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Adoption of Cashless Payment Among Undergraduate Students: A Case Study

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Abstract: The increasing acceptance of cashless payment systems has led to a significant transformation in the global financial transaction landscape in recent years. As technology evolves and consumer preferences shift, digital payment methods are gradually taking the place of traditional cash transactions. This change not only facilitates financial transactions for individuals and businesses but also has significant implications for convenience, security, and financial inclusion. This paper investigates the key factors driving the transition to cashless transactions during this period, along with the benefits and drawbacks associated with society's growing embrace of this innovative approach to managing finances. The primary focus of research in this area revolves around the adoption and use of digital or cashless payment methods. A quantitative methodology was employed, and a questionnaire was administered to 113 participants. The data were analyzed using the Statistical Package for Social Science (SPSS) Version 27. The findings indicated that Performance Expectancy (PE) and Perceived Technology Security (PT) played significant roles in the adoption of cashless payments among undergraduate students while Facilitating Condition (FC) and Social Influence (SI) did not significantly affect their adoption of such payment methods. This study provides valuable insights into assessing individuals' willingness, intentions, or actual behaviors regarding various electronic transaction forms, including mobile wallets, credit/debit cards, online payments, and contactless methods. Additionally, researchers can utilize these variables to explore the factors that influence users' acceptance or rejection of cashless payment systems.

Keywords: *Cashless Payment Systems, Digital Payment Systems, E-Wallet, Adoption of Cashless Payment.*

1. Introduction and Background

Malaysia's embrace of cashless applications is rooted in its extensive history of economic and technological advancement. The financial landscape in Malaysia has gradually transitioned from a mainly cash-oriented culture to one that is increasingly digital and technology-driven. This transition may be linked to several causes, including the growth of the telecommunications and banking industries, as well as the widespread use of cell phones and internet access. The launch of the Financial Sector Master Plan (FSMP) in 2001 represented a pivotal point in Malaysia's advancement toward cashless transactions. The FSMP laid the groundwork for modernizing the financial system, including initiatives to increase the use of electronic payments and reduce reliance on physical currency. This concept was critical in influencing the path of cashless acceptance. In addition, the FSMP seeks to establish a framework for creating an effective, competitive, resilient, and dynamic financial system that incorporates best practices, supports economic growth during all phases of the business cycle, and is anchored by robust and progressive domestic financial institutions that are increasingly technology-oriented and prepared to tackle the challenges posed by liberalization and globalization.

The introduction of digital payment systems such as mobile wallets, contactless cards, and online payment platforms has transformed the way people and organizations conduct financial transactions. This shift from traditional cash-based transactions to electronic forms of payment has far-reaching consequences for individuals, businesses, financial institutions, and governments. According to statistics, as of May 2022, Malaysian consumers prefer online banking as their primary cashless payment method, followed by debit cards, e-wallets, and credit cards (Statista Research Department, 2023).

To start, the growing prevalence of smartphones and internet access has made it easier for individuals to utilize digital payment platforms, enabling transactions without relying on physical cash. Additionally, the COVID-19 pandemic significantly impacted the rise of cashless payments, accelerating the shift toward contactless transactions, which is considered a more sanitary way to manage payments during this time. This indicates that the focus of this study is on Malaysian citizens, specifically looking at the use of various cashless payment

methods: prepaid cards (60%), internet payments (51%), debit cards (46%), credit cards (66%), and mobile phone payments (43%), with these percentages representing the rate of consumer usage (Rahman, et al., 2020).

The concept of cashless payment options is not well-established or fully developed in developing countries, particularly among Malaysian consumers. The growth of cashless payment systems is expected to persist, with a 2022 Consumer Payment Attitudes Study finding that 74% of Malaysian consumers have successfully adopted cashless transactions. The main digital payment methods currently used in the market include 70% for Card Online, 56% for Contactless Card, and 54% for Swipe/Insert Card (Visa, 2022). The study also indicated that since the pandemic, card payments have overtaken cash usage in Malaysia, suggesting that its residents are becoming more inclined toward cashless transactions. It is projected that Malaysia will evolve into a cashless society by 2030, meaning that most consumers will shift to cashless methods for their everyday financial activities, reducing their dependence on physical currency.

