and financial behaviour. The results indicate that increased usage of digital payment platforms such as e-wallets, mobile banking, and online purchasing systems is associated with changes in individuals' financial behaviour. Specifically, individuals who frequently use digital payment platform tend to exhibit different spending patterns compared to those who rely more heavily on traditional cash transactions.

This finding is in line with the Technology Acceptance Model (TAM) framework which emphasises that technology acceptance through perceived usefulness and convenience will drive actual usage and subsequently influence user behaviour. In this context, digital payments are not just a transaction tool, but act as an enabler that increases financial management efficiency (Farhana, 2025). This is also achieving the goal of *Hifz al-Mal*, which is to achieve fair, safe and Shariah-compliant financial management (Samsuddin & Nordin, 2026). This finding is also consistent with the behavioural economics perspective, particularly the concept of the "pain of paying." Previous research suggests that the physical act of handing over cash creates a psychological barrier that encourages consumers to think more carefully about their spending decisions. In contrast, digital payments reduce the tangible experience of spending money, making financial transactions feel less immediate and less emotionally significant (Shalini et al., 2026). As a result, individuals may be more likely to engage in spontaneous or impulsive purchases when using digital payment platforms.

The results of this study support this argument by demonstrating that higher levels of digital payment usage are associated with changes in financial behaviour. While digital payment technologies offer convenience and efficiency, they may also reduce individuals' awareness of their spending habits. The ability to complete transactions quickly and effortlessly through

mobile applications may encourage individuals to make purchases without fully considering their financial consequences (Muliani et al., 2026). This phenomenon highlights an important behavioural shift in the digital economy. As financial transactions become increasingly digitised, consumers may become less conscious of their financial outflows. Consequently, individuals who rely heavily on digital payment platform may face greater challenges in maintaining financial discipline unless they possess strong financial management skills.

However, it is important to note that digital payment usage does not necessarily lead to negative financial behaviour in all cases. For many individuals, digital financial tools can also provide benefits such as better transaction tracking, improved financial record-keeping, and easier access to financial services (Sharif & Mohamed, 2026). Therefore, the impact of digital payment technologies on financial behaviour largely depends on how individuals manage and utilise these tools.

The Role of Digital Financial Literacy in Shaping Financial Behaviour

Another key finding of this study highlights the important role of digital financial literacy in shaping financial behaviour. The results suggest that individuals with higher levels of digital financial literacy tend to exhibit more responsible financial practices, such as effective budgeting, better control over spending, and more careful decision-making. The results support previous studies that have established that financial literacy is fundamental to an individual's financial well-being. In the context of the digital economy, financial literacy is no longer limited to basic knowledge such as savings and budgeting, but also encompasses an understanding of digital risks, cybersecurity, and the use of financial technology (Ho et al., 2026). Digital financial literacy provides individuals with the knowledge and skills needed to manage their financial resources effectively. Those who have a clear understanding of basic financial concepts such as budgeting, saving, risk management, and financial planning are generally better equipped to make informed decisions. This, in turn, allows them to regulate their spending and maintain financial stability, even in settings where digital payment platforms are widely used.

Theoretically, financial literacy can be considered an external factor that reinforces the constructs in the TAM. Financially literate individuals are better able to evaluate the usefulness of technology and reduce uncertainty in its use. This increases confidence and subsequently positively influences financial behaviour (Emini et al., 2026). From the perspective of *Hifz al-Mal*, this study shows that financial knowledge serves as a primary instrument in protecting individual wealth from waste, risk and irrational financial decisions. This means that individuals with a high level of financial literacy are more likely to plan their spending, control their debt and save consistently (Fajri & Atmaja, 2026). This behaviour is in line with Islamic principles that emphasise prudent and responsible wealth management. In Islam, waste is considered a prohibited practice, and good financial management is a manifestation of trust in the blessings of wealth.

Moreover, in the context of the digital economy, the importance of digital financial literacy becomes even more evident. Individuals today are exposed to a wide range of financial products and services, from online shopping platforms to digital credit and investment tools. While these platforms offer convenience, they also require users to assess potential risks.

Without sufficient financial understanding, individuals may find it difficult to make sound judgments in such environments (Yen et al., 2025).

The findings further suggest that digital financial literacy acts as a protective factor, helping individuals navigate the complexities of the digital financial landscape. Those with stronger financial knowledge are more likely to recognise the risks associated with impulsive spending and an overreliance on digital payment methods. Moreover, digital financial literacy enables individuals to make more effective use of digital financial tools. Rather than promoting excessive spending, these technologies can support better financial management when users have the necessary knowledge and awareness.

