

From Cash to Cashless: The Effect of Digital Payment Adoption on Students' Spending Behaviour in Malaysia and India

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ABSTRACT

The rapid adoption of digital payment systems has transformed financial transactions in Malaysia and India, raising concerns about their potential influence on students' spending behaviour. This study examines the influence of digital payment adoption, security perception, social influence, and consumer habits on spending behaviour. A quantitative approach was employed using an online questionnaire involving 158 respondents from Malaysia and India. Data were analysed using descriptive statistics, Pearson correlation, and multiple regression analysis through SPSS. The results revealed that consumer habits were the only significant positive predictor of spending behaviour ($\beta = 0.703$, $p < .001$). Conversely, digital payment adoption ($\beta = -0.076$, $p = .267$), security perception ($\beta = 0.122$, $p = .056$), and social influence ($\beta = 0.024$, $p = .711$) showed no statistically significant independent effects. These findings highlight the importance of habitual payment practices in shaping spending behaviour. The study contributes to understanding digital financial behaviour and emphasises the need for financial literacy, responsible spending, and effective financial management among university students.

Keywords: Cashless Payment; Convenience; Digital Payment Adoption; Security Perception; Social Influence; Spending Behaviour; University Students

INTRODUCTION

Traditionally, money has served as the primary means of payment for goods and services. However, technological advancements have significantly transformed the way financial transactions are conducted. In recent years, individuals have increasingly shifted towards a cashless economy, using smartphones, mobile banking applications, e-wallets, QR codes, and other digital payment methods for everyday transactions, including grocery shopping, transportation, and other purchasing activities. This transformation is particularly evident in Malaysia and India, where rapid technological development has accelerated the adoption of digital payment systems among individuals and businesses (Kee, 2022; Mathur et al., 2026).

The use of digital payment services is particularly prevalent among university students. These students are often referred to as digital natives, as they have grown up in an environment characterised by widespread access to the internet, smartphones, and digital applications (Edeh et al., 2021). Consequently, university students are generally more familiar with digital technologies and are more inclined to adopt cashless payment services. In Malaysia, students frequently use various digital payment platforms, including Touch 'n Go eWallet, GrabPay, online banking, and debit or credit cards. Similarly, students in India commonly use platforms such as the Unified Payments Interface (UPI), Paytm, Google Pay, and PhonePe.

Although digital payment systems offer numerous advantages, their potential influence on students' spending behaviour raises several concerns. One significant concern is that digital payments may encourage overspending by reducing individuals' psychological awareness of financial transactions. In cash-based transactions, individuals physically handle and exchange money, making the amount spent more tangible. In contrast, digital payments conducted through e-wallets, QR codes, or mobile applications require only a few interactions with a smartphone, potentially reducing awareness of expenditure and encouraging impulsive purchasing decisions.

This issue is particularly important because many university students have limited financial resources. Some students depend financially on their parents, while others rely on scholarships, educational loans, or part-time employment to support their daily expenses. Furthermore, university students are frequently exposed to social media marketing campaigns, online promotions, peer influence, cashback incentives, and discounts offered by digital payment service providers. These factors may contribute to increased expenditure, particularly when combined with the convenience and efficiency of digital payment systems. Previous research has also examined how digital payment platforms, such as Touch 'n Go, influence students' financial behaviour during and after the COVID-19 pandemic (Kaim et al., 2024).

Although previous studies have examined digital payment adoption from various perspectives, including convenience, usability, security, and behavioural intention, limited research has specifically investigated its implications for university students' spending behaviour, particularly through a comparison between Malaysia and India. This research gap is significant given the rapid expansion of digital payment systems in both countries. In Malaysia, the adoption of cashless payments has been encouraged through the development of e-wallets and digital banking services. Meanwhile, in India, the Digital India initiative and the widespread implementation of UPI have substantially increased the popularity of digital transactions (Indrawati et al., 2022). Therefore, examining university students in Malaysia and India provides an opportunity to understand how digital payment adoption may influence spending behaviour across these two national contexts.

Furthermore, this study contributes to the broader discussion of student development, financial management, and responsible digital behaviour in higher education. As higher education institutions increasingly emphasise the importance of equipping students with practical knowledge and life skills, bridging the gap between theoretical learning and everyday financial decision-making has become essential (Lim et al., 2024). Existing literature has also demonstrated that individual behaviour and well-being can be influenced by environmental, organisational, and psychosocial factors, including demands, engagement, support systems, and safety climate (Teoh & Kee, 2022; Teoh et al., 2021). In this context, understanding students' spending behaviour through digital payment systems is important because financial management practices can influence their overall well-being and lifestyle decisions.

