USER ACCEPTANCE OF THE SPEEDCASH DIGITAL WALLET USING TAM

Laura Naily Tsabita[1)], Dwi Fatrianto Suyatno[2)]
[1)]Information System, Faculty of Engineering, Universitas Negeri Surabaya, Surabaya, Indonesia
Email: laura.22132@mhs.unesa.ac.id
[2)]Information System, Faculty of Engineering, Universitas Negeri Surabaya, Surabaya, Indonesia
Email: dwifatrianto@unesa.ac.id

Abstract
The rapid growth of digital wallet services highlights the importance of understanding factors influencing user acceptance of financial technology applications. This study aims to analyze the level of technology acceptance of the SpeedCash digital wallet application using the Technology Acceptance Model (TAM). A quantitative approach was employed by distributing questionnaires to SpeedCash users selected through purposive sampling. The variables examined include Perceived Ease of Use (PEOU), Perceived Usefulness (PU), Attitude Toward Using (ATU), Behavioral Intention to Use (BI), and Actual Usage (AU). Data were analyzed using Partial Least Squares–Structural Equation Modeling (PLS-SEM), including validity testing, reliability testing, outer model evaluation, and inner model evaluation. The results indicate that Perceived Ease of Use has a positive and significant effect on both Perceived Usefulness and Attitude Toward Using. Perceived Usefulness also positively influences Attitude Toward Using. Furthermore, Attitude Toward Using positively affects Behavioral Intention to Use, while Behavioral Intention to Use positively affects Actual Usage. The findings demonstrate that perceived ease of use and perceived usefulness are the primary factors shaping users' attitudes, intentions, and actual usage of the SpeedCash application. Therefore, improving service quality through user-friendly features and providing tangible benefits to users can enhance technology acceptance of the SpeedCash digital wallet application.

Keywords: Technology Acceptance Model; Speedcash; Digital Wallet; Technology Acceptance; PLS-SEM

Abstrak
Pesatnya perkembangan layanan dompet digital menunjukkan pentingnya memahami faktor-faktor yang memengaruhi penerimaan pengguna terhadap aplikasi teknologi finansial. Penelitian ini bertujuan untuk menganalisis tingkat penerimaan teknologi pada aplikasi dompet digital SpeedCash menggunakan Technology Acceptance Model (TAM). Penelitian ini menggunakan pendekatan kuantitatif dengan menyebarkan kuesioner kepada pengguna SpeedCash yang dipilih melalui teknik purposive sampling. Variabel yang diteliti meliputi Perceived Ease of Use (PEOU), Perceived Usefulness (PU), Attitude Toward Using (ATU), Behavioral Intention to Use (BI), dan Actual Usage (AU). Data dianalisis menggunakan metode Partial Least Squares–Structural Equation Modeling (PLS-SEM) yang mencakup pengujian validitas, reliabilitas, evaluasi model pengukuran (*outer model*), dan evaluasi model struktural (*inner model*). Hasil penelitian menunjukkan bahwa Perceived Ease of Use berpengaruh positif dan signifikan terhadap Perceived Usefulness dan Attitude Toward Using. Perceived Usefulness juga berpengaruh positif terhadap Attitude Toward Using. Selanjutnya, Attitude Toward Using berpengaruh positif terhadap Behavioral Intention to Use, sedangkan Behavioral Intention to Use berpengaruh positif terhadap Actual Usage. Temuan penelitian ini menunjukkan bahwa persepsi kemudahan penggunaan dan persepsi kegunaan merupakan faktor utama yang membentuk sikap, niat, dan penggunaan aktual pengguna terhadap aplikasi SpeedCash. Oleh karena itu, peningkatan kualitas layanan melalui fitur yang mudah digunakan serta pemberian manfaat yang nyata bagi pengguna dapat meningkatkan tingkat penerimaan teknologi pada aplikasi dompet digital SpeedCash.

Kata Kunci: Technology Acceptance Model (TAM), SpeedCash, Dompet Digital, Penerimaan Teknologi, PLS-SEM.

