International Journal of Accounting and Finance in Asia Pacific (IJAFAP)
Vol. 9 No. 1, pp.75-89, February, 2026
E-ISSN: 2655-6502 P-ISSN: 2684-9763
https://www.ejournal.aibpmjournals.com/index.php/IJAFAP

From Savings to Consumption: How Financial Literacy Influences College Students' Use of Electronic Wallets and Budgeting Behaviors

Kok Ban Teoh[1], Boon Keong Teow[3], Dwi Nita Aryani[4], Zhihan Liu[2*], Yushuo Liu[2], Yifei Long[2], Jiahui Long[2], Rizkyvania Betarishanti Budiani[4], Daisy Mui Hung Kee[2]

[1]National Higher Education Research Institute, Universiti Sains Malaysia, 11900 Bayan Lepas, Penang, Malaysia
[2]Universiti Sains Malaysia, Jalan Sg Dua, 11800 Minden, Pulau Pinang, Malaysia
[3]ViTrox College, 14110 Batu Kawan, Pulau Pinang, Malaysia
[4]STIE Malangkucecwara, Jln. Terusan Candi Kalasan, Malang, Indonesia
*Corresponding Email: liuzhihan@student.usm.my

ARTICLE INFORMATION

Publication information

Research article

HOW TO CITE
Teoh, K. B., Teow, B. K., Aryani, D. N., Liu, Z., Liu, Y., Long, Y., …, & Kee, D. M. H. (2026). From savings to consumption: How financial literacy influences college students' use of electronic wallets and budgeting behaviors. *International Journal of Accounting & Finance in Asia Pacific, 9*(1), 75-89.

DOI:
https://doi.org/10.32535/ijafap.v9i1.4389

Received: 14 December 2025
Accepted: 16 January 2026
Published: 20 February 2026

ABSTRACT

As mobile payments become increasingly prevalent in Asia, university students widely use electronic wallets for daily transactions, raising concerns about their financial management behavior. This study examines the effect of financial literacy on spending behavior, saving habits, and budgeting and e-wallet usage among university students. Data were collected from 150 respondents through an online survey. The findings indicate that financial literacy is negatively and significantly associated with spending behavior ($r = -0.170$, $p < 0.05$) and positively associated with saving habits ($r = 0.192$, $p < 0.05$). However, the relationship between financial literacy and budgeting and e-wallet usage is positive but not statistically significant ($r = 0.116$, $p > 0.05$). Regression results show that financial literacy significantly reduces spending behavior ($\beta = -0.159$, $p = 0.050$), while its influence on budgeting behavior and e-wallet feature utilization is not significant. The model explains 6.7 percent of the variance ($R^2 = 0.067$). These findings suggest that financial literacy plays a protective role in controlling spending, but additional factors influence digital financial behavior.

Keywords: Asia; Budgeting Behavior; E-Wallet Usage; Financial Literacy; Mobile Payments; Spending Habits; University Students

INTRODUCTION

The rapid development of digital financial technology has fundamentally transformed financial transaction patterns across Asia. Mobile payment systems and electronic wallets (e-wallets), such as WeChat Pay, Alipay, and Apple Pay, have increasingly replaced traditional cash-based transactions and become the dominant mode of payment among young consumers (Korella & Li, 2018). University students, as digital natives, represent one of the most active user groups of financial technology (fintech) services. Growing up in a technology-driven environment, they tend to integrate digital payment applications into their daily consumption activities. Although these systems offer efficiency, accessibility, and convenience, they also introduce new financial behavioral risks, particularly for students who are still forming their financial values and decision-making patterns (Koskelainen et al., 2023). Limited financial experience and insufficient exposure to structured financial education may increase their vulnerability to impulsive consumption and poor budgeting practices. Prior research indicates that young consumers often prioritize immediate gratification over long-term financial planning, thereby weakening saving discipline and increasing financial risk exposure (Xiao et al., 2009).

Financial literacy has been widely recognized as a critical determinant of responsible financial behavior (Lusardi & Mitchell, 2014; Ingale & Paluri, 2022). The Organisation for Economic Co-operation and Development defines financial literacy as the knowledge and understanding of financial concepts and risks, as well as the skills and confidence to apply such knowledge in decision-making (OECD, 2024). Empirical studies demonstrate that individuals with higher financial literacy are more capable of budgeting, controlling expenditures, and avoiding excessive borrowing (Xiao & O'Neill, 2016). Conversely, insufficient financial literacy is associated with budget deficits, overconsumption, and increased reliance on debt instruments (Kurowski, 2021). Despite the growing body of literature on financial literacy among university students, existing studies primarily focus on knowledge levels, attitudes, or general financial behavior. Limited research has systematically examined the interaction between financial literacy and the behavioral consequences of e-wallet usage, particularly in relation to budgeting discipline and impulsive spending within a digital payment environment (Yuttama, 2025). As fintech adoption accelerates, understanding whether financial literacy can moderate the behavioral effects of cashless transactions becomes increasingly important. However, empirical evidence remains limited regarding whether financial literacy functions as a behavioral control mechanism within digital payment environments, particularly among Malaysian university students.

