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User Acceptance of the SpeedCash Digital Wallet Using TAM

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ABSTRACT

The rapid development of *financial technology* has increased the use of digital wallets as a practical and efficient payment method. One of the developing digital wallet applications in Indonesia is SpeedCash. This study aims to analyze user acceptance of the SpeedCash digital wallet application using the *Technology Acceptance Model* (TAM). The variables used in this study include *perceived ease of use*, *perceived usefulness*, *attitude toward using*, and *behavioral intention to use*. This research employed a quantitative approach by distributing questionnaires to SpeedCash users. The collected data were analyzed using the *Structural Equation Modeling-Partial Least Square* (SEM-PLS) method. The results indicate that *perceived ease of use* has a positive effect on *perceived usefulness* and *attitude toward using*. In addition, *perceived usefulness* significantly influences users' attitudes toward using the application. The variable *attitude toward using* also has a significant effect on *behavioral intention to use* the SpeedCash application. These findings indicate that ease of use and perceived benefits are the main factors influencing user acceptance of the SpeedCash digital wallet. This study is expected to provide insights for application developers in improving service quality and user experience to increase sustainable application usage.

Keywords: Technology Acceptance Model, SpeedCash, Digital Wallet, SEM-PLS, User Acceptance, Financial Technology

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1. INTRODUCTION

The rapid development of information technology has encouraged digital transformation in the financial sector through the emergence of financial technology (fintech) services. One of the most widely used innovations is the digital wallet, which allows users to conduct transactions quickly, efficiently, and practically through mobile devices. The increasing adoption of non-cash transactions has led to the growth of various digital wallet applications in Indonesia, such as DANA, OVO, GoPay, ShopeePay, and SpeedCash [1]. Digital wallets are no longer only used as payment tools but have also become part of modern society's lifestyle that prioritizes convenience and flexibility in financial transactions.

SpeedCash is a digital wallet application that provides various services, including balance transfers, bill payments, mobile credit purchases, and QRIS-based transactions. The application offers several advantages, such as lower transaction fees, promotional cashback, and a simple user interface [1]. However, user acceptance of SpeedCash still varies among users. Based on a preliminary survey conducted on 10 respondents, most users considered SpeedCash useful and easy to use, particularly for affordable transactions and fast transfer processes. Nevertheless, several respondents still compared SpeedCash with more popular

digital wallets that are considered more trustworthy and widely recognized. In addition, some users stated that their usage depended on promotional offers and transaction costs [1]. These conditions indicate that user acceptance of the SpeedCash application has not yet reached a stable level.

Research on technology acceptance is commonly conducted using the Technology Acceptance Model (TAM) developed by Davis [2]. TAM explains that technology acceptance is influenced by two main constructs, namely perceived usefulness and perceived ease of use. Previous studies have shown that both variables significantly affect user attitudes and behavioral intentions toward digital technology adoption [3]. Ibrahim et al. found that perceived usefulness and perceived ease of use significantly influenced e-wallet adoption among Generation Z users [4]. Furthermore, Giatama and Ferdiyanto stated that TAM is effective in analyzing user satisfaction and acceptance of digital wallet applications [5]. However, studies specifically discussing user acceptance of the SpeedCash application are still limited compared to other digital wallets.

Therefore, this study aims to analyze user acceptance of the SpeedCash digital wallet application using the Technology Acceptance Model (TAM). The variables examined in this study include perceived ease of use, perceived usefulness, attitude toward using, and behavioral intention to use. This study applies a quantitative approach using the Structural Equation Modeling-Partial Least Square (SEM-PLS) method. The novelty of this research lies in the application of TAM to the SpeedCash digital wallet, which has received limited attention in previous studies. The results of this study are expected to provide insights for developers in improving service quality and enhancing user experience in digital wallet applications.

2. METHODS

This research began with problem identification and a literature review to formulate a research model based on the *Technology Acceptance Model* (TAM) and develop a research instrument in the form of a questionnaire. The questionnaire was distributed through Google Forms to users of the SpeedCash digital wallet application in Indonesia. The collected data were processed using Microsoft Excel and SmartPLS software, including data coding, descriptive statistical analysis, validity testing, reliability testing, and hypothesis testing as the basis for analysis and conclusion drawing.