INTRODUCTION

The rapid advancement of information technology has significantly transformed various aspects of human life, particularly in the financial services sector. Digital transformation has encouraged the development of innovative financial technologies that enable faster, more efficient, and more convenient transactions. One of the most widely adopted innovations is the digital wallet, a mobile-based financial service that allows users to perform payments, money transfers, and other financial transactions electronically. As cashless transactions become increasingly common, digital wallets have become an essential component of modern lifestyles by offering flexibility, convenience, and accessibility in daily financial activities.

In Indonesia, the digital wallet market has experienced substantial growth, driven by increasing internet penetration, smartphone usage, and the expansion of digital payment ecosystems. Several digital wallet providers, such as OVO, DANA, GoPay, and ShopeePay, have successfully established strong market positions through extensive service integration and promotional programs. Alongside these major platforms, SpeedCash has emerged as an alternative digital wallet application that offers various financial services, including balance top-ups, fund transfers, bill payments, and digital product purchases. Despite providing similar functionalities, SpeedCash faces challenges in competing with more established digital wallet providers and attracting long-term user adoption.

A preliminary survey conducted among ten SpeedCash users revealed that most respondents perceived the application as beneficial and easy to use. The primary advantages identified by users included lower transaction fees, attractive promotional offers, cashback programs, and fast transaction processing. Furthermore, the majority of respondents reported that the application interface was simple and easy to understand. However, several respondents indicated that they still preferred other digital wallet applications due to stronger brand recognition, broader market acceptance, and higher levels of trust. These findings suggest that although SpeedCash offers practical benefits, the level of user acceptance and continuous usage remains inconsistent.

Understanding user acceptance is crucial for evaluating the success of a technology-based application. One of the most widely used frameworks for examining technology acceptance is the Technology Acceptance Model (TAM), developed by Davis (1989). TAM explains that user acceptance of a technology is primarily influenced by two key constructs: Perceived Ease of Use (PEOU) and Perceived Usefulness (PU). These perceptions subsequently influence users' attitudes toward technology, behavioral intentions, and actual system usage. The model has been extensively applied in various technology adoption studies, including mobile applications, information systems, and digital financial services.

Several previous studies have confirmed the effectiveness of TAM in explaining technology adoption behavior. Davis (1989) established the theoretical foundation of TAM by demonstrating the influence of perceived usefulness and perceived ease of use on user attitudes and behavioral intentions. Ernawati et al. (2025) found that TAM successfully explained user acceptance of mobile academic applications. Ibrahim et al. (2022) reported that perceived usefulness and perceived ease of use significantly influenced e-wallet adoption among Generation Z users. Similarly, Ardianto and Azizah (2021) identified perceived usefulness as a dominant factor affecting digital wallet usage intentions in Indonesia. Although these studies provide valuable insights, most focus on general digital wallet services or different application contexts. Research specifically investigating user acceptance of the SpeedCash application remains limited.

This limitation indicates a research gap regarding the evaluation of technology acceptance in emerging digital wallet platforms, particularly SpeedCash. Moreover, previous studies have not comprehensively examined all core TAM constructs, including actual usage behavior, within the context of SpeedCash users. Therefore, further investigation is necessary to understand how perceived ease of use, perceived usefulness, attitude toward using, behavioral intention to use, and actual usage interact in shaping user acceptance of the application.

Based on these considerations, this study aims to analyze the level of technology acceptance of the SpeedCash digital wallet application using the Technology Acceptance Model (TAM). The findings are expected to contribute to the existing literature on digital wallet adoption and provide practical insights for developers to improve application features, service quality, and user experience, thereby enhancing long-term user acceptance and engagement.

 ISSN 3063-864X(E)

METHODS

This study employed a quantitative approach to analyze user acceptance of the SpeedCash digital wallet application using the Technology Acceptance Model (TAM). The research model consisted of five constructs: Perceived Ease of Use (PEOU), Perceived Usefulness (PU), Attitude Toward Using (ATU), Behavioral Intention to Use (BI), and Actual Usage (AU). The population included all individuals who had used the SpeedCash application, while the sample was selected using purposive sampling. Respondents were required to have used SpeedCash at least once within the last six months to ensure that they could provide relevant evaluations based on their actual experience.

Data were collected through an online questionnaire distributed via Google Forms. The questionnaire items were developed based on the original TAM framework proposed by Davis (1989) and measured using a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5). Prior to the main survey, a pilot test was conducted to assess the validity and reliability of the instrument. The research process included a literature review, preliminary survey, questionnaire development, data collection, and statistical analysis.

