Malaysian Journal of Social Sciences and Humanities (MJSSH) (e-ISSN : 2504-8562)
2025, Volume 10, Issue 2, e003100
DOI: https://doi.org/10.47405/mjssh.v10i2.3100

RESEARCH ARTICLE

An Empirical Study on Consumer Behavioral Intentions towards Alipay in China

Suli Yan[1], Mingjie Xue[2], Rozita @ Uji Binti Mohammed[3]*

[1]Faculty of Business & Management, Universiti Teknologi MARA, 40450 Shah Alam, Selangor Darul Ehsan, Malaysia
Email: 2023567499@student.uitm.edu.my
[2]Faculty of Business & Management, Universiti Teknologi MARA, 40450 Shah Alam, Selangor Darul Ehsan, Malaysia
Email: 2022608206@student.uitm.edu.my
[3]Faculty of Business & Management, Universiti Teknologi MARA, 40450 Shah Alam, Selangor Darul Ehsan, Malaysia
Email: rozlim97@uitm.edu.my

CORRESPONDING AUTHOR (*):
Rozita @ Uji Binti Mohammed
(rozlim97@uitm.edu.my)

KEYWORDS:
Consumers' behavioral
Attitude to use Alipay
Perceived usefulness
Perceived ease of use
Perceived trust
Perceived compatibility

CITATION:
Yan, S., Xue, M., & Rozita @ Uji Mohammed (2025). An Empirical Study on Consumer Behavioral Intentions towards Alipay in China. *Malaysian Journal of Social Sciences and Humanities (MJSSH), 10*(2), e003100. https://doi.org/10.47405/mjssh.v10i2.3100

ABSTRACT

In recent years, mobile payments have revolutionized the way transactions are conducted in China through innovative methods. The main purpose of this study is to investigate the effects of consumers' perceived usefulness, perceived ease of use, perceived trust, perceived compatibility and consumers' attitude on consumers' behavioural intention towards Alipay, by using an extended version of the technology acceptance model (TAM). The method used in this study was quantitative, and the data was collected from 384 users in China. In sample selection, the non-probability sampling method is adopted. The analysis was conducted using Structural Equation Modelling and Smart PLS tools. The results show that consumers' usage attitude significantly affects their behavioural intention. Perceived usefulness, perceived trust and perceived compatibility all significantly affect consumers' usage attitudes and behavioural intentions. Perceived ease of use may influence attitudes toward usage but does not significantly impact usage intention.

Contribution/Originality: The paper's primary contribution is finding that in mature mobile payment platforms like Alipay, trust, compatibility, and usefulness significantly impact user behavior, while ease of use diminishes. The findings suggest focusing on trust, compatibility, and usefulness to enhance user loyalty and guide future platform strategies.

1. Introduction

In this rapid development era, the annual transaction scale of China's third-party mobile payment market has historically reached the RMB 346.2 trillion mark in 2023 with a year-on-year growth of 12%, which signifies that the mobile payment industry in a mobile-

friendly era (Payment and Clearing Association of China, 2023). Furthermore, with the continuous improvement of mobile communication technology, mobile payment is continuously infiltrating into people's daily payment life, and the rapid popularization of mobile devices and applications has led to the rapid development of mobile payment. Mobile payment refers to the process of using mobile devices, such as wireless handsets, personal digital assistants (PDAs), radio frequency (RF) gadgets, and NFC technology, to make payments (Dewan & Chen, 2005). Not only that, the proportion of users who use mobile payment daily is 85.0%. With the rapid development of mobile payments, the Chinese market has given birth to two giants, Alipay and WeChat Pay, which now account for more than 60 percent of the domestic market. Moreover, Alipay's transaction share in 2023 is 34.5%, while WeChat Pay's is 29.0% (Payment and Clearing Association of China, 2023). Compared with other mobile payment platforms such as cloud Flash Pay, Baidu Wallet, JD Pay and others. Alipay and WeChat Pay have deeply integrated into citizen lives and become leaders in the field of third-party payment. The competition for market share is fierce. The data above indicates that mobile payment services are playing an increasingly vital role for both consumers and the economy (Wiese & Humbani, 2020).