The increasing popularity of cashless payment systems has caused a significant transformation in the global landscape of financial transactions in recent years. As technology advances and consumer preferences evolve, digital payment options are steadily replacing traditional cash transactions. This shift not only enhances the ease of financial transactions for both individuals and businesses, but also has extensive implications for convenience, security, and financial inclusion. We explore the key factors driving the transition to cashless transactions in this era, along with the benefits and challenges that come with society's growing adoption of this innovative way to manage finances. A central element in studies focused on the usage and acceptance of digital or cashless payment methods is this variable, which is crucial for assessing individuals' willingness, intention, or actual behavior regarding various forms of electronic transactions, such as mobile wallets, credit/debit cards, online payments, and contactless systems. Researchers frequently use this variable to investigate the factors affecting users' acceptance or rejection of cashless payment systems. The Consumer Payment Attitudes Study (2022) indicates that the movement towards cashless transactions is gaining traction throughout Southeast Asia, with 93 percent of consumers adopting various digital payment methods, including cards, contactless cards, mobile wallets, and QR code payments. Malaysia is noteworthy, with 96 percent of consumers at the forefront of this shift (Visa, 2022).

The COVID-19 pandemic has accelerated the region's transition to a cashless society, with consumers managing to be cashless for an average of 11.6 days, which marks a 14.6 percent increase. Notably, Malaysia has the highest average at 12.9 days. More than half of Southeast Asian consumers, particularly in Malaysia, have considerably decreased their dependence on cash since the pandemic began (Visa, 2022). Contactless cards remain favored, with 44 percent of consumers in the region using them, an increase from 38 percent in 2020. The rise in contactless card usage during the pandemic points to their potential for ongoing growth. Additionally, mobile contactless payments show strong growth potential due to high awareness and interest levels, especially in Malaysia, where 80 percent are aware of this payment option and 72 percent indicate interest in adopting it (Visa, 2022). However, research indicates that a majority of Malaysian consumers still favor cash. Thus, we have pinpointed the variables of our study, which include performance expectancy, facilitating conditions, social influence, and perceived technology security.

Performance expectancy refers to how much consumers believe that using a system will help them improve their work performance (Chua et al., 2018). Facilitating conditions denote an individual's perception of the availability of technological resources that can aid in utilizing information systems (Venkatesh et al., 2003). According to Kelman (1961), social influence arises from persuasive communication. This implies that social influence pertains to how a person alters their behavior to conform to the expectations of their social environment, subsequently affecting their self-perception in relation to the influencer, other individuals, and society as a whole. Technology security involves identifying vulnerabilities within a security framework and finding appropriate solutions to mitigate the risks of technology failures or hacking of consumer data (Andreu, 2020). A study of 33 countries worldwide indicated that Malaysia had only 2% of consumer transactions being cashless five years ago (Thomas et al., 2013).

This study sought to fill a significant gap in the existing literature by assessing consumers' readiness for cashless transactions, including their access to financial services. The research employed the well-recognized

Unified Theory of Acceptance and Use of Technology (UTAUT) model. Several shortcomings were identified, indicating that technology in Malaysia lags behind that of other nations. While examining earlier studies that utilized the same theoretical framework, this research aimed to address the existing gap, as the UTAUT model has proven to be more efficient, precise, and accurate in previous investigations. Therefore, this study focused on exploring the adoption of cashless payment among undergraduate students, specifically within the Faculty of Business and Management (FBM) at UiTM Puncak Alam, Malaysia.

2. Literature Review

The transition to cashless transactions signifies a behavior change, where people stop using physical money for the exchange of goods and services. Instead, they choose electronic transfers or other non-electronic methods like checks (Tee and Ong, 2016). The implementation of electronic payment systems paves the path for an economy that operates without cash. This literature review aims to present a thorough overview of the existing knowledge regarding the usage of cashless applications. It addresses the various dimensions of this complex issue, including the factors that impact adoption such as Performance Expectancy (PE), Facilitating Conditions (FC), Social Influence (SI), and Perceived Technology Security (PTS) among citizens of Malaysia. The acceleration of the country's shift toward electronic payments (e-payments) has become a crucial focus of the Bank's efforts to enhance the efficiency of the nation's payment systems (Bank Negara Malaysia, 2011).

Adoption of Cashless Payment among Consumers (ACP)

In 2004, the government started to engage in e-payment initiatives by accepting bank cards and introduced a new Automated Teller Machine (ATM) card developed by the Malaysian Electronic Payment System (MEPS) to replace magnetic stripe ATM cards nationwide, as well as offering online payment services to consumers (Amir Akmar Basir, 2009). The evaluation of cashless payment adoption among consumers will focus on shifting market dynamics and the emergence of innovative payment technologies. Jeevan (2000) noted that Internet banking allows banks to provide cost-effective and high-value-added financial services. Technological advancements, increased competition and evolving lifestyles have transformed the banking landscape, prompting banks today to seek alternative methods to deliver distinct services, as highlighted in the journal article Bankers' Perspectives On E-Banking (Sharma, 2011).