The collected data were analyzed using Partial Least Squares–Structural Equation Modeling (PLS-SEM). The analysis consisted of two stages: evaluation of the measurement model (outer model) and evaluation of the structural model (inner model). The outer model was assessed through convergent validity, discriminant validity, Composite Reliability, and Cronbach's Alpha. Meanwhile, the inner model was evaluated using the coefficient of determination (R^2), path coefficients, and hypothesis testing through the bootstrapping procedure. Hypotheses were considered significant when the t-statistic exceeded 1.96 and the p-value was less than 0.05, indicating significant relationships among the TAM constructs in explaining user acceptance of the SpeedCash application.

RESULTS AND DISCUSSION

1. Respondent Characteristics

Table 1. Respondent Characteristics

Characteristic	Category	Frequency	Percentage (%)
Gender	Male	43	31,9
	Female	92	68,1
Age	< 18 years	19	14,1
	18-21 years	38	28,1
	22-25 years	46	34,1
	26-30 years	18	13,3
	> 30 years	14	10,4
Occupation	Student	72	53,3
	Private Employee	25	18,5
	Entrepreneur	20	14,8
	Others	18	13,4
Usage Frequency	Daily	18	13,3
	Several times a week	45	33,3
	Several times a month	46	34,1
	Used within the last six months	26	19,3
Main Puspose of Use	Balance transfer	84	62,2
	Balance Top-Up	80	59,3
	Bill payment	64	47,4
	QRIS payment	62	45,9
	Mobile credit & data packages	53	39,3

The study involved 135 respondents who had experience using the SpeedCash digital wallet application. As shown in Table 1, female respondents constituted the majority of the sample (68.1%), while male respondents accounted for 31.9%. In terms of age distribution, most respondents were between 22 and 25 years old (34.1%), followed by those aged 18–21 years (28.1%). This finding indicates that the majority of SpeedCash users in this study belonged to the young and productive age group, which is generally more familiar with digital technologies and mobile-based financial services.

Regarding occupation, students represented the largest proportion of respondents (53.3%), followed by private employees (18.5%) and entrepreneurs (14.8%). Most respondents reported using SpeedCash several times per month (34.1%) or several times per week (33.3%), suggesting that they had sufficient experience with the application to evaluate its usefulness and ease of use. Furthermore, the most common purposes of using SpeedCash were balance transfers (62.2%) and balance top-ups (59.3%), indicating that users primarily relied on the application for basic financial transactions. These characteristics suggest that the respondents were active

digital payment users and therefore provided relevant insights for evaluating technology acceptance within the Technology Acceptance Model (TAM) framework.

2. Measurement Model Evaluation (Outer Model)

The measurement model was evaluated to assess the validity and reliability of the constructs used in this study. The evaluation was conducted using the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach in SmartPLS. The assessment focused on convergent validity, construct reliability, and discriminant validity to ensure that the indicators adequately represented their respective latent variables before proceeding to the structural model analysis. Initially, the research instrument consisted of 23 indicators distributed across five constructs: Perceived Usefulness (PU), Perceived Ease of Use (PEOU), Attitude Toward Using (ATU), Behavioral Intention to Use (BI), and Actual Usage (AU). After several rounds of evaluation, 10 indicators with relatively low loading values were removed, resulting in a final model consisting of 13 indicators that met the required measurement criteria.

Convergent validity was assessed using outer loading values. According to the recommended criteria, indicators with loading values greater than 0.70 are considered highly representative of their respective constructs. However, indicators with loadings between 0.60 and 0.70 may still be retained if they remain theoretically relevant and do not reduce the overall quality of the measurement model. After the elimination process, all retained indicators achieved acceptable loading values, indicating that they adequately represented their underlying constructs.

Table 2. Final Outer Loading Values

Construct	Indicator	Outer Loading
ATU	ATU2	0,873
	ATU4	0,860
AU	AU2	0,781
	AU4	0,890
BI	BI1	0,848
	BI3	0,757
	BI5	0,843
PEOU	PEOU1	0,837
	PEOU2	0,662
	PEOU3	0,762
PU	PU1	0,725
	PU3	0,721
	PU4	0,696

As shown in Table 2, most indicators exceeded the recommended threshold of 0.70. Although PEOU2 (0.662) and PU4 (0.696) were slightly below the ideal value, they were retained because their loadings remained within the acceptable range and contributed positively to the overall construct reliability. Therefore, the final measurement model satisfied the requirements for convergent validity.

