Unveiling Mobile Wallet Adoption: Exploring UTAUT's Influence on Behavioral Intentions

Dr.Thilagaraj.A*, Janani V, Dr. Prem Anand B, Dr. Fredrick Jorgenson C, Dr. M. Sankaran

[1][2][3][4][5]Department of Commerce, Faculty of Science and Humanities, SRM Institute of Science and Technology, Kattankulathur, Chengalpattu, Chennai, Tamil Nadu-603203.

KEYWORDS

Smartphones, Digital payments, UTAUT, Cashless society

ABSTRACT

In today's world, smartphones have become the most important part of life. It has changed the lifestyles of many people. In recent times, the usage of smartphones has increased dramatically as it offers various benefits to its users. The rapid evolution of digital payment technologies has propelled the emergence of mobile wallets as a convenient and potentially transformative means of financial transactions. The current research focuses on analyzing the effects of UTAUT on users' behavioral intentions for using Mobile wallet technology. In this empirical study, the main concepts of the UTAUT model are explained. Adopting the UTAUT framework, the survey evaluates important factors that influence users' intentions to adopt mobile wallets. This study uses survey data from 110 Internet users, which will be examined using regression, correlation, and weighted mean analysis. This research revealed positive significant correlation between intention and performance expectations, effort expectations, social norms, and privacy. However, it was also found that performance expectation, effort expectation and privacy of personal information had a significant positive influence on behavioral intention.

1. Introduction

The development and advancement in technology have made smartphones a predominant part of our lives. Smartphone user interactions have grown tremendously as a result of the many advantages offered by smartphones. People use smartphones for both personal and professional purposes, and they are becoming nearly essential in today's world. The advent of mobile wallet technology has revolutionized the landscape of financial transactions, offering users a convenient and efficient means of conducting payments and managing finances through digital platforms. As mobile wallets continue to gain prominence in the realm of digital payment systems, understanding the factors influencing users' behavioral intentions towards their adoption becomes paramount. This study delves into the intricate interplay between user perceptions, behavioral intentions, and the influential determinants shaping the adoption of mobile wallets, utilizing the comprehensive framework of the Unified Theory of Acceptance. UTAUT provides a robust lens through which to examine the critical facets influencing individuals' inclinations to adopt and integrate mobile wallet technology into their financial routines. The current study utilizes UTAUT and extends the model with privacy factors. To provide constructive support for an extension of a portion of the UTAUT, this research aimed to arrive at the exact measure of the factors influencing the main construct of the UTAUT when external environment is unfamiliar.

2. Literature Review

In Based on the researchers' extended UTAUT model, performance expectancy remains the strongest predictor of behavioral intention to use any technology as postulated. Ease of use has an important influence because due to effort expectancy, users anticipate that it will be easy to interact with new technologies, systems or applications. Social influence plays a major role in the adoption process, especially the peer influence; with collectivist culture dominating the adoption process. Moreover, adoption requires enabling factors, which include smartphone ownership or Internet connection reliability but excluding unreliable networks or lack of effective usage due to limited digital literacy **((Taiwo & Downe, 2013)**. Another facilitator that has a positive impact on behavioral intentions is system trust, more specifically trust towards data protection and data **security (Gefen et al.,**

2003).Nevertheless, there are still some blank spaces: demographic factors, psychological factors such as the fear of fraud, and the theory of resistance to change remain rather insufficiently explored in the context of electronic banking adoption **(Riquelme & Rios, 2010)**. It is possible that filling these gaps might provide a more profound understanding of mobile wallet adoption beyond the UTAUT model

(Ly et al., 2022) concentrated on Millennials and Zillennials residing in Ho Chi Minh City and examined a continuation usage in COVID-19 through factors. The results demonstrate that all the determinants had positive associations, as expected. Even though the statistical significance is not acceptable, effort expectancy and social impact nonetheless reflect the existing situation. Additionally, because of the direct favorable impacts of these two variables on behavioral intention, more research was conducted after the pandemic to accurately assess their relevance.