The impact of technological innovation on establishing a cashless environment is influenced by the social and economic ramifications of widespread adoption, especially as developing nations strive to become developed ones for future generations, alongside businesses and consumers becoming more aware of the digital ecosystem (Yang et al., 2021). ACP emerges as an essential metric for understanding consumer behavior and preferences in financial transactions as it navigates the landscape of new technologies. Similarly, in a study investigating the adoption of cashless payments among Malaysian consumers, the dependent variable is the adoption of cashless payment methods, assessed through various indicators such as the frequency of cashless transactions and the utilization of specific cashless payment options (Rahman et al., 2020).

Performance Expectancy (PE)

Performance expectancy has been the subject of extensive research and is recognized as a crucial element influencing users' willingness to adopt and utilize technology. This research is often situated within the framework of technology acceptance models. Performance expectancy (PE) refers to an individual's belief regarding how utilizing a system can enhance their performance (Venkatesh et al., 2012). In other words, people are more likely to adopt new technology if they believe it will increase their work efficiency. Performance expectancies were integrated with five concepts drawn from various models. These concepts included relative advantage, extrinsic motivation, perceived usefulness, job fit, and outcome expectations (Chakraborty & Al Rashdi, 2018).

The Technology Acceptance Model (TAM)

The Technology Acceptance Model (TAM), introduced by Davis in 1989, highlights that users' attitudes and intentions toward technology are significantly shaped by their perceptions of its usefulness and ease of use. A key component of perceived usefulness is performance expectancy, which reflects users' beliefs about how effectively the system will assist them in completing tasks or performing their jobs (Kraus et al., 2023). In the UTAUT model, performance expectancy is shaped by perceived usefulness, which is rooted in TAM (Venkatesh

et al., 2003). This research explores how performance expectancy influences the adoption and use of mobile applications in today's mobile technology landscape. The extent to which users feel a mobile app enhances their performance—whether through increased efficiency, convenience, or productivity—greatly affects their likelihood of embracing new technologies (Malik et al., 2017).

Facilitating Condition (FC)

Based on (Tarhini et al., 2016), employing various strategies to encourage Internet banking, along with offering access to the latest technologies and organizational support, can reduce barriers to using Internet banking and ultimately improve its actual adoption. This technology is essential, particularly for facilitating the acceptance of cashless payments among UiTM students. In today's world, cashless payments rely on internet connectivity and technological advancements. When adopting any new technology, providing facilitating conditions can offer valuable information, guidance, and training (Sivathanu, 2019). This adoption process simultaneously exposes all student populations to cashless payments and prepares them to utilize this payment method. As they become familiar with cashless transactions, they are likely to embrace this payment method as their preferred option for daily transactions. The facilitating conditions influence the adoption of cashless payments. It is important to comprehend and address these facilitating conditions to encourage the use of cashless payments within target groups.

Social Influence (SI)

Social influence refers to the psychological and sociological processes through which individuals, groups, or societal norms affect the thoughts, behaviors, and attitudes of others. It includes various types, such as conformity, compliance, and obedience, where individuals adapt to group expectations or respond to direct requests. The origins of influence vary widely, involving peers, authority figures, media, and cultural traditions. Elements like credibility, context, and social norms play a role in the effectiveness of social influence, impacting personal decisions and societal trends. This phenomenon is crucial for cultural transmission, maintaining social order, and forming collective identities. As people navigate the complexities of social influence, they both influence and are influenced by the intricate web of social dynamics in ways that are both conscious and subconscious. The concept of social influence (SI) has been extensively applied to assess customers' openness to adopting mobile payments (Peng, S., et al., 2017). Social influence involves an individual adjusting their behavior to meet the expectations of a social environment, thus changing their self-perception in relation to others, the influencer, and society as a whole. Family, friends, colleagues, and neighbors can serve as potential influences for customers to adopt cashless payment methods (Pillai, 2019). Social influence can also be enhanced by social media and other online platforms that share opinions and information about cashless transactions.

Perceived Technology Security (PTS)

The key factor influencing user interest in Internet banking is perceived technological security. Security worries have been recognized as a significant obstacle to e-commerce adoption (Salisbury et al., 2001). Technological security involves identifying security vulnerabilities and creating suitable responses to mitigate the risks of technological failures or breaches of consumer data (Andreu, 2020). Security should be a top priority for consumers regarding technology, as users' confidence in technology depends heavily on their perception of security. When individuals feel that their data and privacy are well protected, they tend to trust the technology more and, consequently, are more inclined to utilize it. The idea of perceived technological security centers on the deployment of strong systems designed specifically to safeguard consumer information. Whether it pertains to business or personal data, the technological security framework is essential in reinforcing the information exchange and preventing unauthorized access (Mohamad, Teh, Lai, & Chen, 2018).