This study is conducted to address this gap by examining how financial literacy influences university students' use of e-wallets and their budgeting behavior in the context of digital payments. The central question guiding this research is whether students who frequently use e-wallets demonstrate adequate financial self-control and whether financial literacy functions as a rational guiding mechanism under mobile payment systems. The research is motivated by concerns that the seamless and frictionless nature of digital payments may psychologically reduce the perceived cost of spending, thereby increasing impulsive purchases and weakening budget monitoring practices (Raghubir & Srivastava, 2008). By investigating expenditure tracking, savings behavior, planning habits, and the utilization of budgeting features within e-wallet applications, this study seeks to provide a more integrated understanding of digital financial behavior among university students.

This research is significant for several reasons. From a theoretical perspective, it extends the literature on financial literacy by incorporating digital payment usage as a contextual variable influencing budgeting behavior. It contributes to behavioral finance discussions by exploring how knowledge-based financial competence interacts with technology-enabled consumption systems (Kumar, 2024; Xiao & Porto, 2017). From a practical perspective, the findings offer implications for fintech companies in designing user-friendly budgeting tools within e-wallet applications and for universities in strengthening financial education curricula to improve students' financial resilience. Policymakers may also utilize the findings to design targeted financial literacy programs that align with the realities of a cashless economy (OECD, 2024).

The novelty of this study lies in its integrative approach that links financial literacy, e-wallet usage behavior, and budgeting discipline within a unified analytical framework. Unlike prior studies that examine these constructs separately, this research systematically analyzes their interrelationships in the context of digital financial transformation. The objective of this study is to assess students' financial literacy in relation to digital payment tools, examine the relationship between financial literacy and budgeting patterns under e-wallet usage, and analyze how financial literacy influences students' ability to avoid impulsive spending. By explicitly addressing these relationships, this study contributes to the development of a more comprehensive understanding of responsible financial behavior in the digital era and aligns with the scope of finance-oriented research emphasized by the International Journal of Accounting and Finance in Asia Pacific.

LITERATURE REVIEW

Financial Literacy and Youth Financial Behavior

Financial literacy refers to the ability to understand and apply financial knowledge in daily decision making, including saving, budgeting, and responsible spending (Lusardi & Mitchell, 2014). Among university students, financial literacy is particularly important because many begin managing their personal finances independently for the first time during this stage of life. However, numerous studies indicate that students generally demonstrate relatively low levels of financial literacy, which may result in unfavorable financial behaviors such as overspending and neglecting budgeting practices (OECD, 2024). Students who possess stronger financial knowledge tend to engage in structured financial planning, avoid unnecessary expenditures, and maintain higher levels of financial discipline (Xiao, Tang, & Shim, 2009). These findings suggest that financial literacy plays a foundational role in shaping responsible money management behavior among young adults.

E wallet Usage and Student Spending Habits

The growing adoption of electronic wallets and mobile payment systems has significantly transformed the spending behavior of university students. These digital payment tools offer speed, convenience, and promotional incentives, which make them particularly attractive to young consumers. Hassan et al. (2021) report that Malaysian university students frequently use electronic wallets for everyday purchases, especially food and transportation. Nevertheless, researchers have raised concerns that digital transactions may reduce users' awareness of spending because they do not involve physical cash (Bhuiyan et al., 2025). The seamless payment process may lower psychological barriers to spending and encourage impulsive consumption, particularly for non essential items. Students with limited financial experience may therefore be more vulnerable to these behavioral shifts within a cashless financial environment.

Financial Literacy and Budgeting in a Digital Context

Several studies support the argument that financial literacy positively influences students' ability to budget and manage expenses effectively. Amagir et al. (2018) argue that students who receive financial education are more likely to monitor their spending and engage in financial planning activities. In the context of digital finance, financial literacy may also affect how students utilize budgeting features embedded within electronic wallet applications. Despite the availability of such tools, evidence suggests that these features are often underutilized, particularly among students who lack awareness or confidence in managing digital financial platforms (OECD, 2024). This gap between technological availability and actual behavioral usage highlights the importance of examining whether financial literacy can strengthen students' budget control in a digital payment setting.

Summary and Research Gap

Overall, previous studies have made important contributions to understanding financial literacy, electronic wallet usage, and budgeting behavior among young people. Research consistently demonstrates that students with higher financial literacy are better able to plan their budgets and make prudent financial decisions (Lusardi & Mitchell, 2014; Xiao et al., 2017). Studies focusing on digital payments emphasize both benefits and risks, noting that the convenience of mobile wallets may encourage spontaneous purchases and reduce spending awareness (Putrevu & Mertzanis, 2024). However, significant gaps remain in the literature. Many studies examine financial literacy and electronic wallet usage as separate domains, with limited attention to their interaction. In particular, whether financial literacy can guide students to manage spending more responsibly when using digital wallets remains insufficiently explored. Furthermore, much of the existing research focuses on Western contexts, where financial systems and mobile payment infrastructures differ substantially from those in Asia. Cultural, economic, and technological differences suggest that findings from one region may not be directly applicable to another.