(PHAN et al., 2020) investigated the effects of security on privacy under the framework of the Theory of Perceived Risk which stemmed from the concepts of the UTAUT. The study established that performance expectancy and social influence was strong predictors of behavioral intention to make payments using e-wallets. In addition, the antecedent variables of behavioral intention, namely security and privacy & effort expectancy are insignificant values. However, the behavior in targeted use of electrical wallets partially depends on the aspect of facilitating conditions.

(Zhang & Mao, 2020) examine the impact of consumers' characteristics on their behavioral intention to use mobile payments. The findings revealed that all three antecedents had a substantial impact on the intention of individual consumers to use NFC mobile payments and they offer adequate explanation power.

(Abrahão et al., 2016) evaluated with the help of the UTAUT, the future intention of Brazilian mobile phone users to accept the future mobile payment service. Thus, this finding helps players in the payments industry to know how to design a mobile payment service that would meet the customer needs and expectations of today's mobile phone users while delivering high-performance outcomes, and a user-friendly, secure, socially related affordable circle at a lower cost. Also, it fulfills the role of an impulse to launch marketing and communication strategies that would draw focus to these beneficial characteristics and compel as many people as possible to use this specific service.

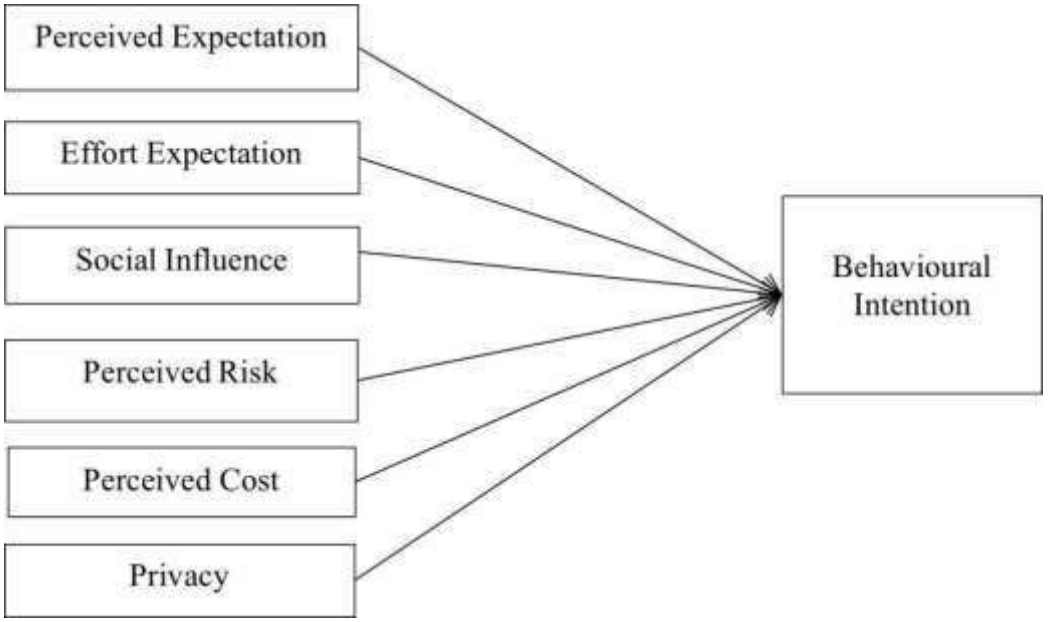
Need For The Study:

Mobile wallets are storming the market and evolving into unique means of performing many financial operations due to the relatively fast advancement of digital payments. In the constantly changing world of digital payments, it also offers insightful information to stakeholders who want to maximize mobile wallet offerings and encourage their broad adoption. It is essential to understand the factors that impact users' adoption of this technology given the dynamic nature of digital payments. The UTAUT model has demonstrated efficacy in comprehending users' adoption and satisfaction with diverse technologies. By using this all-inclusive framework to analyze mobile wallet adoption, one can gain a comprehensive understanding of the fundamental factors affecting user behavior. Due to their convenient and easily accessible financial services, mobile wallets have the potential to further financial inclusion. Studying user intentions helps identify barriers and opportunities for extending financial services to underserved populations.