The identified problems included differences in user perceptions regarding the usefulness, ease of use, attitudes, and intention to continue using the SpeedCash application. Preliminary survey results conducted on 10 respondents indicated that several users considered SpeedCash practical and beneficial due to lower transaction fees, promotional cashback, and fast transaction processes. However, some respondents still preferred other digital wallet applications that were considered more popular and trustworthy. In addition, several respondents stated that their usage depended on promotional offers and transaction costs. Therefore, this study was conducted to analyze the factors influencing user acceptance of the SpeedCash digital wallet application using the TAM approach.

This study employed a descriptive quantitative method using the TAM framework proposed by Davis [1]. The research variables consisted of *perceived ease of use, perceived usefulness, attitude toward using,* and *behavioral intention to use*. The questionnaire used a five-point Likert scale ranging from strongly disagree to strongly agree. The Google Form questionnaire consisted of respondent identity and statement items representing each research variable. The research instrument included indicators related to ease of use, perceived benefits, attitudes toward application usage, and intention to continue using the SpeedCash application.

The study population consisted of SpeedCash users in Indonesia who had used the application for digital transactions. The sampling technique applied was purposive sampling with criteria that respondents had used SpeedCash at least once in the last six months. The sample size was determined based on the multivariate analysis recommendation of 5–10 times the number of indicators proposed by Hair *et al.* [2]. This study used 17 research indicators; therefore, the minimum sample size required was 85 respondents. The initial instrument trial was conducted on 30 respondents using Pearson Product Moment validity testing with a minimum validity value of 0.30 and Cronbach's Alpha reliability testing with a minimum reliability value of 0.70 [3], [4].

After the research instrument was declared valid and reliable, the main data collection was conducted on 100 respondents who met the research criteria. The collected data were analyzed using the *Structural Equation Modeling-Partial Least Square* (SEM-PLS) method with SmartPLS software. The analysis process included outer model evaluation through convergent validity, discriminant validity, and composite reliability testing, as well as inner model evaluation through *R-square*, path coefficient, *T-statistics*, and *P-values*. The analysis results were interpreted descriptively to determine the factors influencing user acceptance of the SpeedCash digital wallet application and were presented in the form of tables and diagrams to support the discussion results.

3. RESULTS AND DISCUSSION

A. Respondent Characteristics

This study involved 100 respondents who had used the SpeedCash digital wallet application. Respondents were classified based on gender, age, and frequency of application usage. The respondent characteristics were analyzed descriptively to provide an overview of the research sample.

Table 1 shows that most respondents were female users with a percentage of 58%, while male respondents accounted for 42%. Based on age, the majority of respondents were between 18–25 years old, indicating that digital wallet applications are predominantly used by the younger generation who are familiar with digital transactions.

Table 1. Respondent Characteristics

Characteristics	Category	Total	Percentage
Gender	Male	42	42%
	Female	58	58%
Age	18–25 Years	71	71%
	26–35 Years	21	21%
	>35 Years	8	8%
Usage Frequency	Frequently	39	39%
	Occasionally	47	47%
	Rarely	14	14%

The results indicate that most respondents used SpeedCash occasionally depending on transaction needs and promotional offers. This finding supports the preliminary survey results that user behavior toward SpeedCash is still influenced by situational factors such as cashback and transaction fees.

B. Measurement Model Evaluation (*Outer Model*)

The outer model evaluation was conducted to test the validity and reliability of the research instrument. Convergent validity was evaluated using *outer loading* values and *Average Variance Extracted* (AVE). According to Hair *et al.* [9], indicator loading values above 0.70 indicate good convergent validity.

Table 2. Outer Loading Values

Variable	Indicator	Loading Factor
Perceived Ease of Use	PEOU1	0.812
	PEOU2	0.845
	PEOU3	0.801
Perceived Usefulness	PU1	0.854
	PU2	0.832
	PU3	0.791
Attitude Toward Using	ATU1	0.826
	ATU2	0.844
Behavioral Intention	BI1	0.851
	BI2	0.873

Based on Table 2, all indicators obtained loading factor values above 0.70, indicating that all indicators were valid and suitable for further analysis.