In Asia, mobile payment platforms are expanding rapidly while structured financial education continues to develop. Empirical evidence regarding how university students balance digital payment convenience with financial control remains limited. The absence of region specific analysis creates important opportunities for further investigation. Therefore, this study examines how financial literacy influences the way Asian university students use electronic wallets and manage their daily finances within a digital financial environment.

Hypotheses Development

Based on the conceptual framework and prior literature, this study proposes several hypotheses linking financial literacy to key behavioral outcomes associated with electronic wallet usage. As electronic wallets become increasingly prevalent, students may shift from saving oriented habits toward more consumption driven behavior. While these platforms provide convenience, they may also reduce spending awareness, particularly among individuals with limited financial knowledge. Previous studies demonstrate that financial literacy plays a significant role in shaping budgeting discipline and spending control (Lusardi & Mitchell, 2014; Xiao et al., 2017). Students with stronger financial knowledge are more likely to prepare budgets, control impulsive purchases, and utilize digital financial tools effectively, whereas lower financial literacy has been associated with poor money management and impulsive spending (Torre et al., 2025).

Accordingly, the hypotheses of this study are formulated as follows.

H1: Financial literacy has a positive effect on budgeting behavior among university students.

H2: Financial literacy has a negative effect on impulsive spending behavior in the use of electronic wallets.

H3: Lower financial literacy increases the tendency of university students to use electronic wallets for non essential spending.
H4: Financial literacy positively influences the likelihood of utilizing budgeting features within electronic wallet applications.

These hypotheses aim to empirically test the role of financial literacy in guiding responsible financial behavior within a digital payment context and to clarify its function as a moderating or guiding factor in students' electronic wallet usage patterns.

Conceptual Framework
The study framework model is depicted in Figure 1.

Figure 1. Research Framework

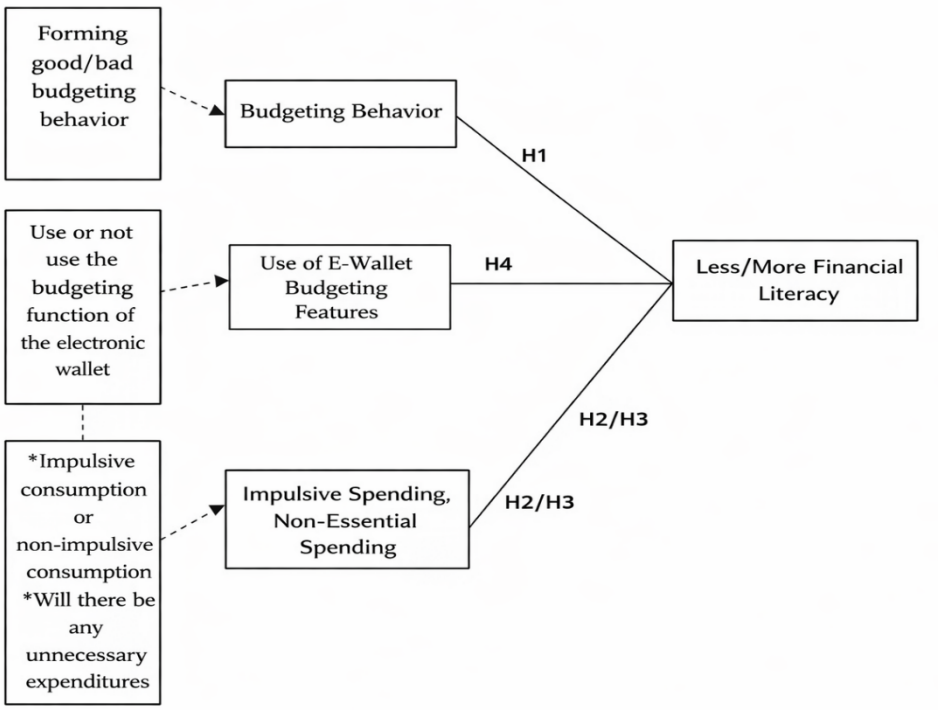

Figure 1 illustrates the proposed research framework in which financial literacy is positioned as the independent variable influencing spending behavior, saving habits, and budgeting and e-wallet usage.

RESEARCH METHOD

Sampling
This study adopts a quantitative research design to examine the relationship between financial literacy and digital financial behavior among university students. The target population consists of undergraduate students in Asia who have experience using electronic wallets. This population is selected because university students represent one of the most active user segments of digital payment systems and are in a critical phase of developing personal financial management capabilities. The unit of analysis in this research is the individual student.

The study applies a stratified random sampling approach to ensure representation across different demographic characteristics, including gender, year of study, field of study, and monthly allowance levels. Stratified random sampling allows respondents to be selected from specific subgroups within the same population to improve representativeness (Davis, 2015). Due to accessibility considerations within an online survey context, elements of convenience sampling are also present, which is common in behavioral and educational research (Etikan et al., 2016). The minimum target sample size for statistical analysis is 150 valid responses to ensure sufficient statistical power for regression and correlation testing.