Currently, Alipay leads in terms of transaction size, while WeChat Pay dominates in terms of number of users. Alipay is more focused on online payments, while WeChat Pay is mainly used in offline scenarios. Although both hold most of the market share, they still need to be vigilant, because new and strong competitors are constantly entering the market. Looking forward to the future, with the continuous increase in the number of users and the expansion of payment scenarios, the competition between third-party payment enterprises will become increasingly fierce (Senali et al., 2023). Understanding users' functional requirements, improving product experience and enhancing user stickiness are the keys for enterprises to gain competitive advantages**.** Identifying and analysing the factors that affect users' views on innovative technology products and their paths are of great theoretical and practical significance to help enterprises improve product functions and operation modes, to enhance user experience and brand loyalty (Yuen et al., 2021). Therefore, the purpose of this study is to identify the drivers that lead to positive attitudes and intentions to use Alipay. Drawing from the Technology Acceptance Model (TAM) and the Theory of Planned Behaviour (TPB), this study constructs a comprehensive model covering the factors of technology product trust and product compatibility, and explores the mechanisms by which Alipay's perceived usefulness, perceived ease-of-use, perceived trust, perceived compatibility, and attitude toward using Alipay affect consumers' intention to use Alipay. The research results are expected to provide theoretical support for enterprises to improve product service capability and enhance competitiveness.

2. Literature Review and Research Hypothesis

The Technology Acceptance Model (TAM) is regarded as one of the most influential theoretical frameworks in mobile payment (Davis, 1989b). TAM delineates and forecasts users' acceptance of new technologies through an analysis of the causal relationships among beliefs, attitudes, and behaviours (Jawad et al., 2022). Additionally, the Theory of Planned Behaviour (TPB) has gained widespread application in evaluating individuals' adoption of information technology (Ajzen & Driver, 1991). TPB underscores attitudes, subjective norms, and perceived behavioural control as critical cognitive factors that influence intentions (Ajzen & Fishbein, 1975). This model has been utilized to comprehend a diverse array of behaviours including online banking, e-commerce, and intentions regarding technology use (Obaid, 2021). Consequently, this study seeks to

explore the factors affecting Chinese consumers' behavioral intentions toward Alipay by utilizing the Technology Acceptance Model (TAM) alongside the Theory of Planned Behavior (TPB) (Apau & Koranteng, 2019).

The Technology Acceptance Model (TAM) has been extensively utilized in user behaviour research due to its simplicity, efficiency, and robust explanatory power (Cimperman et al., 2016). For instance, the behavioural intention to use e-wallet among Malaysian youth based on TAM and expended that perceived usefulness and ease of use can have a significant impact on both the attitude towards and the behavioural intention to use e-wallets. Similarly, the behavioural intention to use QR Code-based mobile banking application and also highlighted the effect of perceived ease of use and perceived usefulness on people's attitude and intention to use it. Overall, TAM is currently the most widely employed and influential theoretical model for studying information technology adoption behaviour. Building on the above studies, this study posits that perceived ease of use and perceived usefulness have a positive impact on customers' attitudes and behavioral intentions toward using Alipay. And the following hypotheses are made:

Hypothesis 1: Perceived usefulness has positive effect on attitude toward use in using Alipay.

Hypothesis 2: Perceived usefulness has positive effect on behavioural intention in using Alipay.

Hypothesis 3: Perceived ease of use has positive effect on attitude toward use in using Alipay.

Hypothesis 4: Perceived ease of use has positive effect on behavioural intention in using Alipay.

Studies highlight that perceived trust is a multifaceted concept within the realms of marketing and social psychology (Doney & Cannon, 1997). Scholar also characterizes trust as an emotional construct, encompassing both trust itself and a sense of security towards another party (Gefen et al., 2003). They note that consumers' hesitance to engage in online shopping often stems from concerns regarding security. Studies contend that trust holds greater significance than ease of use in shaping individuals' attitudes toward technology (Van der Heijden & Verhagen, 2004). Consequently, a sense of security emerges as a critical factor influencing trusts (Ooi & Tan, 2016). Furthermore, perceived trust is identified as one of the key determinants affecting consumers' behavioural intention to adopt mobile payment systems. Hence, the following hypothesis is proposed for this study:

Hypothesis 5: Perceived trust has positive effect on attitude toward use in using Alipay.

Hypothesis 6: Perceived trust has positive effect on behavioural intention in using Alipay.