Construct reliability and validity were evaluated using Cronbach's Alpha, Composite Reliability (CR), and Average Variance Extracted (AVE). A construct is considered reliable when its Composite Reliability exceeds 0.70, while convergent validity is achieved when the AVE value is greater than 0.50. The results of the reliability and validity assessment are presented in Table 3.

Table 3. Reliability and Construct Validity

Construct	Cronbach's Alpha	Composite Reliability	AVE
ATU	0,668	0,857	0,751
AU	0,581	0,824	0,701
BI	0,753	0,857	0,668
PEOU	0,629	0,800	0,573
PU	0,525	0,757	0,510

The results indicate that all constructs achieved Composite Reliability values above 0.70, demonstrating satisfactory internal consistency. Furthermore, all AVE values exceeded the minimum threshold of 0.50, indicating that each construct explained more than 50% of the variance in its indicators. Although several constructs, namely AU, PEOU, and PU, exhibited Cronbach's Alpha values below 0.70, these constructs were still considered reliable because their Composite Reliability values met the recommended standard. In PLS-SEM, Composite Reliability is generally regarded as a more robust measure of internal consistency than Cronbach's Alpha. Consequently, all constructs were deemed reliable and valid for further structural model evaluation.

Overall, the measurement model demonstrated satisfactory psychometric properties. The indicator elimination process improved the quality and stability of the model, resulting in acceptable outer loading values, adequate reliability, and strong convergent validity. Therefore, the final measurement model fulfilled the requirements of PLS-SEM and was considered suitable for subsequent structural model analysis and hypothesis testing.

 ISSN 3063-864X(E)

3. Structural Model Evaluation (Inner Model)

After confirming that the measurement model met the required validity and reliability criteria, the structural model was evaluated to examine the relationships among the latent constructs in the Technology Acceptance Model (TAM). The evaluation focused on the coefficient of determination (R^2), path coefficients, and hypothesis testing using the bootstrapping procedure. The purpose of this analysis was to determine the explanatory power of the model and to assess the significance of the proposed relationships among Perceived Ease of Use (PEOU), Perceived Usefulness (PU), Attitude Toward Using (ATU), Behavioral Intention to Use (BI), and Actual Usage (AU).

The coefficient of determination (R^2) was used to evaluate the predictive accuracy of the structural model. In PLS-SEM, higher R^2 values indicate a greater ability of the exogenous variables to explain the variance of the endogenous variables. The relationships assessed in this study followed the TAM structure, namely PEOU → PU, PEOU and PU → ATU, ATU → BI, and BI → AU.

Table 4. Coefficient of Determination (R^2)

Endogenous Variable	R^2 Value
Perceived Usefulness (PU)	0,621
Attitude Toward Using (ATU)	0,684
Behavioral Intention to Use (BI)	0,711

The R^2 values indicate the extent to which each endogenous construct can be explained by its corresponding antecedent variables. According to commonly accepted PLS-SEM guidelines, R^2 values of 0.75, 0.50, and 0.25 represent substantial, moderate, and weak explanatory power, respectively. Therefore, the obtained R^2 values demonstrate the capability of the TAM model to explain user acceptance and actual usage of the SpeedCash application.

Path coefficient analysis was conducted to determine the direction and strength of the relationships among the constructs. Positive coefficients indicate that an increase in one construct is associated with an increase in another construct. The results revealed positive relationships for all proposed paths, suggesting that greater perceived ease of use and perceived usefulness contribute to more favorable attitudes, stronger behavioral intentions, and higher levels of actual application usage.

Table 5. Path Coefficient Results

Relationship	Path Coefficient
PEOU → PU	0,462
PEOU → ATU	0,392
PU → ATU	0,275
ATU → BI	0,648
BI → AU	0,582

Among the proposed relationships, the strongest effect was observed between Attitude Toward Using and Behavioral Intention to Use ($\beta = 0.648$), followed by Behavioral Intention to Use and Actual Usage ($\beta = 0.582$). These findings indicate that users' attitudes toward the application play an important role in shaping their intention to continue using SpeedCash, which subsequently influences actual usage behavior. The positive coefficients also demonstrate consistency with the theoretical assumptions of TAM.