Digital Financial Literacy as a Risk Reduction Mechanism

One of the main findings of this study is the significant negative relationship between digital financial literacy and financial risk. This indicates that individuals with high levels of digital financial literacy tend to experience lower risks in the use of digital payments. This finding is very important in the context of increasing cases of digital fraud and cybersecurity threats. Digital financial literacy acts as a protective mechanism that allows individuals to identify risks, assess the probability of loss, and take appropriate preventive measures.

This is particularly relevant in the context of the digital economy, where a growing share of financial transactions is conducted through online platforms. The expansion of digital financial services has, however, been accompanied by a rise in cyber-related financial crimes, including phishing scams, fraudulent investment schemes, and identity theft (Maina et al., 2026; Parti et al., 2026). Young consumers are often considered to be among the most active users of digital financial platforms. While they may possess strong digital skills, they may not necessarily have the financial knowledge required to identify and avoid financial fraud. As a result, individuals who lack financial awareness may be more vulnerable to online scams.

From a theoretical perspective, these findings extend the application of the TAM by including the element of risk as an important factor in determining the outcome of technology use. Although the original TAM emphasised usability and convenience, this study shows that risk reduction is also an important outcome that influences user behaviour. Furthermore, digital financial literacy helps individuals recognise warning signs associated with fraudulent financial activities. For example, individuals with higher levels of financial literacy may be more cautious when receiving unsolicited investment offers, suspicious messages requesting personal financial information, or unrealistic promises of financial returns.

In addition, digital financial literacy encourages individuals to adopt safer digital financial practices such as verifying financial transactions, protecting personal financial information, and using secure payment platforms. This is very much in line with the principle of *la darar wa la dirar* which emphasises the prevention of harm in *muamalat*. The elimination of financial risks such as scams, fraud, overspending and financial mismanagement shows that individuals are successfully protecting their assets from harm. The findings of this study suggest that improving digital financial literacy is an important strategy for reducing financial vulnerability in the digital economy. Educational initiatives aimed at improving digital financial literacy can play a crucial role in protecting consumers from financial fraud.

Research Contribution: Extended TAM and Hifz al-Mal for Financial Behaviour

The proposed framework extends the TAM and *Hifz al-Mal* by integrating digital financial literacy and financial risk into the prediction of financial behaviour. The model highlights a technology-driven pathway through digital payment usage and cognitive-risk where digital financial literacy directly enhances financial behaviour and indirectly influences it by reducing financial risk.

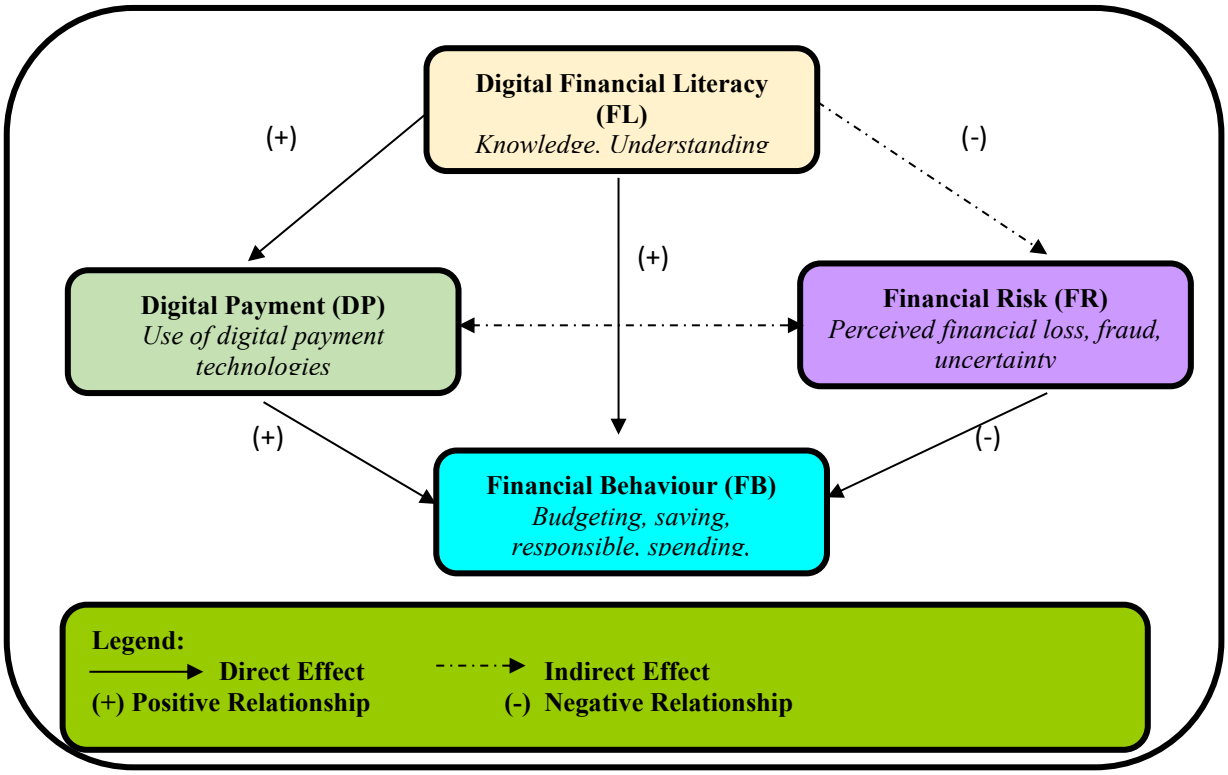


Figure 2. Proposed conceptual framework
Source: Developed by authors for this study (2026)