Accordingly, this study aims to examine the relationship between digital payment adoption and university students' spending behaviour in Malaysia and India. Specifically, it seeks to assess the level of digital payment adoption among university students in both countries and determine its influence on their spending behaviour. Furthermore, the study investigates the influence of digital payment adoption, security perception, social influence, and consumer habits on students' spending behaviour. By addressing these objectives, this research seeks to provide a comprehensive understanding of the factors associated with students' financial decision-making in an increasingly cashless environment. The findings are expected to contribute to the existing literature on digital financial behaviour and offer practical implications for university students, educators, parents, policymakers, and financial technology providers in promoting responsible spending practices and effective financial management.

LITERATURE REVIEW

Digital payment systems have emerged as a significant technological development, transforming the way consumers conduct financial transactions. The transition from cash-based to cashless payments is particularly evident among university students in Malaysia and India, driven by the increasing use of smartphones, greater internet accessibility, the availability of e-wallets and mobile banking applications, and the implementation of QR code payment systems. Digital payment systems enable students to make convenient and efficient payments for food, transportation, online purchases, entertainment, and other daily necessities. Nevertheless, the increasing use of digital payment systems has raised concerns regarding their potential influence on students' spending behaviour, including impulsive purchasing, increased transaction frequency, and reduced awareness of expenditure. This phenomenon may be associated with the reduced psychological discomfort of spending, commonly referred to as the *pain of paying*, as individuals do not physically observe money leaving their possession during digital transactions. Consequently, examining the influence of digital payment adoption on students' spending behaviour in Malaysia and India is essential to understanding financial decision-making in an increasingly cashless environment.

Digital Payment Adoption

Digital payment adoption refers to the extent to which individuals accept and use digital payment platforms, including e-wallets, mobile banking applications, QR code payments, debit and credit cards, and online payment systems, in their daily financial activities. The adoption of digital payment systems has become increasingly widespread among university students due to the accessibility of smartphones and digital applications. Students generally favour digital payments because these systems provide convenience, efficiency, and the ability to conduct transactions without carrying physical cash.

Previous research has demonstrated that digital payment adoption can influence consumers' financial behaviour by changing their purchasing patterns and transaction practices (Malik & Rana, 2025). Students who frequently use digital payment systems may conduct transactions more often because these platforms simplify the purchasing process. Gurusamy and Aiswarya (2024) identified a relationship between digital payment technologies and changes in consumer spending and saving patterns. Similarly, research examining cashless payments among students suggests that digital payment adoption may influence spending behaviour by increasing transaction frequency while potentially reducing awareness of expenditure (Hang et al., 2025).

In Malaysia and India, digital payment adoption is particularly relevant because both countries have experienced rapid growth in cashless payment systems. In Malaysia, e-wallet platforms such as Touch 'n Go eWallet and GrabPay have become increasingly common, while UPI and other mobile payment applications are widely used in India. As university students are active users of these platforms, the extent of digital payment adoption may influence their spending behaviour. Based on these considerations, the following hypothesis is proposed:

H1: Digital payment adoption has a significant influence on students' spending behaviour in Malaysia and India.

Security Perception

Security perception refers to users' beliefs regarding the safety, reliability, and protection provided by digital payment systems against potential risks, including fraud, unauthorised transactions, and the misuse of personal information. In the context of digital payments, perceived security is an important consideration because users must have confidence in payment platforms before adopting them for regular transactions. Among university students, security perception may influence the frequency of digital payment usage and their confidence when conducting online or mobile transactions.

Previous studies have identified perceived security as an important factor influencing digital payment adoption. Ahmad Ramli (2021) found that security-related factors may influence users' intentions to adopt e-wallet services. Similarly, Bakar and Yeum (2024) emphasised the importance of consumer confidence in mobile wallet systems for the continued development of digital payments in Malaysia. In India, despite the widespread adoption of UPI and other mobile payment systems, concerns regarding cyber fraud, privacy, and unauthorised transactions may continue to influence users' trust and payment decisions (Singh et al., 2023).

When students perceive digital payment systems as secure, they may be more willing to use these platforms for everyday purchases. Security measures, including passwords, biometric authentication, one-time passwords, transaction notifications, and fraud protection mechanisms, may strengthen students' confidence in digital payment services. Greater security perception may encourage more frequent digital transactions and potentially influence students' spending behaviour. Therefore, the following hypothesis is proposed:

H2: Security perception has a significant influence on students' spending behaviour in Malaysia and India.

Social Influence

Social influence refers to the extent to which individuals' attitudes and behaviours are shaped by people within their social environment, including friends, classmates, family members, and online communities. In the context of digital payments, social influence

occurs when students adopt or use digital payment systems because these platforms are commonly used or recommended by individuals around them. Social influence may also arise from social media trends, online shopping platforms, advertisements, and peer recommendations.

Previous studies have demonstrated that social influence plays an important role in digital payment adoption. [Yang et al. \(2021\)](#) found that social factors may influence users' intentions to adopt e-wallet services. Similarly, [Effendy et al. \(2021\)](#) reported that social influence affects individuals' intentions to use e-wallets. Among younger consumers, social influence may be particularly relevant because university students frequently interact with their peers and participate in online communities. [Azman et al. \(2021\)](#) also identified social influence as a factor affecting e-wallet adoption among younger users.