Hypothesis testing was performed using the bootstrapping procedure in SmartPLS. A relationship was considered significant when the t-statistic exceeded 1.96 and the p-value was below 0.05. The results showed that all proposed hypotheses were supported, indicating significant positive relationships among all TAM constructs in the SpeedCash context.

Table 6. Hypothesis Testing Results

Relationship	T-Statistic	P-Value	Decision
PEOU → PU	7,821	0,000	Supported
PEOU → ATU	5,912	0,000	Supported
PU → ATU	6,445	0,000	Supported
ATU → BI	8,103	0,000	Supported

The findings indicate that Perceived Ease of Use significantly influences both Perceived Usefulness and Attitude Toward Using. Furthermore, Perceived Usefulness significantly affects Attitude Toward Using, while Attitude Toward Using significantly influences Behavioral Intention to Use. Finally, Behavioral Intention to Use has a significant positive effect on Actual Usage. These results confirm that the Technology Acceptance Model effectively explains user acceptance of the SpeedCash digital wallet application. The positive and significant relationships across all constructs suggest that ease of use and perceived benefits are critical factors in encouraging continuous usage of digital financial services.

4. Discussion

The results of this study confirm that the Technology Acceptance Model (TAM) is an effective framework for explaining user acceptance of the SpeedCash digital wallet application. All proposed hypotheses were supported, indicating that users' perceptions of ease of use and usefulness play significant roles in shaping their attitudes, behavioral intentions, and actual usage of the application. These findings are consistent with the fundamental assumptions of TAM, which suggest that technology acceptance is primarily influenced by how easy a system is to use and how beneficial it is perceived to be.

The first finding reveals that Perceived Ease of Use (PEOU) has a positive and significant effect on Perceived Usefulness (PU). This result indicates that users tend to perceive SpeedCash as more useful when the application is easy to understand and operate. Features that are simple to access, a user-friendly interface, and uncomplicated transaction procedures enable users to complete financial activities more efficiently. Consequently, ease of use enhances the perceived benefits of the application. This finding supports the original TAM proposed by Davis (1989), which states that a system requiring less effort is more likely to be perceived as useful by its users.

The study also found that Perceived Ease of Use positively influences Attitude Toward Using (ATU). This result suggests that users develop a more favorable attitude toward SpeedCash when they experience minimal difficulty while using the application. An intuitive design and straightforward navigation reduce the effort required to perform transactions, thereby creating a more positive user experience. As users become more comfortable with the application, they are more likely to develop positive feelings toward its use. This finding aligns with previous studies indicating that ease of use contributes significantly to positive user attitudes toward digital technologies.

Furthermore, Perceived Usefulness (PU) was found to have a positive and significant effect on Attitude Toward Using (ATU). Users who believe that SpeedCash improves the efficiency and convenience of their financial transactions tend to have a more positive attitude toward the application. The ability to conduct various financial activities, such as balance transfers, bill payments, and digital purchases, provides tangible benefits that strengthen users' perceptions of value. As a result, users become more receptive to adopting and utilizing the application in their daily activities. This finding reinforces the TAM assumption that perceived usefulness is a key determinant of user attitude toward technology adoption.

The results also demonstrate that Attitude Toward Using (ATU) significantly affects Behavioral Intention to Use (BI). Users who possess positive attitudes toward SpeedCash are more likely to express a strong intention to continue using the application in the future. A favorable evaluation of the application encourages users to integrate it into their routine financial activities and increases their willingness to recommend it to others. This finding indicates that user attitudes serve as an important psychological factor that bridges perceptions of technology and future usage intentions.

In addition, Behavioral Intention to Use (BI) has a positive and significant effect on Actual Usage (AU). This result confirms that users with stronger intentions to use SpeedCash are more likely to engage in actual application usage. The finding is consistent with TAM and other technology adoption theories, which emphasize behavioral intention as the most immediate predictor of actual behavior. When users perceive a technology positively and intend to use it regularly, these intentions are translated into real usage behavior over time.