The above framework shows that it is an extension of the TAM and *Hifz al-Mal* that integrates the elements of technology (digital payment), cognitive (digital financial literacy), risk (financial risk) and financial behaviour. The aim is to explain how the use of financial technology and the level of financial knowledge influence individual financial behaviour in a digital economic environment. Financial literacy acts as a core variable which can directly affects financial behaviour and indirectly affects financial risk. This means that individuals with high digital financial literacy will better understand the benefits of technology; be more cautious about risks; and more rational in making financial decisions.

Digital payment represents the technology component in TAM. It has a direct impact on financial behaviour and this is in line with the TAM. In this context, digital payment facilitates transactions because it can increase financial efficiency and help monitor spending. However, its effect can be re-examined because its effect in this study is moderate and not dominant. Meanwhile, financial risk acts as a mediator which financial risk receives the effect of digital financial literacy and affects financial behaviour. This shows that risks exist in digital payments including fraud, data leakage and over-spending.

The principle of *Hifz al-Mal* serves as the basis of Islamic theory that explains the ultimate goal of using financial technology and financial literacy, which is to produce responsible financial behaviour and ensure the preservation of property in accordance with Shariah. *Hifz al-Mal* refers to the protection, management and preservation of property from any form of damage, waste, fraud and financial instability. In Islam, property is not just a material asset, but a trust from Allah SWT that must be managed responsibly, prudently and free from prohibited elements such as *riba, gharar*, fraud and waste. *Hifz al-Mal* becomes very relevant because it emphasises the need to ensure that the use of such technology does not lead to financial harm. The relevance of *Hifz al-Mal* in the context of this study shows that financial technology is not the ultimate goal, but only as a tool to achieve the goal of financial well-being, asset protection and a more balanced and ethical economic life. Therefore, the integration between the TAM and *Hifz al-Mal* provides a more comprehensive framework for understanding financial behaviour.

Overall, this framework shows that financial behaviour is not only influenced by technology because digital financial literacy can be the most critical factor in which at the same time, risk acts as a major barrier and the relationship between all constructs is complex and interrelated.

Recommendation and Conclusion

In summary, the results of this study indicate that digital payment usage and digital financial literacy are important factors influencing financial behaviour in the digital economy. While digital payment technologies may increase the convenience of financial transactions, they may also encourage impulsive spending behaviour if individuals lack adequate financial knowledge. The transition toward a cashless society has significantly transformed financial behaviour in the digital economy. While digital payment platforms offer numerous benefits, they also introduce behavioural and financial risks.

This study also demonstrates that digital financial literacy plays a critical role in ensuring responsible financial behaviour among digital payment users. Individuals with strong financial knowledge are better equipped to manage their finances and avoid potential risks associated with digital financial services. Future research may expand this study by examining different demographic groups or conducting cross-country comparisons to better understand financial behaviour in the global digital economy.

The findings of this study suggest that moving toward a cashless society does not automatically result in poorer financial behaviour. Instead, the way individuals engage with digital financial technologies is largely shaped by their level of digital financial literacy and awareness. Individuals with a stronger grasp of financial concepts are generally more capable of adjusting to the digital financial environment and using digital payment tools in a more controlled and responsible way. On the other hand, those with limited financial knowledge may face greater difficulty in managing their finances effectively in a digital setting. In this regard, the main challenge for contemporary societies is not merely the adoption of digital financial technologies, but ensuring that individuals are sufficiently prepared with the knowledge and skills needed to use these tools wisely.

Finally, this study adds to the existing literature on digital financial behaviour in several meaningful ways. First, it offers empirical insights into how the use of digital payment platform is associated with individuals' financial behaviour within the broader digital economy. Second, it draws attention to the importance of digital financial literacy and financial awareness in encouraging more responsible financial practices. Third, the study brings together perspectives from behavioural economics and digital finance to better understand how psychological factors shape financial decision-making in digital settings. By exploring the relationships between digital payment usage, digital financial literacy, and financial behaviour, this study provides a more nuanced view of how individuals respond and adapt to the changing digital financial landscape.

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