Beyond influencing digital payment adoption, social influence may also affect students' spending behaviour. For instance, students may be influenced by friends who regularly use e-wallets, participate in online shopping promotions, or respond to cashback offers and social media trends. When digital payment systems are widely accepted within students' social circles, they may be encouraged to use similar platforms and engage in more frequent purchasing activities. Consequently, social influence may contribute to changes in students' spending patterns and financial decision-making. Based on this discussion, the following hypothesis is proposed:

H3: Social influence has a significant influence on students' spending behaviour in Malaysia and India.

Consumer Habits

Consumer habits refer to recurring patterns of purchasing and payment behaviour that gradually become part of individuals' daily routines. In this study, consumer habits encompass students' preferences for cashless transactions, frequent use of digital payment systems, and reliance on these platforms for everyday purchases. As students repeatedly use digital payment systems, their payment behaviour may become increasingly habitual, potentially reducing the level of conscious consideration involved in individual purchasing decisions.

Previous research has indicated that digital payment systems may influence consumer habits and spending patterns. [Pal et al. \(2021\)](#) explained that although mobile payment systems offer convenience, users may also encounter risks associated with frequent and effortless transactions. [Faraz and Anjum \(2025\)](#) suggested that digital payment systems may influence purchasing behaviour and impulsive buying because transactions can be completed more quickly and without the physical exchange of money. Similarly, research on students' financial behaviour has indicated that digital wallets may contribute to changes in financial practices within an increasingly cashless environment ([Fikri et al., 2025](#)).

Consumer habits are particularly relevant to this study because students who regularly use digital payment systems may develop greater familiarity with cashless transactions and become increasingly dependent on these platforms for daily purchases. Financial incentives, including cashback rewards, discounts, promotional offers, and loyalty points, may further reinforce habitual digital payment usage. Consequently, students may engage in more frequent transactions or make purchasing decisions without consistently monitoring their available budgets. Therefore, the following hypothesis is proposed:

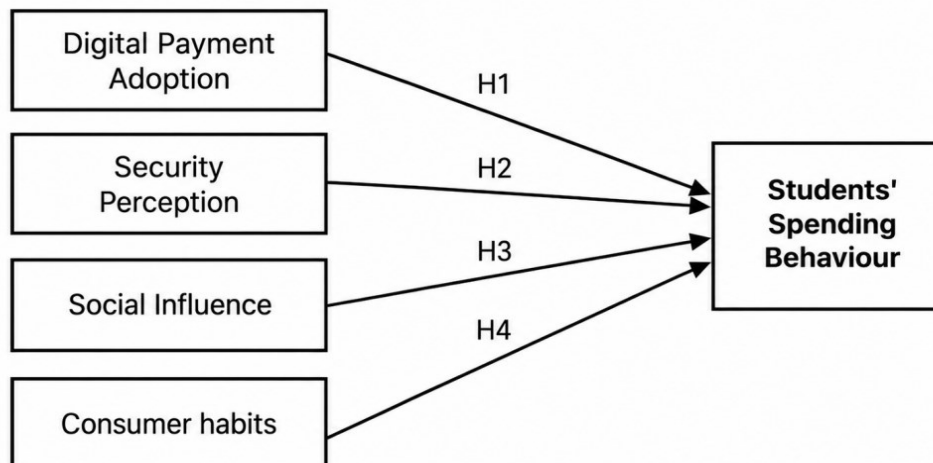
H4: Consumer habits have a significant influence on students' spending behaviour in Malaysia and India.

Conceptual Framework

Based on the literature reviewed, this study proposes a conceptual framework examining the influence of digital payment adoption, security perception, social influence, and consumer habits on university students' spending behaviour in Malaysia and India. Digital payment adoption represents the extent to which students accept and use digital payment systems in their daily financial activities. Security perception reflects students' confidence in the safety and reliability of digital payment platforms, while social influence refers to the role of friends, family members, peers, and online communities in shaping students' digital payment practices. Consumer habits represent recurring patterns of digital payment usage and students' reliance on cashless transactions for everyday purchases.

Within the proposed conceptual framework, digital payment adoption, security perception, social influence, and consumer habits serve as the independent variables, while students' spending behaviour is the dependent variable. The framework suggests that these four factors may influence students' spending behaviour in Malaysia and India. Accordingly, the proposed relationships provide the theoretical foundation for examining the hypotheses and understanding the factors associated with students' financial decision-making in the context of digital payment adoption. The study framework model is depicted in Figure 1.

Figure 1. Research Framework



RESEARCH METHOD

Sample and Procedure

This study examines the influence of digital payment adoption on university students' spending behaviour in Malaysia and India. A quantitative research design was employed to collect numerical data through a structured questionnaire and analyse the relationships between the independent and dependent variables using statistical techniques. This approach was considered appropriate for examining the relationships among the variables investigated in this study.