Data Collection

Data were collected using a structured online questionnaire distributed through social media platforms, student associations, and university networks to obtain a diverse sample across different Asian countries and academic backgrounds. The questionnaire was administered using Google Forms over a two week period. Participation was voluntary and anonymous, and respondents were able to complete the survey using mobile devices or desktop computers at their convenience.

Prior to the main data collection, a pilot test was conducted with approximately 20 university students to assess clarity, wording, and logical flow. Based on feedback from the pilot test, minor revisions were made to improve question clarity and eliminate ambiguities. This procedure was conducted to enhance content validity and ensure that respondents clearly understood the measurement items.

Measures

The questionnaire consists of five sections comprising 18 core questions designed to measure demographic characteristics, financial literacy, spending behavior, saving behavior, and budgeting behavior. Both multiple choice questions and five point Likert scale items were used to capture attitudes and behavioral tendencies, following established measurement practices (Likert, 1932).

The first section collects demographic information, including gender, year of study, field of study, and monthly allowance. These variables are treated as control variables in the statistical analysis. The second section measures financial literacy through objective questions assessing respondents' understanding of interest rates, budgeting concepts, and installment payments. The third section examines spending habits, including the frequency of electronic wallet usage, impulsive purchasing tendencies, and daily expense recording behavior. Impulsive spending serves as one of the key dependent variables in this study.

The fourth section assesses saving habits, including monthly saving behavior and responses to financial fluctuations, as well as the allocation of additional income. The fifth section focuses on budgeting behavior and electronic wallet usage, particularly awareness and utilization of budgeting features embedded within electronic wallet applications, intention to use such features, and sources of financial knowledge. All variables are directly linked to the proposed research hypotheses and are structured to enable quantitative statistical analysis.

Internal consistency was assessed using both Cronbach's alpha and composite reliability. The Cronbach's alpha coefficients ranged from 0.236 to 0.377, indicating relatively low internal consistency across constructs. However, each construct was measured using a limited number of items, which may contribute to lower alpha values, as Cronbach's alpha is sensitive to the number of scale items (Hair et al., 2017). Composite reliability values ranged from 0.62 to 0.74, indicating acceptable internal

consistency for exploratory behavioral research. Compared to Cronbach's alpha, composite reliability provides a more robust reliability estimate in behavioral research contexts. Given the exploratory nature of this study and the integration of financial literacy with digital financial behavior constructs, the reliability results suggest preliminary measurement stability. The relatively lower alpha values may also reflect the multidimensional nature of financial behavior in digital contexts, where spending, saving, and budgeting practices do not always align linearly. Future research is encouraged to refine and expand measurement items to strengthen construct reliability.

RESULTS

Table 1. Respondents' Profile Summary (N=150)

Response	Frequency	Percentage (%)
Gender		
Male	76	50.7
Female	73	48.7
Others	1	0.7
Academic Year		
First Year	20	13.3
Second Year	65	44.3
Third Year	48	32.0
Fourth Year	17	11.3
Field of Study		
Humanities	10	6.7
Science	46	30.7
Engineering	19	12.7
Business/Economics/Management	65	43.3
Others	10	6.7
Monthly Allowance		
Less than 2000 RM	60	40.0
2000–3000 RM	53	35.3
3000–4000 RM	21	14.0
4000–5000 RM	4	2.7
5000 RM or above	12	8.0

Table 1 presents the demographic profile of the respondents (N = 150). The gender distribution is relatively balanced, comprising 50.7 percent male, 48.7 percent female, and 0.7 percent identifying as other.

In terms of academic year, the majority of respondents are second year students (44.3 percent), followed by third year students (32.0 percent), first year students (13.3 percent), and fourth year students (11.3 percent).

Regarding field of study, most respondents are enrolled in Business, Economics, or Management programs (43.3 percent), followed by Science (30.7 percent) and Engineering (12.7 percent). Students from Humanities and other disciplines each account for 6.7 percent of the sample.

With respect to financial background, 40.0 percent of respondents report receiving less than RM2000 per month, while 35.3 percent receive between RM2000 and RM3000. A smaller proportion report higher monthly allowances, including 14.0 percent between RM3000 and RM4000, 2.7 percent between RM4000 and RM5000, and 8.0 percent RM5000 or above. Overall, the sample is characterized by a predominance of second

year students from business related disciplines with relatively moderate financial resources.

Table 2. Descriptive Statistics, Cronbach's Alpha, and Zero-Order Correlations (N = 150)

Variables	1	2	3	4
1. Spending Behavior	0.332			
2. Saving Habits	-0.108	0.236		
3. Budgeting and E-Wallet Usage	0.065	0.227**	-0.377	
4. Financial Literacy	-0.170*	0.192*	0.116	0.317
Number of Items	3	3	4	4
Mean (M)	2.1272	2.2500	2.4885	2.2122
Standard Deviation (SD)	0.56111	0.62361	0.39064	0.46550

Note: N = 150; *p < .05, **p < .01, ***p < .001

Table 2 presents the descriptive statistics, reliability coefficients, and zero order correlations among the study variables.