OBJECTIVES

- To investigate various factors that influence the intention to adopt mobile wallets
- To examine the relationships between the various components which influence people's intentions to use mobile wallets.
- To examine the causal relationships that impact mobile wallet adoption.

RESEARCH MODEL:



Source: (PHAN et al., 2020)

3. Methodology

This analytical study, with an empirical approach, began with a literature review sourced from magazines and journals. A structured and standardized questionnaire was used to gather primary data from 110 internet users in Chennai, selected through Purposive Sampling. The questionnaires were distributed via Google Forms. SPSS was employed for regression analysis, weighted mean, and Karl Pearson correlation. Reliability and validity tests were conducted with satisfactory outcomes, and the overall reliability score of the questionnaire, as measured by Cronbach's Alpha, was 0.901.

4. Results and Discussion

Since demographic profiles are fundamental qualities of the respondents, they are essential in evaluating the respondents who are to be surveyed. As part of assessing the characteristics of the study, some of the following variable related to the study has been used in this study Gender, Age of the respondents, and educational qualification of respondents. The classification of the respondents based on the various categories of demographic variables have been listed below in Table no:1

Table 1 Demographic profile

Demographic variables	Category	Frequency (N=110)	Percentage (100%)
Gender	Male	42	38.2
	Female	**68**	**61.8**
Age	17-20 years	27	24.5
	21-24 years	**70**	**63.6**
	25-28 years	13	11.9
Educational qualifications	**Undergraduate**	**60**	**54.5**
	Postgraduate	47	42.7
	Others	03	2.8

Source: Primary Data

The data relating to the demographic profile of the respondents as depicted in the above Table No.1 explains the following. It can be deduced that, in terms of gender, the majority of respondents (61.8%) are female, and the rest of them (37.2%) are male. Concerning Age, it can be inferred that, the majority

(63.6%) of the respondents are 21-24 years, 24.5% of the respondents are 17-20 years and 11.9% of the respondents belong to the age category 25-28 years. Concerning Educational Qualification, it can be inferred that, the majority (54.5%) of the respondents are Under Graduates, 42.7% of the respondents belong to the category Post Graduates. 2.8% of the respondents belong to the category Others.

The analysis's next part utilizes a weighted mean to identify the different aspects of mobile wallets. All of the statements have been assessed using a Likert scale, with all possibilities being "Strongly Agree" (five points) to "Strongly Disagree" (one point). The weighted mean score for each statement is computed and presented in Table 2 as follows.

Table 2 Overall weighted mean scores of Factors of mobile wallets and behavioral intention

S.No	Factors	Weighted mean
1	**Performance Expectation**	**4.25**
2	Effort Expectancy	4.16
3	Social Influence	3.97
4	Perceived Risk	3.39
5	Perceived Cost	3.37
6	Privacy	3.77
7	Behavioral Intention	3.89

Source: Primary Dat

Table 2 displays the weighted mean scores for the factors of the study and behavioral intention. It indicates that all of the statements measuring the factors had weighted mean scores that were greater than 3. This suggests that all of the factors influencing the behavioral intention to adopt e-wallets have been moderately agreed upon by the respondents.

The analysis following utilizes correlation analysis to examine the relationships between the different parts of mobile wallets.

CORRELATION:

The relationship amongst the Factors of the Study, the Hypotheses framed and tested include Hypothesis (H1-H6 focused on the link between Factors of mobile wallets and Behavioral Intention it shows high correlation among them.