This entails the tactical design and implementation of systems that extend beyond basic protection, incorporating a holistic strategy to prevent any unauthorized access. By establishing a secure environment, these systems not only safeguard sensitive data but also foster user confidence, assuring them that their information is protected from potential security threats. In today's world, where digital interactions are commonplace, the importance of such technology security measures is paramount. In the context of adopting cashless systems in the study, the perceived security of the technology can affect its perceived usefulness and ease of use, both critical factors in determining user acceptance and adoption for the research.

Hypothesis Development

Performance Expectancy (PE) Towards Adoption of Cashless Payment

One of the strongest factors affecting adoption behavior is performance expectation. Performance expectation refers to the user's belief that the technology will enhance their performance (Hung et al., 2019). Prior studies have shown that performance expectancy has a substantial effect on behavioral intention. Online banking enables customers to execute payments easily, rapidly, and with effective customer support, leading users to think it streamlines their financial processes (Martins et al., 2014). PE has been identified as a significant factor influencing the intention to accept technology (Lu & Kosim, 2022). Customers are more likely to utilize mobile banking services when the platform meets their expectations for efficiency and favorability, making performance expectancy a vital factor in the adoption of mobile banking (Alalwan et al., 2017). Furthermore, research has indicated that performance expectancy significantly affects the intention to engage with mobile banking, highlighting its major influence on user behavior (Changchit et al., 2017). Users' anticipation of positive outcomes, including feelings of achievement or satisfaction, affects their decisions to adopt technology. If users believe that integrating cashless payment methods enhances transaction efficiency, adds value, improves performance, provides relative benefits, and yields favorable results, they are more likely to adopt these methods into their financial practices. Additionally, PE is a crucial predictor of customers' intentions to use mobile banking services; however, these outcomes may vary based on the mobile banking features in different countries (Merhi et al., 2019). Thus, it was hypothesized that;

H1: There is a positive relationship between performance expectancy and the adoption of cashless payments.

Facilitating Conditions (FC) towards Adoption of Cashless Payment

When discussing technology, it relates to facilitating conditions (FC). The presence of a robust technology infrastructure, which includes accessible terminals, reliable internet connections, and user-friendly payment applications, is expected to positively influence consumer acceptance of cashless payments. Consumers are likely to keep using cashless payment options as long as they experience the convenience provided by service providers that simplify payments and transactions. Advances in technology have significantly aided the adoption of cashless payment methods, particularly among students at the Faculty of Business and Management in UiTM Puncak Alam. Therefore, facilitating conditions play a notably positive role in the adoption of e-wallets. Cashless payment requires the development of basic skills and standards such as using payment apps and sending or receiving text messages, which are known as facilitating conditions (Kiconco et al., 2020). In basic terms, the shift to cashless payments is reliant on the necessary technology and internet access for consumers. Technology is the key component of cashless payment systems. For instance, both smartphones and debit/credit card payment terminals are types of technology, as they serve as electronic devices needed to connect technology with the customer, along with the skills and knowledge required for their use. This indicates that facilitating conditions are closely linked to the adoption of cashless payments and are interdependent. These results suggest that when facilitating conditions are present, consumers often engage in social networks. Hence, it was hypothesized that;

H2: There is a positive relationship between facilitating conditions and the adoption of cashless payment.

Social Influence (SI) Towards Adoption of Cashless Payment

Social influence (SI) can alter individuals' views on embracing cashless payments as a new technological service. Typically, potential users consult those in their vicinity. This is why social influence has emerged as a key factor in the adoption of cashless payments. As previously stated, social influence can originate from a variety of sources, including family, friends, or even strangers. The decision to adopt cashless payments can be shaped by social influence, particularly through interactions with individuals who provide information about the new technology needed in our daily lives. In the realm of social influence, conforming to group behavior norms affects individuals and legitimizes their actions. Society plays a significant role in the adoption of technological advancements. The integration of technology involves two essential aspects: individuals' acceptance of the technology and its incorporation into society (Vannoy & Palvia, 2010). The social influence component has been widely recognized in the study of technology adoption and has demonstrated a positive effect on behavioral intentions. Hence, it is hypothesized that social influence will have a significant positive impact on the adoption of cashless payments among UiTM students in Malaysia. Social media and other digital platforms can amplify SI by spreading knowledge and opinions related to cashless transactions. Moreover, influencer marketing and social media tactics used by companies offering various cashless transaction methods can also positively influence a person's decision to adopt them (Thaker, Subramaniam, Qoyum & Hussain, 2022). As such, it was hypothesized that;

H3: There is a positive relationship between social influence and the adoption of cashless payments.