The Cronbach's alpha values range from 0.236 to 0.377, indicating relatively low internal consistency across the constructs. However, each construct is measured using only three to four items, and Cronbach's alpha is known to be sensitive to the number of items included in a scale (Hair et al., 2017). Considering the exploratory nature of this study and the integration of digital financial behavior constructs, the reliability results suggest preliminary measurement stability rather than critical measurement weakness.

The mean scores reflect moderate levels of spending behavior (M = 2.13), saving habits (M = 2.25), budgeting and e wallet usage (M = 2.49), and financial literacy (M = 2.21). These values indicate that, on average, respondents demonstrate moderate engagement in digital financial behaviors and financial knowledge.

Regarding correlations, financial literacy is negatively and significantly associated with spending behavior ($r = -0.170$, $p < 0.05$), suggesting that students with higher financial literacy tend to engage less in impulsive spending. Financial literacy is also positively and significantly correlated with saving habits ($r = 0.192$, $p < 0.05$), indicating that more financially knowledgeable students are more likely to adopt saving behaviors. In contrast, the relationship between financial literacy and budgeting and e wallet usage is positive but not statistically significant ($r = 0.116$, $p > 0.05$), implying that financial knowledge does not necessarily translate into active utilization of digital budgeting features.

Furthermore, saving habits are positively associated with budgeting and e wallet usage ($r = 0.227$, $p < 0.01$), indicating that students who save more frequently are also more inclined to practice budgeting and use digital financial tools in a structured manner.

Table 3. Summary of Multiple Regression Analysis

Variables	Spending Behavior	Saving Habits	Budgeting & E-Wallet Usage
Financial Literacy	–0.159*	0.155	0.091
R^2	0.067	0.067	0.067
F Value	3.555	3.555	3.555
Durbin–Watson	1.787	1.787	1.787

Note: *p < .05.

Multiple regression analysis was conducted to examine the effect of financial literacy on digital financial behaviors, namely spending behavior, saving habits, and budgeting and e wallet usage.

The results indicate that financial literacy has a significant negative effect on spending behavior (β = -0.159, p = 0.050). This suggests that students with higher levels of financial literacy tend to engage less in impulsive or excessive spending. Thus, financial literacy plays a protective role in reducing uncontrolled digital consumption.

Financial literacy shows a positive but non significant effect on saving habits (β = 0.155, p = 0.062). Although the direction of the relationship aligns with theoretical expectations that financially literate students are more inclined to save, the effect does not reach statistical significance at the 5 percent level.

Similarly, financial literacy demonstrates a positive but non significant effect on budgeting and e wallet usage (β = 0.091, p = 0.268). This finding indicates that higher financial literacy does not necessarily translate into active utilization of digital budgeting features within electronic wallet applications.

The overall model explains a modest proportion of variance (R^2 = 0.067), indicating that financial literacy accounts for approximately 6.7 percent of the variation in digital financial behaviors. The F value of 3.555 suggests marginal overall model significance, while the Durbin Watson statistic of 1.787 indicates no serious autocorrelation issues.

These findings suggest that although financial literacy influences certain financial behaviors, particularly spending control, its overall explanatory power remains limited. This implies that other psychological or contextual factors may contribute to students' digital financial decision making.

Table 4. Summary of Pearson Correlation Analysis among Key Variables

Variables	1	2	3	4
1. Spending Behavior	1.000	-0.108	0.065	-0.170*
2. Saving Habits	-0.108	1.000	0.227**	0.192*
3. Budgeting & E-Wallet Usage	0.065	0.227**	1.000	0.116
4. Financial Literacy	-0.170*	0.192*	0.116	1.000

Note: *p < .05, **p < .01. Values represent Pearson correlation coefficients (2-tailed).

The results of the Pearson correlation analyses among the four variables are presented in Table 4. A weak but significant negative relationship was found between spending behavior and financial literacy (r = –0.170, p < 0.05), indicating that individuals who spend more tend to have lower levels of financial literacy. Saving habits were positively and significantly correlated with financial literacy (r = 0.192, p < 0.05), suggesting that individuals who save more frequently are generally more financially knowledgeable.

Budgeting and e-wallet usage showed a modest positive relationship with financial literacy (r = 0.116, p > 0.05); however, this relationship was not statistically significant. A moderate and significant relationship was observed between saving habits and budgeting and e-wallet usage (r = 0.227, p < 0.01), indicating that individuals who engage in saving behaviors are also more likely to practice budgeting and use e-wallets.

DISCUSSION

Restatement of Purpose and Contribution

This study aimed to examine the effect of financial literacy on budgeting behavior, impulsive spending, non-essential e-wallet usage, and the utilization of budgeting features among university students. By integrating financial literacy and digital payment behavior within a single analytical framework, this study contributes to the growing

literature on youth financial behavior in digital financial environments, particularly within the Malaysian context (Sabri et al., 2023). The findings provide insight into how financial knowledge relates to students' financial management practices when using electronic wallets.