Overall, the findings highlight that ease of use and perceived usefulness are the primary drivers of SpeedCash acceptance. These factors influence users' attitudes toward the application, which subsequently shape their intentions and actual usage behavior. From a practical perspective, SpeedCash developers should continue improving application usability, interface simplicity, transaction efficiency, and service reliability to enhance user acceptance. Strengthening these aspects may increase user satisfaction, encourage continued usage, and improve the competitiveness of SpeedCash within Indonesia's rapidly growing digital wallet market. Theoretically, this study contributes to the growing body of literature on digital wallet adoption by providing empirical evidence that supports the applicability of the Technology Acceptance Model in explaining user acceptance of emerging financial technology applications.

CONCLUTION

This study examined user acceptance of the SpeedCash digital wallet application using the Technology Acceptance Model (TAM). The results demonstrated that all proposed relationships among the TAM constructs were positive and significant. Perceived Ease of Use positively influenced both Perceived Usefulness and Attitude Toward

Using, while Perceived Usefulness positively affected Attitude Toward Using. Furthermore, Attitude Toward Using significantly influenced Behavioral Intention to Use, which subsequently affected Actual Usage. These findings indicate that users are more likely to adopt and continuously use the SpeedCash application when they perceive it as easy to use and beneficial for their financial transactions. Therefore, enhancing application usability, service efficiency, and user experience can strengthen user acceptance and encourage sustained usage. The study also confirms the applicability of the Technology Acceptance Model in explaining the adoption behavior of digital wallet users and provides valuable insights for improving the competitiveness of SpeedCash in the digital financial services market.

ACKNOWLEDGEMENTS

The authors would like to express their sincere gratitude to all respondents who participated in this study and provided valuable information regarding their experience with the SpeedCash application. The authors also extend their appreciation to the supervisors, academic staff, and all parties who contributed support, guidance, and encouragement throughout the research process. Their assistance and cooperation were essential to the successful completion of this study.

REFERENCES

Alvin, A., Nastiti, P., & Marsella, E. (2023). Identifikasi faktor loyalitas pengguna pada Shopee Games menggunakan Expectation-Confirmation Model (ECM). *Edu Komputika Journal, 10*(1), 7–14.

Ardianto, K., & Azizah, N. (2021). Analisis minat penggunaan dompet digital dengan pendekatan Technology Acceptance Model (TAM) pada pengguna di Kota Surabaya. *Jurnal Pengembangan Wiraswasta, 23*(1), 13–22.

Arianto, F., Susarno, L. H., Dewi, U., & Safitri, A. F. (2020). Model penerimaan dan pemanfaatan teknologi: E-learning di perguruan tinggi. *Kwangsan: Jurnal Teknologi Pendidikan, 8*(1), 110–121.

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

Ernawati, E., et al. (2025). *Evaluasi penerimaan mahasiswa terhadap aplikasi akademik mobile menggunakan TAM*.

Hossain, M., et al. (2024). Applying the Technology Acceptance Model (TAM) in information technology systems to evaluate the adoption of decision support systems.

Ibrahim, M., et al. (2022). Technology Acceptance Model in e-wallet adoption among Generation Z students.

Lazim, C. S. L. M., Ismail, N. D. B., & Tazilah, M. D. A. K. (2021). Application of Technology Acceptance Model (TAM) towards online learning during Covid-19 pandemic. *International Journal of Business, Economics and Law, 24*(1), 13–20.

Marini, M., & Sarwindah, S. (2017). Analisis model penerimaan teknologi aplikasi BPJS Online. *Jurnal Edukasi dan Penelitian Informatika (JEPIN), 3*(1), 16–21.

Maruf, T. I., Manaf, N. H. B. A., Haque, A. K. M. A., & Maulan, S. B. (2021). Factors affecting attitudes towards using ride-sharing apps. *International Journal of Business, Economics and Law, 25*(2), 52–63.

Ozili, P. K. (2023). *The acceptable R-square in empirical modelling for social science research* (MPRA Paper No. 115769).

Prayoga, N., & Nesya, S. A. (2023). Analisis kepuasan menggunakan aplikasi DANA dengan menerapkan metode Technology Acceptance Model (TAM).