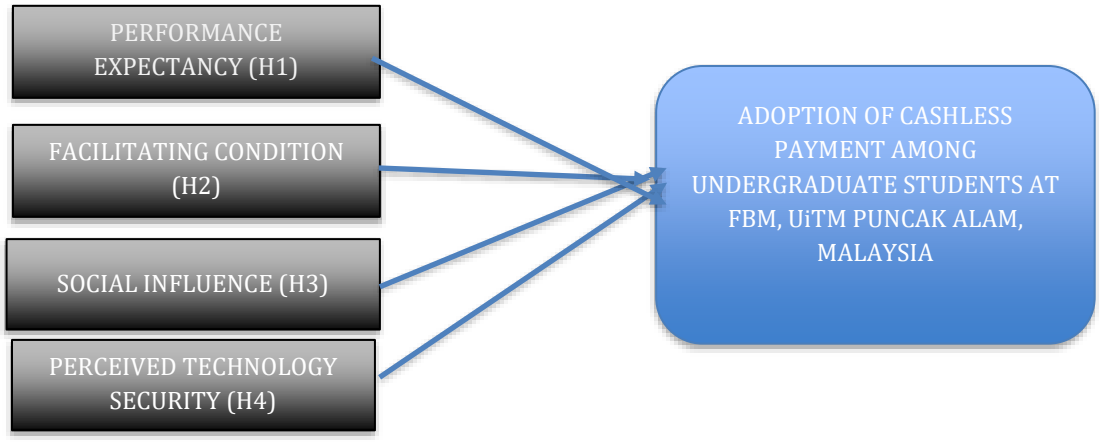
Perceived Technology Security (PTS) Towards Adoption of Cashless Payment

Embracing cashless payment systems brings a variety of benefits for consumers. These payment methods provide both convenience and speed (Teo, Tan, Ooi, Hew, & Yew, 2015). Integrating cashless payment options can shape perceptions regarding technology security by generating both trust and apprehension. Various studies highlight important factors and recommend strategies to influence the adoption of cashless payments (Mukhopadhyay, 2016; Ozturk, 2016). While some users view it as a secure and convenient choice due to advancements in encryption and authentication, others may raise concerns about possible cybersecurity risks, fraud, or data breaches linked to digital transactions. Ultimately, how individuals perceive this technology relies on their personal experiences, understanding of security measures, and the effectiveness of the technologies in place. The efficiency and competence of a nation's financial and monetary institutions are vital to economic growth and are significantly affected by the widespread use of cashless payment systems (Essame 2006, Hasan et al. 2012, Zandi et al. 2013). Therefore, as users become more informed about the security features of cashless payment systems, their perceptions of overall technological security tend to improve. Additionally, factors such as educational initiatives, transparent communication regarding security protocols, and user-friendly technology also influence the students from various universities in Malaysia studied here. Research indicates that perceived technology security is one of the primary factors affecting the acceptance of cashless payments (Liu et al., 2019). When users hold a positive view of technology security, they can utilize this insight to create consumer products and services that support the widespread adoption of cashless payment systems, thus improving the overall efficiency and reliability of digital transactions. Therefore, it was hypothesized that;

H4: There is a positive relationship between perceived technology security and the adoption of cashless payment.

The conceptual framework from the earlier study is illustrated in Figure 1. The UTAUT framework was employed to identify the variables relevant to the study in focus. UTAUT is a theory that encompasses key constructs, including performance expectancy, facilitating conditions, social influence, and effort expectancy. Various theories and models regarding technology acceptance have been created as a framework to investigate how individuals understand and embrace new technologies, how they utilize them, and the potential impact of their use on ongoing engagement (Momani, 2020). Referring to Figure 1, H1 represents performance expectancy, H2 indicates facilitating conditions, H3 denotes social influence, and H4 refers to perceived technology security.

Figure 1: Adopted Conceptual Framework Study (Rahman et al., 2020)



3. Research Methodology

A quantitative research study was carried out to investigate the adoption of cashless payment methods among undergraduate students at FBM, UiTM Puncak Alam. In this study, questionnaires were shared with students from the Faculty of Business and Management at the UiTM Puncak Alam campus via social media platforms like

WhatsApp and Telegram. The data from the questionnaires were analyzed using SPSS software (Statistical Package for Social Sciences) Version 27.