The Influence of Financial Literacy on Budgeting Behavior
H1 proposed that financial literacy has a positive effect on budgeting behavior among university students. The correlation results partially support this hypothesis, as financial literacy was positively associated with budgeting and e-wallet usage, although the relationship was not statistically significant.

This suggests that students with higher financial literacy tend to demonstrate a greater inclination toward structured financial planning; however, financial knowledge alone may not be sufficient to significantly predict active budgeting practices within digital platforms. While the direction of the relationship aligns with Lusardi and Mitchell (2014) and Xiao and O'Neill (2016), the absence of statistical significance in regression analysis indicates that other factors may mediate or moderate the translation of knowledge into practical budgeting behavior.

The Influence of Financial Literacy on Impulsive Spending
H2 proposed that financial literacy has a negative effect on impulsive spending behavior in the use of electronic wallets. The findings support this hypothesis. Financial literacy was negatively and significantly correlated with spending behavior, and regression results further indicate that financial literacy has a significant negative effect on spending behavior.

This suggests that students with higher levels of financial literacy are less likely to engage in impulsive or excessive spending (Gunawan et al., 2022). Financial knowledge appears to function as a protective factor by enhancing awareness of financial consequences and encouraging more rational consumption decisions in digital payment environments (Seldal & Nyhus, 2022). These results are consistent with prior literature emphasizing the role of financial literacy in strengthening self-control and long-term financial planning.

The Influence of Lower Financial Literacy on Non-Essential E-Wallet Usage
H3 proposed that lower financial literacy increases the tendency of university students to use electronic wallets for non-essential spending. The significant negative relationship between financial literacy and spending behavior provides indirect support for this hypothesis.

Students with lower financial literacy tend to exhibit higher spending behavior, which may include non-essential purchases facilitated by the convenience and frictionless nature of electronic wallets. This finding aligns with the "cashless effect" described by Raghubir and Srivastava (2008), which suggests that digital payments reduce the perceived pain of payment. Students with limited financial knowledge may therefore be more vulnerable to increased non-essential consumption in digital environments.

The Influence of Financial Literacy on the Utilization of Budgeting Features
H4 proposed that financial literacy positively influences the likelihood of utilizing budgeting features within electronic wallet applications. The correlation results show a positive but non-significant relationship between financial literacy and budgeting and e-wallet usage. Furthermore, regression analysis indicates that budgeting and e-wallet usage do not significantly predict financial literacy.

These findings suggest that while financially literate students may have a general tendency toward better financial management, financial literacy does not automatically translate into active use of digital budgeting tools. The utilization of such features may depend on additional factors, such as user awareness, perceived usefulness, interface design, or habitual patterns. This partially contrasts with Torre et al. (2025), who found stronger effects in the Indonesian context, indicating possible contextual differences in digital financial behavior across countries.

Managerial Implications

The findings indicate that improving financial literacy alone may not be sufficient to ensure responsible digital financial behavior. Educational institutions should incorporate applied financial management modules that provide practical training in using digital budgeting tools, including real-time expense monitoring and spending analysis (Ogedengbe et al., 2024).

FinTech providers are encouraged to enhance digital platform features by integrating clearer financial feedback mechanisms, such as customizable budget alerts and visual spending indicators, to bridge the gap between financial knowledge and digital financial behavior. Policymakers may also consider strengthening financial literacy initiatives that are specifically tailored to digital payment ecosystems.

Enhanced Theoretical Contribution

This study contributes theoretically by highlighting the asymmetry between financial knowledge and digital financial behavior. While classical financial literacy theory assumes that knowledge directly leads to responsible financial actions (Lusardi & Mitchell, 2014), the findings suggest that in digital environments, this relationship is more complex.

The modest explanatory power of the regression model and the non-significant effect of budgeting and e-wallet usage indicate that digital payment environments may introduce behavioral and psychological dynamics that weaken the direct knowledge-behavior link. Therefore, financial literacy in digital contexts should be conceptualized not only as cognitive understanding but also as digitally contextualized financial capability that integrates behavioral and technological dimensions.

CONCLUSION

This study examined the effect of financial literacy on budgeting behavior, impulsive spending, non-essential e-wallet usage, and the utilization of budgeting features among university students in a digital financial environment. The findings clearly indicate that financial literacy plays a significant role in reducing spending behavior. Students with higher levels of financial literacy demonstrate lower tendencies toward impulsive and excessive digital spending, suggesting that financial knowledge functions as a protective factor in managing consumption behavior within cashless payment systems.

However, the results also reveal that financial literacy does not significantly predict budgeting behavior and the utilization of e-wallet budgeting features when analyzed simultaneously with other variables. Although the relationships are positive in direction, the overall explanatory power of the model remains modest. This indicates that financial knowledge alone is not sufficient to fully explain digital financial behavior. Other psychological, technological, and contextual factors likely influence how students apply financial knowledge in practical digital settings.