Digital payment adoption, security perception, social influence, and consumer habits were identified as the independent variables, while students' spending behaviour was

the dependent variable. These variables were selected based on their relevance to understanding how digital payment systems relate to students' financial behaviour and purchasing patterns.

The target respondents were individuals who had experience using digital payment systems, including e-wallets, online banking, QR code payments, debit and credit cards, and mobile payment applications. As the study primarily focused on university students, demographic information, including gender, country, age, occupation, and monthly income, was collected to provide a comprehensive profile of the respondents. A total of 158 respondents from Malaysia and India participated in the study, allowing for an examination of digital payment adoption and spending behaviour across both countries. Data were collected through an online questionnaire administered using Google Forms. This method was selected because of its convenience, cost-effectiveness, and suitability for reaching respondents across different geographical locations.

Following data collection, the responses were analysed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics were employed to summarise respondents' demographic characteristics and the main study variables. Reliability analysis was conducted to assess the internal consistency of the measurement items. Pearson correlation analysis was used to examine the relationships among the variables, followed by multiple regression analysis to determine the influence of digital payment adoption, security perception, social influence, and consumer habits on students' spending behaviour.

Measures

This study employed a structured questionnaire consisting of six sections. Section A collected respondents' demographic information, including gender, country, age, occupation, and other relevant background characteristics. Sections B to F assessed the main study variables, namely digital payment adoption, security perception, social influence, consumer habits, and spending behaviour.

Section B assessed digital payment adoption through multiple-choice questions addressing the types of cashless payment methods used, frequency of usage, average weekly expenditure through cashless transactions, and primary reasons for using digital payment systems. These items were adapted from [Rafee et al. \(2022\)](#) to evaluate respondents' digital payment usage patterns.

Section C measured security perception using three items adapted from [Sapian and Ismail \(2021\)](#). This section assessed respondents' perceptions of safety, trust, and security when using digital payment systems. The measurement items included "I feel safe when using digital payment methods", "I trust digital payment systems", and "I believe digital payment systems are secure".

Section D measured social influence using three items adapted from [Sapian and Ismail \(2021\)](#). This section examined the extent to which individuals within respondents' social environments influenced their use of digital payment systems. The measurement items included "People around me influence my use of digital payment methods", "My friends encourage me to use digital payment methods", and "I use digital payment methods because others around me use them".

Section E measured consumer habits using three items adapted from [Sapian and Ismail \(2021\)](#). This section assessed respondents' preferences for and habitual use of digital payment methods. The measurement items included "I prefer cashless transactions over

cash”, “I frequently use digital payment in daily life”, and “I rely on digital payment for most purchases”.

Section F measured spending behaviour using three items adapted from Jiang (2022). This section assessed respondents’ perceptions of changes in their spending patterns associated with digital payment usage. The measurement items included “My spending has increased since I started using digital payment methods”, “I am more likely to make additional purchases when using digital payment”, and “I sometimes exceed my planned budget when using digital payments”.

The agreement-based measurement items were assessed using a five-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). This scale enabled respondents to indicate their level of agreement with each statement and facilitated the statistical analysis of the collected data. The multiple-choice questions in Section B were used to capture respondents’ digital payment usage characteristics.

Data Analysis

Data obtained from the online questionnaire were analysed using the Statistical Package for the Social Sciences (SPSS). Descriptive statistics were initially employed to summarise respondents’ demographic characteristics, including gender, country, age, and occupation. Means and standard deviations were also calculated to describe the main study variables. Subsequently, reliability analysis was conducted using Cronbach’s alpha to evaluate the internal consistency of the measurement items. Pearson correlation analysis was then performed to examine the relationships among digital payment adoption, security perception, social influence, consumer habits, and spending behaviour. Finally, multiple regression analysis was employed to assess the influence of the independent variables on students’ spending behaviour.

Ethical Considerations

This study adhered to fundamental ethical principles throughout the data collection process. Participation in the online survey was voluntary, and respondents were informed that their responses would be used exclusively for academic research purposes. No personally identifiable information was collected, and respondents’ confidentiality and anonymity were maintained throughout the research process. Participants were also free to complete the questionnaire voluntarily based on their willingness and understanding.

RESULTS

Respondents’ Demographic Profile

Table 1 presents the demographic characteristics of the 158 respondents from Malaysia and India. The results indicate that the majority of respondents were female (70.3%, $n = 111$), followed by male respondents (25.9%, $n = 41$), while 3.8% ($n = 6$) preferred not to disclose their gender. Regarding country of origin, 68.4% ($n = 108$) of respondents were from Malaysia, while 31.6% ($n = 50$) were from India.