Table 3 Relationship between Factors of mobile wallets and behavioral intention

Factors	“r value”
Performance Expectation	0.575**
Effort Expectancy	0.553**
Social Influence	0.468**
Perceived risk	0.155
Perceived Cost	0.128
Privacy	0.517**

Sources: Primary data

Note: **Correlation is significant at the 0.01 level (2-tailed)

From the table above we can also note the positive result for Performance Expectancy, Effort Expectancy, Social Influence and Privacy variables showing a positive result at 1% significant level, all these has got a very high correlation with Behavioral Intention ($p < 0.01$). Therefore, the research

hypothesis postulated in this study (H1, H2, H3 & H6) holds true. This means that users believe that mobile wallets are easy to understand, and it is the most convenient way for them to perform transactions easily and quickly as it is easily accessible, large number of users will actively engage with the mobile wallets which further increases their intention to adopt a particular service.

Regression analysis is used in the next phase of the analysis to ascertain the influence of the study's variables.

REGRESSION

Impact of Factors of Mobile Wallets on Behavioral Intention

Hypothesis H7-H12: There is a significant impact of Factors of mobile wallets on Behavioral intention

Table 4 Showing Regression Analysis of Factors Of Mobile Wallets.

Model	**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
	B	**Std. Error**	**Beta**		
(Constant)	-0.715	0.487		-1.468	0.145
PE	0.360	0.119	0.293	3.034	0.003**
EE	0.307	0.131	0.238	2.338	0.021*
SI	0.057	0.112	0.049	0.509	0.612
PR	-0.026	0.095	-0.030	-0.279	0.781
PC	0.014	0.102	0.015	0.137	0.891
PRINT	0.429	0.105	0.351	4.072	0.000**
R-Value	0.708				
R2	0.501				
F value	17.254				
P value	0.000				

Source: Primary data

Dependent variable: Behavioral intention Note: **Denotes significant at 1%

level *Denotes significance at 5% level

From Table 4, we can easily assume from the multiple correlation coefficient (Multiple R) value of 0.708 that the relationship between the Factors of Mobile wallets and Behavioral intention is strongly positive.

From the analysis, R2= 0.501 meaning that the factors of mobile wallets can explain 50.1% of the variance in Behavioral intention.

The Regression Equation is Y, Behavioral intention = -0.715 Constant + 0.360 Performance Expectation + 0.307 Effort Expectancy + 0.057 Social Influence - 0.026 Perceived Risk + 0.014 Perceived Cost + 0.429 Privacy.

It can be inferred that Since $p < 0.01$, it can be concluded that privacy and performance expectations had a significant positive impact on behavioral intention at the 1% level of significance. As a result, the hypothesis (H7 & H12) is accepted. Additionally, it was discovered that at the 5% level of significance because $p < 0.05$, Effort Expectancy significantly positively impacted Behavioral Intention. This results in the acceptance of the hypothesis (H8). Therefore, there is a significant impact of Performance Expectation, Effort Expectancy, and privacy on behavior intention. Privacy has the biggest influence on behavioral intention to use a mobile wallet out of all the factors, followed by perceived cost, performance expectation, effort expectation, and social influence. This indicates that since people are very engaged in using mobile wallets, it captures the attention of the audience and

enhances their interest in knowing more about the services.

Limitations of the Study

- Only youthful internet and mobile payment users are included in the study.
- The sample size used for the study is small hence, the results cannot be taken as universal
- Questionnaire limitations apply to the study's outcome.

5. Conclusion and future scope

To generalize the environment of online payment and facilitate research carried out regarding the management of the technology environment of online payment, the study proposes the implementation of the UTAUT model. Research questions directed to the understanding of the perceptions of customers to the mobile wallet and how the model UTAUT influences the adoption of the mobile wallet decision of customers. This test also showed that indeed the Likelihood Factors such as Performance Expectation, Effort Expectancy, and social influence do have a close relationship with the level of privacy and very highly have a significant impact on the level of behavioral intention. This study also confirms how performance expectations, effort expectations, and privacy affect behavioral intention is a measure of organizational performance. Thus, the findings of the present research in terms of factors influencing mobile wallet usage practices can guide financial institutions in building effective relationships with mobile wallet users. Using the UTAUT model, customers' behavioral intentions toward mobile wallet usage will be enhanced.