Overall, this study confirms that financial literacy is important in shaping responsible financial behavior, particularly in controlling spending. Nevertheless, the transition from financial knowledge to structured digital financial management appears to be complex. Therefore, strengthening financial literacy should be accompanied by practical digital financial training and supportive technological features to ensure that knowledge is effectively translated into responsible financial actions in digital payment environments.

LIMITATION

This study is limited by its focus on students from a single Malaysian university and the use of cross-sectional self-reported data, which restrict generalizability and causal interpretation. Additionally, the relatively low explanatory power of the regression model suggests that other psychological or contextual variables may better explain variations in financial literacy and digital financial behavior.

Future research should employ longitudinal or experimental designs to examine causal relationships between financial literacy and digital financial behavior. Cross-national comparisons may also provide deeper insight into cultural differences in digital financial practices and financial literacy development.

ACKNOWLEDGMENT

The authors gratefully acknowledge the contributions of informants, colleagues, and all individuals who supported this research through their insights and engagement. Their involvement greatly enriched the quality and depth of this study.

DECLARATION OF CONFLICTING INTERESTS

The authors have declared no potential conflicts of interest concerning the study, authorship, and/or publication of this article.

REFERENCES

Amagir, A., Groot, W., Maassen van den Brink, H., & Wilschut, A. (2018). A review of financial literacy education programs for children and adolescents. *Citizenship, Social and Economics Education, 17*(1), 56–80. https://doi.org/10.1177/2047173417719555

Bhuiyan, M. R. I., Akter, M. S., & Islam, S. (2025). How does digital payment transform society as a cashless society? An empirical study in the developing economy. *Journal of Science and Technology Policy Management*, *16*(4), 756-774. https://doi.org/10.1108/JSTPM-10-2023-0170

Davis, J. M. (2015). Sampling and what it means. *The Cambridge guide to research in language teaching and learning*, 198-205.

Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics, 5*(1), 1–4. https://doi.org/10.11648/j.ajtas.20160501.11

Gunawan, A., Sadri, M., Pulungan, D. R., & Koto, M. (2022). Study of phenomenon on consumption behavior of Medan city students During pandemic: Financial literacy on e-commerce. *Webology*, *19*(1), 2853-2872. https://doi.org/10.14704/WEB/V19I1/WEB19190

Hassan, M. A., Shukur, Z., & Hasan, M. K. (2021). Electronic wallet payment system in Malaysia. In *Data Analytics and Management: Proceedings of ICDAM* (pp. 711-736). Singapore: Springer Singapore. https://doi.org/10.1007/978-981-15-8335-3_55

Ingale, K. K., & Paluri, R. A. (2022). Financial literacy and financial behaviour: A bibliometric analysis. *Review of Behavioral Finance*, *14*(1), 130-154. https://doi.org/10.1108/RBF-06-2020-0141

Korella, J. L., & Li, W. (2018). Retail payment behaviour and the adoption of innovative payments: A comparative study in China and Germany. *Journal of Payments Strategy & Systems*, *12*(3), 245-265. https://doi.org/10.69554/YZWE7925

Koskelainen, T., Kalmi, P., Scornavacca, E., & Vartiainen, T. (2023). Financial literacy in the digital age—A research agenda. *Journal of Consumer Affairs*, *57*(1), 507-528. https://doi.org/10.1111/joca.12510

Kumar, A. (2024, April 27). *Knowledge transfer in the digital age: Investigating the mechanisms and challenges*. SSRN. https://doi.org/10.2139/ssrn.4809874

Kurowski, Ł. (2021). Household's overindebtedness during the COVID-19 crisis: The role of debt and financial literacy. *Risks*, *9*(4), 62. https://doi.org/10.3390/risks9040062

Likert, R. (1932). A technique for the measurement of attitudes. *Archives of Psychology, 140*, 1–55.

Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature, 52*(1), 5–44. https://doi.org/10.1257/jel.52.1.5

Ogedengbe, A. O., Jejeniwa, T. O., Friday, S. C., & Olatunji, H. (2024). Framework for digitally transforming financial management systems in SME and public sector organizations. *International Journal of Multidisciplinary Research and Growth Evaluation*, *5*(5), 1122-1142. https://doi.org/10.54660/.IJMRGE.2024.5.5.1122-1142

Organisation for Economic Co-operation and Development. (2024). *OECD/INFE survey instrument to measure digital financial literacy* (OECD Working Papers on Finance, Insurance and Private Pensions, No. 57). OECD Publishing. https://www.oecd.org/en/publications/oecd-infe-survey-instrument-to-measure-digital-financial-literacy_548de821-en.html

Putrevu, J., & Mertzanis, C. (2024). The adoption of digital payments in emerging economies: challenges and policy responses. *Digital Policy, Regulation and Governance*, *26*(5), 476-500. https://doi.org/10.1108/DPRG-06-2023-0077

Raghubir, P., & Srivastava, J. (2008). Monopoly money: The effect of payment coupling and form on spending behavior. *Journal of Experimental Psychology: Applied, 14*(3), 213–225. https://doi.org/10.1037/1076-898X.14.3.213

Sabri, M. F., Anthony, M., Law, S. H., Rahim, H. A., Burhan, N. A. S., & Ithnin, M. (2023). Impact of financial behaviour on financial well-being: evidence among young adults in Malaysia. *Journal of Financial Services Marketing*, 1. https://doi.org/10.1057/s41264-023-00234-8

Seldal, M. N., & Nyhus, E. K. (2022). Financial vulnerability, financial literacy, and the use of digital payment technologies. *Journal of Consumer Policy*, *45*(2), 281-306. https://doi.org/10.1007/s10603-022-09512-9

Taylor, J. (2024). *Basics of statistical research for business decisions*. Global Academic Press.