The focus of this study was a population of 6,325 undergraduate students from the Faculty of Business and Management at UiTM Puncak Alam. A sample of 113 undergraduate students was chosen for this study. A convenience sampling method was used as the sampling technique for this research. Participants were selected based on their availability and willingness to participate. Primary data for this research was gathered through questionnaires. The survey questionnaire is divided into six sections. Section A is based on Nominal and Ordinal scales, while Sections B through F utilize an interval scale, commonly referred to as the Likert scale. In this study, the scale ranges from 1 (strongly disagree) to 4 (strongly agree).
The questionnaire consists of six sections as listed below:

- Section A: Demographics
- Section B: Performance Expectancy (PE)
- Section C: Facilitating Condition (FC)
- Section D: Social Influence (SI)
- Section E: Perceived Technology Security (PTS)
- Section F: Adoption of Cashless Payment (ACP)

After performing a descriptive analysis of the data, multi-regression was conducted using SPSS version 26, and Cronbach's alpha was used to test the normality and reliability of the data.

4. Results

The analysis method entails a comprehensive review of data collected through a Google Form distributed to both male and female students at UiTM Puncak Alam Faculty of Business and Management. The data collected was examined and interpreted using Statistical Package for the Social Sciences (SPSS) Version 27. The interpretation of patterns, trends, and correlations present in the data set is derived from this quantitative analysis. The main research question aimed to investigate the relationship between the Adoption of Cashless Payment and factors such as Performance Expectancy, Facilitating Conditions, Social Influence, and Perceived Technology Security, utilizing statistical techniques for an in-depth understanding. Descriptive statistics were calculated to offer a summary of the data. The purpose of the analysis was to identify patterns and trends that enhance our understanding of how individuals use technology for payments. The age segment consists of four categories of participants. Furthermore, this study included reliability analysis, regression, and Cronbach's Alpha.

Respondents' Profile

The study included a mixed sample of participants, comprising both male and female respondents, and they ranged in age from 18 to 27 years old and older. The vast majority have a business management bachelor's degree. The UiTM Puncak Alam campus served as the source of respondents, who offered insights into the preferences and actions of students in an academic environment. The bulk of respondents reported regularly using computers, cell phones, and other digital devices, demonstrating their high degree of technical skill. To ensure representation from a range of academic levels and demographic groupings within the Faculty of Business Management, respondents were chosen using stratified random sampling. The questionnaire included 113 participants in all, which produced a sizable dataset for the study.

Table 1: Demographic of the Respondents

	Items	%
Gender	Male	35.4%
	Female	64.4%
Age	18-20 years old	16.8%
	21-23 years old	71.7%
	24-26 years old	9.7%
	27 years old and older	1.8%
Semester	1	8%
	2	10.6%

3		19.5%
4		16.8%,
5		38.9%
6		6.2%
"Do you know Cashless payment?	YES	98.2%
	NO	1.8%

Data Normality Test

This study used SPSS to conduct the normality which is to determine the skewness and kurtosis. The outcome demonstrated that the data gathered was within an acceptable range of data normality. The evaluation for the normality test for each of the variables under consideration is shown below:

According to Table 2, the dependent variable for the adoption of cashless payment (ACP) recorded a mean of 3.5113 and a median of 3.5000. The independent variables, which include Performance Expectancy (PE), Facilitating Condition (FC), Social Influence (SI), and Perceived Technology Security (PTS), exhibited mean values of 3.4707, 3.5315, 3.2140, and 3.2815, respectively.

Performance Expectancy and Facilitating Conditions both have a median of 3.500, while Social Influence and Perceived Technology Security have a median of 3.2500. If the skewness is zero, it indicates that the data is perfectly symmetrical, which is quite rare in real-world datasets. Skewness values below -1 or above 1 suggest a highly skewed distribution. Skewness ranging from -1 to -0.5, or from 0.5 to 1, signifies a strongly skewed distribution. When skewness falls between -0.5 and 0.5, the distribution is considered approximately symmetrical (Klima 2022). The findings indicated that each variable exhibited normal data, with skewness values for Adoption of Cashless Payment at -0.301, Performance Expectancy at -0.621, Facilitating Condition at -0.623, Social Influence at -0.174, and Perceived Technology Security at -0.357. Data with skewness less than 3 are deemed normal. Hair et al. (2010) described normal data as exhibiting skewness values ranging from -2 to +2 and kurtosis values from -7 to +7.