Scholar discovered that perceived compatibility plays a crucial role in customers' acceptance of mobile payments, exerting the greatest influence on their willingness to adopt such systems (Schierz et al., 2010). Previous research has also supported the positive effect of compatibility on the intention to adopt mobile payments (Ramos-de-Luna et al., 2016). Therefore, this study considers compatibility to be a key driving factor

in shaping consumers' behavioral intention to adopt mobile payment technologies (Oliveira et al., 2016). Thus, the hypothesis for this study is presented as follows:

Hypothesis 7: Perceived compatibility has positive effect on attitude toward use in using Alipay.

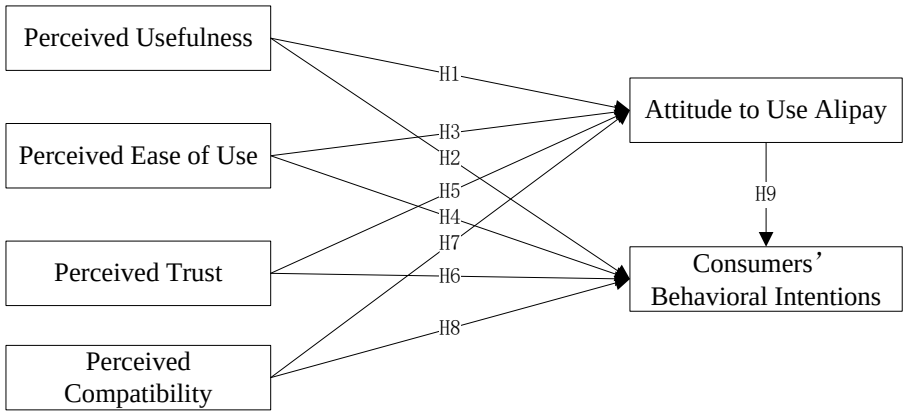
Hypothesis 8: Perceived compatibility has positive effect on behavioural intention in using Alipay.

The Theory of Planned Behavior (TPB) posits that an individual's actual behavior is directly influenced by their behavioral intentions, which are shaped by attitudes, subjective norms, and perceived behavioral control (Ajzen, 2020). Behavioral intentions represent the level of effort a person is prepared to invest in each activity. An individual's positive or negative attitude toward a behavior reflects their evaluation of it. Previous research has extensively examined the intention to use technology, identifying attitude as a key predictor influencing an individual's intention in technology adoption (Chan & Lay, 2021). Grounded in the Theory of Reasoned Action (TRA), this theory serves as a predictor for anticipating behavioural intention (Ajzen & Fishbein, 1975). Furthermore, scholar asserted that an individual's behavioural intention to utilize a specific system can be forecasted by their attitude (Davis, 1989a). Research showed that attitude has a positive impact on intentions to use e-wallets (Rahmawati et al., 2022). Similarly, Scholar investigated the factors affecting e-wallet usage during the COVID-19 pandemic and found that attitudes significantly influence behavioral intentions to adopt e-wallets. Therefore, the hypothesis for this research is stated as follows:

Hypothesis 9: Attitude has a positive impact on the behavioral intention of consumers to use Alipay.

The above literature review and the relationship between the variables constitute the research framework of this study. Based on TAM and TPB, this study introduces the constructs of perceived ease of use, perceived usefulness, perceived trust, perceived compatibility, attitude and intention to use Alipay to influence Beijing customers' intention to use Alipay (Figure 1).

Figure 1: Research Framework



These variables and frameworks can be an attempt to study the intention of Beijing customers to use Alipay, after all, there are not many studies that introduce the four perceptions at the same time to consider the intention of customers to use Alipay. The

study is a validation of the cross-use of TAM and TPB while studying the intention of Beijing customers to use Alipay and also enriches the scope of the TAM in the study of the acceptance of the technology, especially the Alipay application.

3. Research Methodology

As quantitative research, the research data for the present research were obtained by using a questionnaire survey. The population of this study is consumers in Beijing who are over 18 years old and have used mobile payment. Due to the unknown population, this study uses non-probability sampling method for research sampling (Aslam et al., 2017). The sample size was determined by GPower with a minimum sample size of 138. PLS SEM can achieve high statistical power with small sample size, but the larger the sample size, the higher the precision (Hair et al., 2014). Furthermore, Scholar stated that 100 samples are sufficient to achieve an acceptable level of statistical power in PLS (Reinartz et al., 2009). Therefore, to make the study accurate to a higher level, this study determined that the survey sample was 384, both higher than the sample size discussed above.