In terms of age distribution, most respondents were aged 18–24 years (71.5%, $n = 113$), followed by those aged 25–35 years (22.8%, $n = 36$) and 36–50 years (5.7%, $n = 9$). Regarding occupation, 82.9% ($n = 131$) identified as students, while 13.3% ($n = 21$) were employed and 3.8% ($n = 6$) were unemployed. Overall, the demographic findings indicate that the sample predominantly comprised female respondents, Malaysian participants, young adults aged 18–24 years, and students.

Table 1. Summary of Respondents’ Demographic Information ($N = 158$)

Demographic Variables	Categories	Frequency (f)	Percentage (%)
Gender	Female	111	70.3
	Male	41	25.9
	Prefer not to say	6	3.8
Country of Origin	Malaysia	108	68.4
	India	50	31.6
Age Group	18–24 years	113	71.5
	25–35 years	36	22.8
	36–50 years	9	5.7
Occupation	Student	131	82.9
	Employed/Working	21	13.3
	Unemployed	6	3.8

Descriptive Statistics and Correlation Analysis

Table 2 presents the descriptive statistics for the main study variables. The mean scores ranged from 3.94 to 4.32, with digital payment adoption and social influence recording the highest mean scores ($M = 4.32$). Security perception recorded a mean score of 4.23, followed by consumer habits ($M = 3.98$) and spending behaviour ($M = 3.94$). These findings indicate relatively high levels of agreement with the statements measuring the study variables.

The standard deviations ranged from 0.792 to 0.870. Consumer habits recorded the highest standard deviation ($SD = 0.870$), while social influence recorded the lowest ($SD = 0.792$), indicating differences in response variability across the variables.

Table 2. Descriptive Statistics

Variables	Mean	SD
Digital Payment Adoption	4.32	0.815
Social Influence	4.32	0.792
Security Perception	4.23	0.866
Consumer Habits	3.98	0.870
Spending Behaviour	3.94	0.854

The reported Pearson correlation analysis indicated positive relationships among the study variables. Digital payment adoption was positively correlated with consumer habits ($r = 0.732$, $p < .001$) and spending behaviour ($r = 0.621$, $p < .001$). Social influence was positively associated with consumer habits ($r = 0.515$, $p < .001$) and spending behaviour ($r = 0.485$, $p < .001$). Security perception was also positively correlated with consumer habits ($r = 0.410$, $p < .001$) and spending behaviour ($r = 0.432$, $p < .001$). The strongest reported relationship was between consumer habits and spending behaviour ($r = 0.785$, $p < .001$).

Multiple Regression Analysis

Multiple regression analysis was conducted to examine the influence of digital payment adoption, social influence, security perception, and consumer habits on students' spending behaviour. The results are presented in **Table 3**.

Table 3. Summary of Multiple Regression Analysis

Predictor	B	SE	t	p	β
Constant	0.368	0.270	1.359	.176	—
Digital Payment Adoption	-0.080	0.072	-1.114	.267	-0.076
Social Influence	0.026	0.070	0.371	.711	0.024

Security Perception	0.120	0.062	1.929	.056	0.122
Consumer Habits	0.690	0.063	11.040	< .001	0.703

Note. B = unstandardised regression coefficient; SE = standard error; β = standardised regression coefficient. Statistical significance was assessed at $p < .05$.

The regression results indicate that consumer habits were the only statistically significant predictor of students' spending behaviour ($B = 0.690$, $\beta = 0.703$, $t = 11.040$, $p < .001$). The positive coefficient indicates that higher consumer habits scores were associated with higher spending behaviour scores after controlling for the other predictors.

Digital payment adoption did not significantly predict spending behaviour ($B = -0.080$, $\beta = -0.076$, $p = .267$). Similarly, social influence showed no statistically significant effect ($B = 0.026$, $\beta = 0.024$, $p = .711$). Security perception demonstrated a positive coefficient ($B = 0.120$, $\beta = 0.122$), but its effect was not statistically significant at the 5% level ($p = .056$).

Overall, consumer habits demonstrated the strongest standardised regression coefficient among the four independent variables, while the remaining predictors did not exhibit statistically significant independent effects.

Hypothesis Testing

The hypothesis testing results were determined based on the multiple regression analysis using a significance threshold of $p < .05$. The results are summarised in [Table 4](#).

Table 4. Summary of Hypothesis Testing

Hypothesis	Statement	Result
H1	Digital payment adoption significantly influences students' spending behaviour.	Not Supported
H2	Security perception significantly influences students' spending behaviour.	Not Supported
H3	Social influence significantly influences students' spending behaviour.	Not Supported
H4	Consumer habits significantly influence students' spending behaviour.	Supported

The hypothesis testing results indicate that only H4 was supported. Consumer habits demonstrated a statistically significant positive effect on students' spending behaviour ($\beta = 0.703$, $p < .001$). In contrast, H1, H2, and H3 were not supported because digital payment adoption, security perception, and social influence did not achieve statistical significance at the 5% level.