Table 2: Data Normality Test

	OVRL_PE	OVRL_FC	OVRL_SI	OVRL_ PTS	OVRAL_A CP	
N	Valid	111	111	111	111	111
	Missing	0	0	0	0	0
Mean		3.4707	3.5315	3.2140	3.2815	3.5113
Median		3.5000	3.5000	3.2500	3.2500	3.5000
Mode		4.00	4.00	3.00	3.00	4.00
Std. Deviation		.45942	.45241	.53390	.51469	.42291
Skewness		-.621	-.623	-.174	-.357	-.301
Std. Err. of Skewness		. 229	.229	.229	.229	.229
Kurtosis		-.080	-.269	-.547	-.362	-.969
Std. Err. of Kurtosis		.455	.455	.455	.455	.455
Minimum		2.00	2.25	1.75	2.00	2.25
Maximum		4.00	4.00	4.00	4.00	4.00

The kurtosis assessment results indicated that the variable for Adopting Cashless Payment (ACP) had a kurtosis value of -0.969, Performance Expectancy (PE) was -0.080, Facilitating Condition (FC) was -0.269, Social Influence (SI) was -0.547, and Perceived Technology Security (PTS) was between 0.423 and -0.362. According to Hair et al. (2010), data is considered normal if its skewness ranges between -2 to +2 and kurtosis falls between -7 to +7. Therefore, the data collected is appropriate for further analysis.

Reliability

Table 3 presents the findings from the internal consistency analysis regarding the dependent variable, which was the Adoption of Cashless Payment, alongside the independent variables: performance expectancy, facilitating condition, social influence, and perceived technology security. The Cronbach's Alpha offers reliable

evidence for the dependent variable; the intention to use e-wallet, in relation to the independent variables; (i) performance expectancy, (ii) facilitating condition, (iii) social influence, and (iv) perceived technology security. Overall, the internal consistency results are favorable, with values greater than 0.6, as suggested by Konting et al. (2009). According to Table 3, all Cronbach's Alphas surpassed 0.6, indicating that the research questionnaire is both pertinent and trustworthy.

Table 3: Reliability Test (Cronbach's Alpha)

Variable(s)	Item(s)	Cronbach's Alpha
PERFORMANCE EXPECTANCY	Q1: Cashless payment is useful to save time. Q2: Cashless payment would enable me to conduct tasks more easily (i.e: financial transfer, shopping). Q3: Cashless payment would increase my productivity. Q4: Cashless payment would improve my work performance	0.779
FACILITATING CONDITIONS	Q1: I have the resources necessary to use cashless payment. (i.e: smartphone, debit card, etc) Q2: Cashless payment is compatible with other applications I use. Q3: I am given the necessary support service and assistance to use cashless payment. Q4: I know necessary to use cashless payment.	0.818
SOCIAL INFLUENCE	Q1: Celebrities influence my behavior by using cashless payments Q2: Family members influence my behavior in using cashless payments. Q3: Friends and colleagues influence my behavior by using cashless payments. Q4: The majority of people around me are utilizing cashless payments.	0.640
PERCEIVED TECHNOLOGY SECURITY	Q1: I feel completely secure operating with cashless payment. Q2: Cashless payment is a secure means of sharing sensitive information. Q3: High consent with safety about online cashless payments. Q4: I think it is secure to adopt cashless payments for students.	0.81738

Table 4: Multiple Regression - ANOVA

Model	Sum of Squares	df	Mean Square	F	Sig
Regression	6.838	4	1.709	14.118	<0.01b
Residual	12.835	106	0.121		
Total	19.673	110			

Multiple linear regression in Table 4 shows an F value of 14.118, where the regression value is <0.01beta with the R square of 0.348. Thus, all the independent variables used in this study were significant. Then, Table 5 summarizes the hypothesis' results. Based on the multiple regression coefficients, only H1 and H4 have a significant relationship($p<0.05$), while H2 and H3 are not.

Table 5: Coefficients

Model	Unstandardized B	Coefficients Std. Error	Standardized t Coefficients Beta	Sig.	Result	
1.(constant)	1.241	0.325		3.823	<0.001	
OVRL_PE	0.214	0.091	0.233	2.366	0.020	**SUPPORT**
OVRL_FC	0.147	0.085	0.157	1.725	0.087	**REJECT**
OVRL_SI	0.043	0.068	0.055	0.636	0.526	**REJECT**
OVRL_PTS	0.264	0.077	0.321	3.435	<0.001	
SUPPORT						

Multiple Regression in Table 6 indicates an R-squared value of 0.348, signifying that 34.8% of the variance in the dependent variable, which represents the factors influencing the adoption of cashless payment among the

undergraduates, can be explained by changes in the selected independent variables: Performance Expectancy, Facilitating Condition, Social Influence, and Perceived Technology Security. The remaining percentage is attributed to other factors not included in the model.