The composition of the questionnaire encompasses demographic variables and measurement variables. Scholars have defined perceived ease of use (Bhattacherjee, 2001). While some of them defined perceived usefulness and perceived trust (Schierz et al., 2010). Perceived compatibility has also become an important concern in mobile payments. Altitude is an important indicator (Plouffe et al., 2001). People portray it as a behavioural willingness (Yang & Yoo, 2004). Simultaneously, during the questionnaire measurement process a highly structured adapted questionnaire was employed to collect responses. The Likert scale utilized ranged from one to five: where one indicated "strongly disagree," two represented "disagree," three denoted neutrality," four signified "agree," and five corresponded to "strongly agree." These preparations are intended for subsequent data analysis and discussion.

The study focused on respondents living in Beijing, China, who met the criteria of being at least 18 years old and having some familiarity or experience with mobile payments. Additionally, participants were required to be capable of making payments via the internet or a mobile phone. The survey items were adapted from established scales and tailored to the specific context of this study. This approach provides two main benefits: it ensures the measurement tools are both valid and reliable, and it facilitates meaningful comparisons between this study's findings and those of prior research. Data were collected in Beijing, a municipality directly under the central government of China. The questionnaire was hosted on Questionnaire Star, a platform equivalent to Google Forms in China, and distributed through email and QR code links, which were further shared via social media platforms. Respondents' consent has also in accordance with the ethical recommendations and approval granted via Universiti Teknologi MARA, Malaysia. All respondents have been knowledgeable of the study's reason, their rights, and the confidentiality in their data after supplying their consent.

Furthermore, the data analysis process in SmartPLS involves two primary phases for assessing the research model: the measurement model assessment and the structural model assessment. The measurement model is analyzed. On the other hand, the structural model assessment focuses on evaluating the research framework that explains the impact of independent variables on dependent variables. Table 1 outlines the detailed data analysis plan while the criteria has been mentioned together with the findings.

Table 1: Data analysis plan

Assessment	Purpose	Analysis Test
Demographic profile of respondents	To achieve knowledge about the population of this study	Frequency and percentage
To evaluate the distribution of data for normality	To determine whether the data is symmetrically distributed	Skewness and Kurtosis
To assess the validity of the measurement model by examining the relationships between observed variables and their underlying latent constructs	To confirm whether the hypothesized factor structure fits the observed data, ensuring that measurement items represent the constructs accurately.	Confirmatory factor analysis
Assess discrimination validity between constructs	To check whether constructs that are theoretically distinct are indeed different in practice.	Heterotrait-Monotrait ratio
Detect multicollinearity among independent variables in regression analysis	Implementing independent variables are highly correlated, which can distort regression results.	Variance Inflation Factor and Tolerance values
Test relationships between variables or the effect of one variable on another	To evaluate whether the proposed hypotheses are supported or rejected, contributing to answering the research objectives.	Hypothesis testing

4. Findings

In table 2, the survey was voluntarily completed by 384 respondents, and the results are presented.

Table 2: Demographic profile of respondents

Characteristics		Frequency (N=384)	Percentage (%)
Gender	Male	215	56
	Female	169	44
Age (in years)	18-30	118	30.7
	31-40	178	46.4
	41-50	75	19.5
	50 and above	13	3.4
Marital Status	Single	179	46.6
	Married	205	53.4
Highest academic qualification	Senior high school	148	38.5
	Bachelor's degree	202	52.6
	Master's degree or above	34	8.8
Job position	Managerial position	14	3.6
	Technical Position	25	6.5
	Skilled Position	8	2.1

Others	337	87.8

In table 3, the Structural Equation Modelling tool (SmartPLS), Skewness and Kurtosis are used to evaluate the normality of the data. Although SmartPLS uses variased-based partial least squares (PLS-SEM), which does not strictly require a normal distribution of data, understanding skewness and kurtosis can still be helpful in interpreting model results and data distribution. One of the requirements for regression analysis is data normality. Scholar emphasizes that normally distributed data is more suitable for prediction and analysis of large sample studies (Shmueli et al., 2019). In this study, the normality is tested by the kurtosis and skewness values. Based on scholar standards, the data is approximately normal, as the absolute kurtosis value is below 10 and the absolute skewness value is under 3. The data in this study meet the standard, indicating that the data used are normally distributed.