These results indicate that consumer habits were the only statistically significant independent predictor of students' spending behaviour in the regression model.

DISCUSSION

The findings of this study provide insights into the relationships between digital payment adoption, security perception, social influence, consumer habits, and spending behaviour among respondents in Malaysia and India. The multiple regression results indicate that only one of the four proposed hypotheses was supported. Specifically, consumer habits demonstrated a statistically significant positive influence on spending behaviour, while digital payment adoption, security perception, and social influence did not exhibit statistically significant independent effects. These findings suggest that habitual payment practices may play a more prominent role in explaining spending

behaviour than technological adoption, perceived security, or social factors when these variables are examined simultaneously.

Digital payment adoption was not found to have a statistically significant influence on spending behaviour ($\beta = -0.076$, $p = .267$). Although digital payment platforms, including e-wallets, QR code payments, online banking, debit cards, and mobile payment applications, provide convenience and efficiency, their adoption alone did not significantly predict spending behaviour after controlling for the other variables. This finding suggests that the availability and use of digital payment technologies may not necessarily lead to changes in spending patterns. Instead, the relationship between digital payment usage and expenditure may depend on how individuals incorporate these technologies into their daily purchasing routines. Although digital payment adoption was positively associated with consumer habits in the reported correlation analysis, the present regression results do not establish an indirect effect through consumer habits.

Similarly, security perception did not demonstrate a statistically significant influence on spending behaviour ($\beta = 0.122$, $p = .056$). Although the positive coefficient approached the conventional significance threshold, the result remained statistically insignificant at the 5% level. This finding suggests that confidence in the safety and reliability of digital payment systems may not independently explain variations in spending behaviour when the other predictors are considered. Security features, including passwords, biometric authentication, one-time passwords, and transaction notifications, may strengthen users' confidence in digital payment platforms. However, greater perceived security does not necessarily translate into increased expenditure. Furthermore, the findings do not establish an indirect relationship between security perception and spending behaviour through social influence, as no mediation analysis was reported.

Consumer habits emerged as the strongest and only statistically significant predictor of spending behaviour ($\beta = 0.703$, $p < .001$). This finding indicates that habitual digital payment practices were positively associated with respondents' spending behaviour after accounting for the other independent variables. Individuals who regularly use digital payment systems may become increasingly accustomed to cashless transactions, making these payment methods an integral part of their daily purchasing activities. The convenience and efficiency of digital payments may facilitate repeated transactions and reduce the need to handle physical cash. Consequently, habitual users may be more inclined to engage in frequent or unplanned purchases. This finding highlights the importance of consumer habits in understanding spending patterns in an increasingly cashless environment, particularly among individuals with limited financial resources.

In contrast, social influence did not significantly predict spending behaviour ($\beta = 0.024$, $p = .711$). Although friends, classmates, family members, and online communities may influence individuals' decisions to adopt digital payment platforms, the regression results indicate that social influence did not have a statistically significant independent effect on spending behaviour. Exposure to peer recommendations, cashback incentives, promotional discounts, online shopping trends, and social media advertisements may encourage the use of cashless payment services. However, these social factors did not independently explain spending behaviour after controlling for digital payment adoption, security perception, and consumer habits. This finding suggests that habitual purchasing practices may be more closely associated with spending behaviour than social influence within the present regression model.

Overall, the findings highlight the importance of distinguishing between digital payment adoption and habitual payment behaviour. Although digital payment systems provide convenient and accessible transaction methods, their adoption does not necessarily

result in significant changes in spending behaviour. Instead, the results indicate that consumer habits are more strongly associated with spending patterns. The findings also suggest that security perception and social influence may be relevant to digital payment usage, although neither demonstrated a statistically significant independent influence on spending behaviour in this study. Therefore, the results support the importance of considering habitual financial practices when examining spending behaviour in the context of digital payment systems in Malaysia and India.

The findings offer practical implications for students, educators, policymakers, and financial technology providers. Students should be encouraged to monitor their expenditure, review transaction histories, and establish personal budgets when using digital payment platforms. Educators may incorporate financial literacy programmes that emphasise responsible digital payment practices, budgeting skills, and awareness of impulsive purchasing behaviour. Policymakers and financial technology providers may also consider implementing spending notifications, budget-tracking features, transaction summaries, and financial management tools to help users monitor their financial activities. Such initiatives may encourage responsible spending practices while allowing individuals to benefit from the convenience and accessibility of digital payment technologies.

CONCLUSION

This study examined the influence of digital payment adoption on spending behaviour among respondents in Malaysia and India. Specifically, the research investigated the relationships between digital payment adoption, security perception, social influence, consumer habits, and spending behaviour. The findings revealed that consumer habits were the only variable demonstrating a statistically significant positive influence on spending behaviour, whereas digital payment adoption, security perception, and social influence did not exhibit statistically significant independent effects in the multiple regression model.