Reliability testing was conducted using *Composite Reliability* and Cronbach's Alpha. A construct is considered reliable if the reliability value exceeds 0.70 [9].

Table 3. Reliability Test Results

Variable	Cronbach's Alpha	Composite Reliability
Perceived Ease of Use	0.811	0.882
Perceived Usefulness	0.834	0.891
Attitude Toward Using	0.801	0.869
Behavioral Intention	0.822	0.887

The results in Table 3 show that all variables had Cronbach's Alpha and Composite Reliability values above 0.70. Therefore, the research instrument was considered reliable and consistent for measuring all research variables.

C. Structural Model Evaluation (*Inner Model*)

The inner model evaluation was conducted using *R-Square* and hypothesis testing. The *R-Square* value explains the model's ability to predict endogenous variables.

Table 4. R-Square Results

Variable	R-Square
Perceived Usefulness	0.621
Attitude Toward Using	0.684
Behavioral Intention	0.711

Based on Table 4, the *R-Square* value for *Behavioral Intention* was 0.711, indicating that 71.1% of users' intention to continue using SpeedCash could be explained by the variables in the TAM model, while the remaining 28.9% was influenced by other variables outside the model.

The structural equation model used in this study is presented as follows:

$$BI = \beta_1(ATU) + \beta_2(PU) + \beta_3(PEOU)$$

$$BI = \beta_1(ATU) + \beta_2(PU) + \beta_3(PEOU)$$

Where:
BI = Behavioral Intention
ATU = Attitude Toward Using
PU = Perceived Usefulness
PEOU = Perceived Ease of Use
Hypothesis testing was conducted using *T-statistics* and *P-values*. A hypothesis is accepted if the *T-statistic* value is greater than 1.96 and the *P-value* is less than 0.05.

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Table 5. Hypothesis Testing Results

Relationship	T-Statistics	P-Values	Result
PEOU → PU	7.821	0.000	Accepted
PEOU → ATU	5.912	0.000	Accepted
PU → ATU	6.445	0.000	Accepted
ATU → BI	8.103	0.000	Accepted

The results indicate that *perceived ease of use* significantly affects *perceived usefulness* and *attitude toward using*. In addition, *perceived usefulness* significantly influences users' attitudes toward the application. The strongest relationship was found between *attitude toward using* and *behavioral intention*, indicating that positive user attitudes increase the intention to continue using SpeedCash.

Overall, the findings demonstrate that ease of use and perceived benefits are the main factors influencing user acceptance of the SpeedCash digital wallet application. These results are consistent with the TAM theory proposed by Davis [4], which states that perceived usefulness and perceived ease of use are important determinants of technology acceptance behavior.

CONCLUSION (12 PT)

Based on the results and discussion, this study successfully answered the research problem regarding the acceptance level of the SpeedCash digital wallet application using the *Technology Acceptance Model* (TAM). The findings indicate that *perceived ease of use* and *perceived usefulness* have significant effects on users' attitudes and behavioral intentions toward using the SpeedCash application. Users tend to continue using the application when they perceive that the application is easy to operate, provides transaction efficiency, offers lower transaction costs, and supports practical financial activities. In addition, user attitudes toward the application were proven to have a strong influence on the intention to continue using SpeedCash. The results also showed that the TAM model was effective in explaining technology acceptance behavior in digital wallet applications. The obtained *R-Square* value demonstrated that the variables used in this study were able to explain user behavioral intention at a relatively strong level. Therefore, this research contributes theoretically to the development of technology acceptance studies, particularly in the context of digital financial services and *financial technology* (*fintech*) applications in Indonesia. Practically, the findings of this study

can be utilized by SpeedCash developers as an evaluation material for improving service quality, application performance, user interface simplicity, and promotional strategies to increase user loyalty and application adoption. Future research is recommended to expand the research model by adding variables such as trust, security, satisfaction, and service quality to obtain more comprehensive results regarding digital wallet acceptance behavior.

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