Table 3: Skewness and Kurtosis

Items	skewness	kurtosis	Iteams	skewness	kurtosis
PT1	0.139	-0.697	PEU1	0.721	0.739
PT2	0.547	0.011	PEU2	0.438	-0.178
PT3	-0.091	-0.924	PEU3	0.316	-0.749
PC1	0.232	-1.049	AT1	0.046	-0.377
PC2	0.054	-1.516	AT2	-0.257	-1.246
PC3	0.083	-0.723	AT3	0.071	-0.735
PU1	0.405	-0.833	AT4	0.496	0.285
PU2	0.196	-0.809	BI1	1.16	2.153
PU3	0.174	-0.969	BI2	0.402	0.13
PU4	0.257	-0.894	BI3	0.526	-0.638

As illustrated in Table 4, the objective of measurement model assessment is to verify that the measurement items and constructs meet the criteria for internal consistency reliability, construct validity, indicator reliability, and discriminant validity (Ramayah et al., 2018). all items achieved factor loadings of at least 0.708 on their respective constructs, demonstrating that these items possess strong loading levels and are not unidimensional. The composite reliability (CR) values for the constructs ranged from 0.825 to 0.947, which aligns with the acceptable range of 0.60 to 0.95, indicating a reliable level of internal consistency (Hair et al., 2019). Furthermore, the lowest convergent validity value—measured by average variance extracted (AVE)—was found to be 0.795, significantly exceeding the threshold of 0.50; thus, confirming that the model satisfies the requirements for convergent validity.

Table 4: Confirmatory factor analysis

Constructs	Items	Loadings	CR	AVE
Attitude to use Alipay	AT1	0.905	0.951	0.828
	AT2	0.923		
	AT3	0.922		
	AT4	0.889		
Consumers' Behavioral Intention	BI1	0.927	0.944	0.848
	BI2	0.925		
	BI3	0.911		
Perceived Compatibility	PC1	0.908	0.94	0.839
	PC2	0.925		
	PC3	0.915		

Perceived Ease of Use	PEU1	0.909	0.938	0.834
	PEU2	0.92		
	PEU3	0.911		
Perceived Trust	PT1	0.877	0.921	0.795
	PT2	0.916		
	PT3	0.881		
Perceived Usefulness	PU1	0.919	0.952	0.831
	PU2	0.918		
	PU3	0.919		
	PU4	0.89		

As presented in Table 5, This study utilized the Heterotrait-Monotrait (HTMT) criterion to evaluate discriminant validity (Henseler et al., 2015; Franke & Sarstedt, 2019). According to a more stringent standard, HTMT values should remain below 0.85, while a more lenient threshold suggests that values should not exceed 0.90 (Oke et al., 2019). all HTMT values—except for one—are below the stricter cutoff of 0.85. The highest recorded HTMT value is 0.894, which still falls within the more lenient limit of 0.90. Consequently, it can be concluded that respondents were able to effectively distinguish among the eight constructs. Based on the outcomes of the validity assessments, the measurement items employed in this study are deemed valid and reliable.

Table 5: Heterotrait-Monotrait ratio

	AT	BI	PC	PEU	PT	PU
Attitude to use Alipay						
Consumers' Behavioral Intention	0.765					
Perceived Compatibility	0.826	0.76				
Perceived Ease of Use	0.732	0.765	0.829			
Perceived Trust	0.768	0.793	0.659	0.719		

Researchers implement appropriate measures to identify and address the issue of multicollinearity in order to ensure the robustness of their models. Lower Tolerance values and higher Variance Inflation Factor (VIF) values may signify the presence of significant collinearity. Specifically, Tolerance values below 0.20 or VIF values exceeding 5 typically indicate a potential multicollinearity concern. In this analysis, Table 6 demonstrates that all structures exhibit Tolerance values greater than 0.20, while VIF values remain below 5. This indicates an absence of multicollinearity within the model, allowing each variable to contribute unique information for predicting the dependent variable effectively. Consequently, the model is deemed robust, with minimal risk of multicollinearity adversely affecting regression outcomes.