The findings suggest that the adoption of digital payment systems alone does not necessarily lead to significant changes in spending behaviour. Although digital payment platforms, including e-wallets, QR code payments, online banking, and mobile payment applications, provide convenience and efficiency in financial transactions, their adoption was not a significant independent predictor of spending behaviour in this study. Nevertheless, the increasing accessibility of cashless payment systems may contribute to changes in how individuals conduct their daily financial transactions.

Among the variables examined, consumer habits emerged as the strongest predictor of spending behaviour. This finding highlights the importance of repeated and habitual digital payment practices in shaping purchasing patterns. As digital payments become integrated into everyday financial activities, individuals may become increasingly accustomed to cashless transactions, potentially encouraging more frequent purchases and reducing their awareness of expenditure. Therefore, habitual payment behaviour represents an important consideration in understanding spending patterns within an increasingly cashless environment.

Although digital payment adoption, security perception, and social influence were not statistically significant predictors in the regression model, these factors remain relevant to understanding individuals' experiences with digital payment systems. They may contribute to the development of consumer habits over time; however, such relationships require further empirical investigation.

Overall, this study contributes to the existing literature on digital payment adoption and spending behaviour in Malaysia and India by highlighting the significant role of consumer habits. The findings emphasise the importance of encouraging responsible spending practices and effective financial management among digital payment users, particularly university students. Educators, higher education institutions, policymakers, and financial technology providers are encouraged to promote financial literacy, budgeting awareness, and responsible digital payment practices to support better financial decision-making.

LIMITATION

This study has several limitations that should be considered. First, the relatively small sample of 158 respondents, predominantly comprising young adults and university students, may limit the generalisability of the findings to broader populations. Future research should include larger and more diverse samples across different age groups, educational backgrounds, and income levels. Second, the quantitative approach using an online questionnaire may not fully capture the underlying motivations and psychological factors influencing spending behaviour. Therefore, qualitative or mixed-methods approaches are recommended to provide deeper insights. Third, the study examined only four independent variables: digital payment adoption, security perception, social influence, and consumer habits. Future studies could incorporate additional factors, such as financial literacy, impulsive buying, budgeting behaviour, income, peer pressure, and promotional activities. Furthermore, although respondents were drawn from Malaysia and India, country-specific differences were not statistically examined. Future research should conduct comparative analyses across these countries and other Southeast Asian and South Asian nations to explore potential cultural and economic differences. Finally, longitudinal studies are recommended to investigate how digital payment adoption and consumer habits evolve over time and influence financial management and responsible spending behaviour.

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DECLARATION OF CONFLICTING INTERESTS

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REFERENCES

- Ahmad Ramli, F. A. (2021). Understanding consumer adoption of QR-code based e-wallet services: An extended UTAUT 2 approach [Doctoral dissertation, Universiti Teknologi MARA]. UiTM Institutional Repository. <https://ir.uitm.edu.my/id/eprint/60345/>
- Azman, H. binti, Lih, C. S., & Yahaya, S. N. (2021). Factors affecting adoption of e-wallet among Gen Y in Pahang. *Journal of Technology Management and Technopreneurship*, 9(2), 47–57. <https://jtmt.utem.edu.my/jtmt/article/view/6046>
- Bakar, J. A., & Yeum, N. S. (2024). Embracing mobile wallets for the future of digital payments in Malaysia. *Pakistan Journal of Life and Social Sciences*, 22(2). <https://doi.org/10.57239/PJLSS-2024-22.2.001262>
- Edeh, J. N., et al. (2021). Digital payment systems and consumer buying behavior: A study of university students. *International Journal of Applied Business and Management*, 9(4), 112–125. <https://doi.org/10.57178/jer.v9i1.2288>