Torre, J. M. Y. D., Jangao, J. P. P., Maghilum, J. T., Man-onan, R. J. H., Pepito, S. G., Jr., Rapirap, G. P., Jr., & Cervantes, J. Z. (2025). The impact of personal budgeting skills on college students' financial stability. *Research Journal in Business and Economics, 3*(3), 199–205. https://doi.org/10.61424/rjbe.v3i3.574

Xiao, J. J., & O'Neill, B. (2016). Consumer financial education and financial capability. *International Journal of Consumer Studies, 40*(6), 712–721. https://doi.org/10.1111/ijcs.12285

Xiao, J. J., & Porto, N. (2017). Financial education and financial satisfaction: Financial literacy, behavior, and capability as mediators. *International Journal of Bank Marketing, 35*(5), 805–817. https://doi.org/10.1108/IJBM-01-2016-0009

Xiao, J. J., Tang, C., & Shim, S. (2009). Acting for happiness: Financial behavior and life satisfaction of college students. *Social Indicators Research, 92*(1), 53–68. https://doi.org/10.1007/s11205-008-9288-6

Yuttama, F. R. (2025). Behavioral shifts in digital finance: How e-payment influences consumer spending and financial literacy. *Journal of Management and Entrepreneurship Research*, *6*(4), 358-371. https://doi.org/10.34001/jmer.2025.12.06.4-80

ABOUT THE AUTHOR(S)

1st Author
Ts. Dr. Teoh Kok Ban is a Senior Lecturer at the National Higher Education Research Institute (IPPTN), Universiti Sains Malaysia. His work centers on higher education, human development, and organizational wellbeing, integrating research, counseling, and professional training to generate meaningful impact in education and society. He holds a PhD in Organizational Behavior and Development, along with Master's degrees in Statistics and Counseling, enabling him to combine quantitative expertise with human-centered approaches. A Professional Technologist (Ts.) registered with the Malaysian Board of Technologists and a Registered Counselor with the Malaysian Board of Counselors, he bridges technical and psychological perspectives in his work. As an HRD Corp Accredited Trainer, he leads capacity-building initiatives and academic collaborations, while actively contributing to research and professional service.

2nd Author
Boon Keong Teow is affiliated with ViTrox College, 14110 Batu Kawan, Pulau Pinang, Malaysia, under the Department of Business Studies. He earned his Master's degree in Business Administration and currently holds a position as Senior Lecturer at ViTrox College. His research focuses on financial technology adoption and behavioral finance.

3rd Author
Dwi Nita Aryani is affiliated with STIE Malangkuçeçwara, Jalan Terusan Candi Kalasan, Malang, Indonesia, under the Faculty of Economics and Business. She holds a Master's degree in Management and is currently serving as a Lecturer at STIE Malangkuçeçwara. Her research interests include financial management, digital payment systems, and financial behavior among youth.

4th Author
Zhihan Liu is affiliated with Universiti Sains Malaysia, Malaysia. He holds a Bachelor's degree in Finance and is currently a Research Assistant at the Faculty of Business and Management. His academic interests include digital finance and consumer decision-making.

5th Author
Yushuo Liu is affiliated with Universiti Sains Malaysia, Malaysia. She earned her Bachelor's degree in Economics and is currently a postgraduate student specializing in financial literacy and fintech adoption.

6th Author
Yifei Long is affiliated with Universiti Sains Malaysia, Malaysia. He obtained his Bachelor's degree in Business Administration and is currently pursuing postgraduate

studies in Finance. His research interests include e-wallet usage behavior and digital budgeting tools.

7th Author
Jiahui Long is affiliated with Universiti Sains Malaysia, Malaysia. She completed her undergraduate studies in Accounting and is currently involved in research activities focusing on digital financial behavior among university students.

8th Author
Rizkyvania Betarishanti Budiani is affiliated with STIE Malangkuçeçwara, Malang, Indonesia. She holds a Master's degree in Accounting and currently serves as a Lecturer in the Faculty of Economics and Business. Her research interests include financial literacy, accounting education, and digital financial systems.

9th Author
Daisy Mui Hung Kee is affiliated with Universiti Sains Malaysia, Malaysia, under the School of Management. She earned her Doctoral degree in Business Management and currently serves as a Senior Lecturer. Her research areas include strategic management, financial behavior, and international business.