Table 6: Variance Inflation Factor and Tolerance values

Items	VIF	T
AT1	3.879	0.258
AT2	2.869	0.349
AT3	2.85	0.351
AT4	2.294	0.436
BI1	1.455	0.687
BI2	1.706	0.586
BI3	1.631	0.613
PC1	3.464	0.289

PC2	4.399	0.227
PC3	2.043	0.489
PEU1	3.064	0.326
PEU2	3.617	0.276
PEU3	3.692	0.271
PT1	3.36	0.298
PT2	3.747	0.267
PT3	2.366	0.423
PU1	2.196	0.455
PU2	2.543	0.393
PU3	3.871	0.258
PU4	3.686	0.271

Regarding the structural model, according to Table 7, the following can be observed in the study: Perceived Usefulness → Consumers' Behavioral Intention is significant (P-value = 0.016), meaning that perceived usefulness has a significant positive impact on consumers' behavioral intention. Perceived Ease of Use → Consumers' Behavioral Intention is not significant. (P-value = 0.773), suggesting that perceived ease of use does not have a significant impact on consumers' behavioral intention. Perceived usefulness → The attitude towards using Alipay is significant (P = 0.000). Perceived ease of use → The attitude of using Alipay is significant (P = 0.019). Perceived trust → Behavioral willingness to use Alipay is significant (P = 0.019). Perceived trust → attitude towards using Alipay is significant (P = 0.005), perceived compatibility → behavioral willingness to use Alipay is significant (P = 0.006). Perceived trust → The attitude of using Alipay is significant (P = 0.037). Usage attitude → Behavioral willingness to use Alipay is significant (P = 0.000).

Table 7: Hypothesis testing

No.	Path	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values	Result
H1	Perceived Usefulness→Attitude to use Alipay	0.297	0.298	0.071	4.153	0.000**	Supported
H2	Perceived Usefulness→Consumers' Behavioral Intention	0.091	0.091	0.037	2.459	0.016*	Supported
H3	Perceived Ease of Use→Attitude to use Alipay	0.44	0.438	0.086	5.14	0.000**	Supported
H4	Perceived Ease of Use→Consumers' Behavioral Intention	-0.022	-0.017	0.076	0.289	0.773	Not Supported
H5	Perceived Trust→Attitude to use Alipay	0.095	0.091	0.033	2.879	0.005**	Supported
H6	Perceived Trust→Consumers' Behavioral Intention	0.1	0.104	0.042	2.381	0.019*	Supported
H7	Perceived Compatibility→Attitude to use Alipay	0.074	0.074	0.035	2.114	0.037*	Supported
H8	Perceived Compatibility→Consumers' Behavioral Intention	0.188	0.181	0.068	2.765	0.006**	Supported
H9	Attitude to use Alipay→Consumers' Behavioral Intention	0.639	0.634	0.08	8.036	0.000**	Supported

5. Discussion and Conclusion

This article explores the determinants of behavioral intention to use Alipay among Chinese consumers, focusing on the impact of factors such as perceived trust, perceived compatibility, perceived usefulness, and perceived ease of use on consumer attitudes and behavioral intentions. The discussion and conclusion section of the paper analyzes the role and impact of these factors in depth, providing new insights for related research in the field of mobile payment.

The study shows that perceived trust, perceived compatibility and perceived usefulness have a significant positive impact on consumer attitudes and behavioral intentions. That is, when consumers trust Alipay, perceive it to be compatible with their lifestyles, and feel useful in their daily use, they are more likely to continue using the platform. Specifically, increased trust helps eliminate consumers' concerns about third-party payments, especially when dealing with personal financial information. In terms of compatibility, Alipay's versatility and its seamless integration into users' daily lives prompts users to feel that it is an indispensable payment tool. Usefulness, on the other hand, refers to the fact that consumers feel that using Alipay improves the convenience of their lives, such as a faster payment experience and simpler financial management, all of which further drive consumers' intention to use it.