- Effendy, F., Hurriyati, R., & Hendrayati, H. (2021). Perceived usefulness, perceived ease of use, and social influence: Intention to use e-wallet. In *Proceedings of the 5th Global Conference on Business, Management and Entrepreneurship (GCBME 2020)* (pp. 311–315). Atlantis Press. <https://www.atlantispress.com/proceedings/gcbme-20/125960460>
- Faraz, N., & Anjum, A. (2025). Spendception: The psychological impact of digital payments on consumer purchase behavior and impulse buying. *Behavioral Sciences*, 15(3), Article 387. <https://doi.org/10.3390/bs15030387>
- Fikri, A. A. H. S., Sholeh, M., Susilowati, N., Afandi, M. R., & Febrianto, I. (2025). Digital wallets and student finances: Analyzing behavioral shifts in the era of cashless payments. *Sinergi International Journal of Management and Business*, 3(4), 254–268. <https://doi.org/10.61194/ijmb.v3i4.898>
- Gurusamy, R., & Aiswarya, B. (2024). Digital payment technology and consumer behaviour: Saving, spending patterns: Are saving and spending patterns a concern? *Journal of Information Technology Teaching Cases*, 14(2), 223–226. <https://doi.org/10.1177/20438869231178846>
- Hang, A. W. P., Singh, P., Huei, L. Y., Dajun, Y., Shengpu, Y., Zixin, Y., & Kee, D. M. H. (2025). From cash to cashless: The impact of cashless payment adoption on student spending behavior in Malaysia. *Advances in Global Economics and Business Journal*, 6(2), 163–179. <https://mail.agebj.org/index.php/agebj/article/view/127>
- Indrawati, et al. (2022). Understanding the adoption of contactless payment among Generation Z. *Journal of Financial Services Marketing*, 27(3), 150–165. <https://doi.org/10.1057/s41264-022-00143-2>
- Jiang, Y. (2022). The influence of payment method: Do consumers pay more with mobile payment? [Doctoral dissertation, Claremont Graduate University]. ProQuest Dissertations & Theses Global. <https://www.proquest.com/openview/87a18eef67d007cc923babe21b38f998/1>
- Kaim, S., Kean, K. L., Khairul, A. B. A., Tarmidzi, N. B., Sulaiman, N. A. B., Anuar, N. A. B. S., & Kee, D. M. H. (2024). From cash to clicks: The impact of Touch 'n Go on student financial behaviors. *Advances in Global Economics and Business Journal*, 5(2), 107–121. <https://agebj.org/index.php/agebj/article/view/98>
- Kee, D. M. H. (2022). The rise of e-wallets in Malaysia: Challenges and opportunities for the youth. *Asian Journal of Business Research*, 12(1), 23–40. <https://doi.org/10.32535/apjme.v8i3.4254>
- Lim, S. H., Koay, L. K., Teoh, K. B., & Kee, D. M. H. (2024). Bridging theory and practice: Implementing work-based learning in Malaysian higher learning institutions. In N. Joshi, F. A. Malik, C. Gulati, & A. Dubey (Eds.), *Fostering industry-academia partnerships for innovation-driven trade* (pp. 147–161). IGI Global. <https://doi.org/10.4018/979-8-3693-3096-8.ch011>
- Malik, S., & Rana, A. (2025). The rise of digital payments: Implications for consumer behavior and spending habits. *IITM Journal of Business Studies*, 13(1), 36–60. <https://acspublisher.com/journals/index.php/jbs/article/view/24152>
- Mathur, G., Kee, D. M. H., Banerjee, S., & Banerjee, R. (2026). Building strategic resilience: Harnessing digital transformation and internet behaviors. In *Advancing sustainability through technology management* (pp. 177–200). IGI Global Scientific Publishing. <https://www.igi-global.com/chapter/building-strategic-resilience/396241>
- Pal, A., Herath, T., De', R., & Rao, H. R. (2021). Is the convenience worth the risk? An investigation of mobile payment usage. *Information Systems Frontiers*, 23(4), 941–961. <https://doi.org/10.1007/s10796-020-10070-z>
- Rafee, B. M., Ramesh, V., Asan, S. J., Amzad, B., & Zaheed, M. (2022). A survey on implications of cashless payments on the spending patterns of urbanites in the

- era of digital India. *International Journal of Early Childhood Special Education*, 14(7), 2040–2048. <https://doi.org/10.48047/INTJECSE/V14I7.289>
- Sapian, N. M., & Ismail, S. N. (2021). The impact of using cashless transactions among Malaysian consumers towards payment systems performance. *Research in Management of Technology and Business*, 2(1), 420–436. <https://publisher.uthm.edu.my/periodicals/index.php/rmtb/article/view/1890>
- Singh, S. K., Singh, S. S., & Singh, V. L. (2023). Predicting adoption of next generation digital technology utilizing the adoption-diffusion model fit: The case of mobile payment interface in an emerging economy. *Access Journal*, 4(1), 130–148. <https://pdfs.semanticscholar.org/818e/4a8224786cb2db8b689a629aec1b4077977e.pdf>
- Teoh, K. B., & Kee, D. M. H. (2022). Psychosocial safety climate and burnout among Malaysian research university academicians: The mediating roles of job demands and work engagement. *International Journal of Trade and Global Markets*, 15(4), 471–496. <https://doi.org/10.1504/IJTGM.2022.125910>
- Teoh, K. B., Kee, D. M. H., & Akhtar, N. (2021). How does psychosocial safety climate affect burnout among Malaysian educators during the COVID-19 pandemic? *Asia-Pacific Social Science Review*, 21(4), 86–99. <https://animorepository.dlsu.edu.ph/apssr/vol21/iss4/23/>
- Yang, M., Mamun, A. A., Mohiuddin, M., Nawi, N. C., & Zainol, N. R. (2021). Cashless transactions: A study on intention and adoption of e-wallets. *Sustainability*, 13(2), Article 831. <https://doi.org/10.3390/su13020831>

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