Reference

R. Arun, M. Umamaheswari, K. Premalatha, M. V. Kumar, A. Stella and S. Pl, "Stress Management Through Workplace Associations with Productivity and Mood: The Impact of Learning Experience Based on Hybrid RF-GA-DNN Approach," 2024 International Conference on Electronics, Computing, Communication and Control Technology (ICECCC), Bengaluru, India, 2024, pp. 1-6, doi: 10.1109/ICECCC61767.2024.10593908

[1] Abrahão, R. de S., Moriguchi, S. N., & Andrade, D. F. (2016). Intention of adoption of mobile payment: An analysis in the light of the Unified Theory of Acceptance and Use of Technology (UTAUT). *RAI Revista de Administração e Inovação*, *13*(3), 221–230. https://doi.org/10.1016/j.rai.2016.06.003

[2] Gefen, D., Karahanna, E., & Straub, D. W. (2003). Inexperience and experience with online stores: The importance of TAM and trust. *IEEE Transactions on Engineering Management*, *50*(3), 307–321. https://doi.org/10.1109/TEM.2003.817277

[3] Ly, H. T. N., Khuong, N. V., & Son, T. H. (2022). Determinants Affect Mobile Wallet Continuous Usage in Covid 19 Pandemic: Evidence From Vietnam. *Cogent Business and Management*, *9*(1). https://doi.org/10.1080/23311975.2022.2041792

[4] Arumugam, T., Arun, R., Natarajan, S., Thoti, K. K., Shanthi, P., & Kommuri, U. K. (2024). Unlocking the Power of Artificial Intelligence and Machine Learning in Transforming Marketing as We Know It. In S. Singh, S. Rajest, S. Hadoussa, A. Obaid, & R. Regin (Eds.), Data-Driven Intelligent Business Sustainability (pp. 60-74). IGI Global. https://doi.org/10.4018/979-8-3693-0049-7.ch005

[5] PHAN, T. N., HO, T. V., & LE-HOANG, P. V. (2020). Factors Affecting the Behavioral Intention and Behavior of Using E–Wallets of Youth in Vietnam. *The Journal of Asian Finance, Economics and Business*, *7*(10), 295–302. https://doi.org/10.13106/jafeb.2020.vol7.n10.295

[6] Riquelme, H. E., & Rios, R. E. (2010). The moderating effect of gender in the adoption of mobile banking. *International Journal of Bank Marketing*, *28*(5), 328–341. https://doi.org/10.1108/02652321011064872

[7] Arun, R., et al. "From Data to Decisions on Artificial Intelligence's Influence on Digital Marketing Research." Optimizing Intelligent Systems for Cross-Industry Application, edited by S. Suman Rajest, et al., IGI Global, 2024, pp. 1-18. https://doi.org/10.4018/979-8-3693-8659-0.ch001

[8] Taiwo, A. A., & Downe, A. G. (2013). The theory of user acceptance and use of technology (UTAUT): A meta-analytic review of empirical findings. *Journal of Theoretical and Applied Information Technology*, *49*(1), 48–58.

[9] Arun R, and Bhuvaneswari R (2019). Buying behavior of meet's consumption relates to food safety from north and south part of the Coimbatore City. International Journal of Recent Technology and Engineering, 7, 429-433. https://www.ijrte.org/wp-content/uploads/papers/v7i5s/ES2177017519.pdf

[10] Raju, P., et al. "Next-Generation Management on Exploring AI-Driven Decision Support in Business." Optimizing Intelligent Systems for Cross-Industry Application, edited by S. Suman Rajest, et al., IGI Global, 2024, pp. 61-78. https://doi.org/10.4018/979-8-3693-8659-0.ch004

[11] Zhang, J., & Mao, E. (2020). Cash, credit, or phone? An empirical study on the adoption of mobile payments in the United States. *Psychology and Marketing*, *37*(1), 87–98. https://doi.org/10.1002/mar.21282