Surprisingly, however, perceived ease of use did not have a significant impact on consumers' behavioral intentions. The study suggests that this may be due to the fact that Alipay users already generally recognize the platform's ease of use as having a high level of satisfaction. Alipay has become one of the most popular third-party payment platforms in China, and its simplicity has become such an intrinsic quality that users no longer perceive ease of use as a key factor in their continued use of the platform.

The study reveals that enhancing users' trust in the platform, ensuring it is highly compatible with their lifestyles, and providing tangible value for use are key to boosting Alipay's user growth. This suggests that while ease of use is also an important consideration, their impact on user behavior is likely to be felt more in the early rollout stages of the platform, whereas trust, compatibility and usefulness become the main drivers of continued usage when the platform is already mature. Ease of use has relatively little marginal impact in mature markets. For platforms such as Alipay that are already widely popular, users recognize ease of use to a high degree, so this factor is no longer a key driver in determining user behavior. In the future, Alipay and similar platforms can focus more on improving user experience, increasing the compatibility of platform functions, and reinforcing the value of using the platform to further enhance user stickiness.

Finally, this study provides important theoretical and empirical support for the mobile payment industry and related companies. Mobile payment platforms such as Alipay can attract more users by enhancing user trust, optimizing platform compatibility, and improving platform utility. At the same time, by improving user attitudes, platforms can also effectively increase user stickiness and loyalty. Future strategy development should focus on enhancing user experience rather than being limited to technical optimization. This study can provide practitioners with specific marketing strategies and ideas related to mobile payment.

Ethics Approval and Consent to Participate

The researchers used the research ethics provided by the Research Ethics Committee of Universiti Teknologi MARA (UiTM). All procedures performed in this study involving human participants were conducted in accordance with the ethical standards of the institutional research committee. Informed consent was obtained from all participants according to the Declaration of Helsinki.

Acknowledgement

Part of this article was extracted from a doctoral thesis submitted to Universiti Teknologi MARA.

Funding

This study received no funding.

Conflict of Interest

The authors reported no conflicts of interest for this work and declare that there is no potential conflict of interest with respect to the research, authorship, or publication of this article.

References

Ajzen, I. (2020). The theory of planned behavior: Frequently asked questions. *Human Behavior and Emerging Technologies, 2*(4), 314–324.

Ajzen, I., & Driver, B. L. (1991). Prediction of leisure participation from behavioral, normative, and control beliefs: An application of the theory of planned behavior. *Leisure Sciences, 13*(3), 185–204.

Ajzen, I., & Fishbein, M. (1975). A Bayesian analysis of attribution processes. *Psychological Bulletin, 82*(2), 261–277.

Apau, R., & Koranteng, F. N. (2019). Impact of cybercrime and trust on the use of e-commerce technologies: An application of the theory of planned behavior. *International Journal of Cyber Criminology, 13*(2), 228–245.

Aslam, W., Ham, M., & Arif, I. (2017). Consumer behavioral intentions towards mobile payment services: An empirical analysis in Pakistan. *Trziste = Market, 29*(2), 161–176.

Bhattacherjee, A. (2001). Understanding information systems continuance: An expectation-confirmation model. *MIS Quarterly, 25*(3), 351–370.

Chan, S. H., & Lay, Y. F. (2021). Effects of attitude, self-efficacy beliefs, and motivation on behavioural intention in teaching science. *Eurasian Journal of Educational Research, 93*, 219–262.

Cimperman, M., Brenčič, M. M., & Trkman, P. (2016). Analyzing older users' home telehealth services acceptance behavior—Applying an extended UTAUT model. *International Journal of Medical Informatics, 90*, 22–31.

Davis, F. D. (1989a). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly, 13*(3), 319–340.

Davis, F. D. (1989b). Technology acceptance model: TAM. In M. N. Al-Suqri & A. S. Al-Aufi (Eds.), *Information Seeking Behavior and Technology Adoption* (pp. 205–219). Emerald Publishing.

Dewan, S. G., & Chen, L. D. (2005). Mobile payment adoption in the US: A cross-industry, cross-platform solution. *Journal of Information Privacy and Security, 1*(2), 4–28.

Doney, P. M., & Cannon, J. P. (1997). An examination of the nature of trust in buyer–seller relationships. *Journal of Marketing, 61*(2), 35–51.

Franke, G., & Sarstedt, M. (2019). Heuristics versus statistics in discriminant validity testing: A comparison of four procedures. *Internet Research, 29*(3), 430–447.

Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in online shopping: An integrated model. *MIS Quarterly, 27*(1), 51–90.

Hair, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review, 26*(2), 106–121.

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review, 31*(1), 2–24.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science, 43*(1), 115–135.

Jawad, A. I., Parvin, T., & Hosain, M. S. (2022). Intention to adopt mobile-based online payment platforms in three Asian countries: An application of the extended Technology Acceptance Model. *Journal of Contemporary Marketing Science, 5*(1), 92–113.

Obaid, T. (2021). Predicting mobile banking adoption: An integration of TAM and TPB with trust and perceived risk. *SSRN Electronic Journal.*

Oke, J., Akinkunmi, W. B., & Etebefia, S. O. (2019). Use of correlation, tolerance, and variance inflation factor for multicollinearity test. *Global Scientific Journals, 7*(5), 652–659.

Oliveira, T., Thomas, M., Baptista, G., & Campos, F. (2016). Mobile payment: Understanding the determinants of customer adoption and intention to recommend the technology. *Computers in Human Behavior, 61,* 404–414.

Ooi, K. B., & Tan, G. W. H. (2016). Mobile technology acceptance model: An investigation using mobile users to explore smartphone credit card. *Expert Systems with Applications, 59,* 33–46.h

Payment and Clearing Association of China. (2023). *2023 Mobile Payment User Usage Survey Report.* Retrieved from https://www.mpaypass.com.cn/news/202404/20183720.html

Plouffe, C. R., Hulland, J. S., & Vandenbosch, M. (2001). Richness versus parsimony in modeling technology adoption decisions—Understanding merchant adoption of a smart card-based payment system. *Information Systems Research, 12*(2), 208–222.

Rahmawati, H. R., Hudayah, S., Riyadi, S. S., & Hariyadi, S. (2022). Does self-efficacy affect intention to use of e-wallet in Generations Y and Z? *Journal of Research and Opinion, 9*(6), 3136–3140.

Ramayah, T., Cheah, J., Chuah, F., Ting, H., & Memon, M. A. (2018). *Partial least squares structural equation modeling (PLS-SEM) using SmartPLS 3.0: An updated guide and practical guide to statistical analysis.* Pearson.

Ramos-de-Luna, I., Montoro-Ríos, F., & Liébana-Cabanillas, F. (2016). Determinants of the intention to use NFC technology as a payment system: An acceptance model approach. *Information Systems and E-Business Management, 14*(2), 293–314.

Reinartz, W., Haenlein, M., & Henseler, J. (2009). An empirical comparison of the efficacy of covariance-based and variance-based SEM. *International Journal of Research in Marketing, 26*(4), 332–344.

Schierz, P. G., Schilke, O., & Wirtz, B. W. (2010). Understanding consumer acceptance of mobile payment services: An empirical analysis. *Electronic Commerce Research and Applications, 9*(3), 209–216.

Senali, M. G., Iranmanesh, M., Ismail, F. N., Rahim, N. F. A., Khoshkam, M., & Mirzaei, M. (2023). Determinants of intention to use e-wallet: Personal innovativeness and propensity to trust as moderators. *International Journal of Human–Computer Interaction, 39*(12), 2361–2373.

Shmueli, G., Sarstedt, M., Hair, J. F., Cheah, J. H., Ting, H., Vaithilingam, S., & Ringle, C. M. (2019). Predictive model assessment in PLS-SEM: Guidelines for using PLSpredict. *European Journal of Marketing, 53*(11), 2322–2347.

Van der Heijden, H., & Verhagen, T. (2004). Online store image: Conceptual foundations and empirical measurement. *Information & Management, 41*(5), 609–617.

Wiese, M., & Humbani, M. (2020). Exploring technology readiness for mobile payment app users. *The International Review of Retail, Distribution and Consumer Research, 30*(2), 123–142.

Yang, H. D., & Yoo, Y. (2004). It's all about attitude: Revisiting the technology acceptance model. *Decision Support Systems, 38*(1), 19–31.

Yuen, K. F., Cai, L., Qi, G., & Wang, X. (2021). Factors influencing autonomous vehicle adoption: An application of the technology acceptance model and innovation diffusion theory. *Technology Analysis & Strategic Management, 33*(5), 505–519.