Table 6: Multiple Regression - Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.590a	0.348	0.323	0.34798

Discussion

Table 7: Hypothesis Analysis

	IV	Hypothesis	Analysis
1.	Performance Expectancy	H1: There is a positive relationship between performance expectancy and the adoption of cashless payment.	**Accepted**
2.	Facilitating Condition	H2: There is a positive relationship between facilitating conditions (IV2) and the adoption of cashless payment (DV).	**Rejected**
		H0: There is no relationship between facilitating conditions (IV2) and the adoption of cashless payment (DV).	**Accepted**
3.	Social influence	H3: There is a positive relationship between social influence and (IV3) and the adoption of cashless payment.	**Rejected**
		H0: There is no relationship between social influence (IV3) and the adoption of cashless payment (DV)	**Accepted**
4.	Perceived Technology Security	H4: There is a positive relationship between perceived technology security (IV4) and the adoption of cashless payment (DV).	**Accepted**

The overall findings of this study are presented in Table 7, which includes the variables of performance expectancy, facilitating conditions, social influence, and perceived technology security at a moderate level. On a scale of 1 to 5, the most probable final result of these findings is 3. The hypothesis analysis indicates that performance expectancy is supported by the accepted hypotheses. In contrast, facilitating conditions are not supported. Similarly, social influences are rejected, while perceived technology security is backed by accepted hypotheses. It can be concluded that the adoption of cashless payment is affected by these four factors.

5. Conclusion and Recommendations

In conclusion, this research sought to explore the acceptance of cashless payments among university students, concentrating on aspects such as performance expectancy (PE), facilitating conditions (FE), social influence (SI), and perceived technology security (PTS). The research goals of this study have been successfully achieved, including assessing the impact of performance expectancy and facilitating conditions on the adoption of cashless payments, analyzing the role of cashless payment methods in economic interactions and the broader financial ecosystem, and recognizing the effect of perceived technology security on cashless payment usage.

The exploration of the research questions led to meaningful insights regarding the examined factors. The results supported the hypothesis that there is a positive relationship between performance expectancy and the adoption of cashless payments. However, the hypothesis was not supported due to the absence of a statistically significant link between facilitating conditions and the adoption of cashless payments. Perceived technology security displayed a positive association with the acceptance of cashless payments, while social influence did not demonstrate a significant impact. Consequently, future studies might explore various methods or expand the scope to enhance the comprehension of the factors influencing cashless payment adoption. Nevertheless, the thoroughness and precision of the selected research methodology have been essential in providing valuable evidence and advancing the understanding of the elements affecting the adoption of cashless payment options.

Managerial Implications and Recommendations

Cashless payments are increasingly popular these days. Nevertheless, some individuals still choose traditional

payment methods over this approach. Enhancements are recommended, and additional explanatory elements may need to be incorporated when integrating cashless payments into contemporary society. Hence, it is advised that further investigations into various aspects of cashless payment adoption receive careful attention. Drawing from this research, three suggestions are provided to assist in the transition to cashless payments which are;

Awareness and Information of Cashless Payment - Disseminate as much information on the advantages of cashless transactions in everyday life. There are still some users who make transactions entirely with cash since they may not be aware of the advantages of using cashless payment methods. Further, cashless transactions encourage cleanliness in the current digital age by reducing the interchange of physical currency, which may contain bacteria. Accepting cashless transactions promotes a more efficient, safe, and contemporary financial environment in addition to being in line with technological developments.

Cost of Merchants - The majority of the businesses that did not apply for cashless choices were most likely due to the fees associated with relying on cashless merchants. Merchants are required to pay the Merchant Discount Rate (MDR) for each transaction they execute (iPAy88, 2023). It is a percentage that includes the charges of payment gateways, acquiring and issuing institutions, and card schemes (Visa, MasterCard, Amex, etc.). It is crucial that stakeholders, including financial institutions and legislators, investigate ways to allay these fee worries to promote a more equitable and cost-effective shift to cashless transactions and wider use of cashless choices.

Security Improvement - Since the fear of hacking events and cyberattacks continues to be a major barrier to mainstream adoption, it is imperative to address user concerns over the connecting of bank accounts to cashless services. Building trust and ensuring the integrity of cashless transactions requires the implementation of strong security measures, such as multi-factor authentication, advanced encryption protocols, and frequent system updates. This reassures users that their financial information is well-protected against potential threats.

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