



## Determinants of Purchase Decisions and Continued Use in Digital Ferry Ticketing Applications: An Extended Technology Acceptance Model Approach

Febrina Christina<sup>1\*</sup>, Ricardo Indra<sup>2</sup>

Bina Nusantara University, Indonesia

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### \*Correspondence Address:

febrina.christina@binus.ac.id

### Abstract :

This study aims to examine the factors influencing user behavior toward the Ferizy application by applying an extended Technology Acceptance Model (TAM) integrated with a digital management communication perspective. The research employed a quantitative survey method with 266 active users, and the data were analyzed using Structural Equation Modeling–Partial Least Squares (SEM-PLS). The findings reveal that brand awareness and price value significantly and positively affect perceived ease of use, perceived enjoyment, and perceived quality. These perception constructs subsequently influence purchase decisions, which, in turn, drive continued use of the application. The results highlight that ease of use, enjoyment, and service quality are critical determinants of user decisions and of fostering long-term engagement with digital service platforms. Theoretically, this study contributes to TAM development by incorporating brand communication and price value as key external variables. In practice, the findings offer strategic insights for organizations to enhance digital communication, ensure transparent pricing, and improve service quality, thereby strengthening user satisfaction and sustained application usage.

## INTRODUCTION

In today's digital society, the transformation of public services through mobile applications has become increasingly important as governments and state-owned enterprises (SOEs) strive to enhance efficiency, accessibility, and public trust. This study is important because digital public services are no longer merely technological tools but essential infrastructures that shape citizens' daily interactions with the state. The reason lies in the growing dependence on mobile platforms for essential services, where user experience directly influences public satisfaction and institutional credibility. Evidence from global studies shows that digitalization in the transportation sector significantly improves service efficiency, reduces operational costs, and enhances customer satisfaction (Dwivedi et al., 2022; Rodriguez-Valencia et al., 2022). In Indonesia, the Ferizy application exemplifies this transformation, reaching 2.32 million active users and reducing operational inefficiencies such as long queues and manual ticketing processes (Mahadi, 2024; Wiryawan, 2024). Therefore, understanding how users perceive and adopt such platforms is crucial, as successful digital transformation ultimately determines the effectiveness of public service delivery and long-term institutional trust.

Despite the rapid growth of digital platforms, user acceptance remains a critical challenge, particularly in public service applications where reliability and trust are paramount. Theoretically, this issue can be explained through the Technology Acceptance Model (TAM), which posits that perceived ease of use and perceived usefulness are key determinants of technology adoption (Ma et al., 2025; Toros et al., 2024). However, in the context of public digital services, this framework must be extended to include communication-related variables such as brand awareness and price value, which influence user perceptions beyond functionality. The general problem arises from recurring user complaints regarding technical failures, poor interface design, and inconsistent information updates, as seen in Ferizy's system disruption on April 28, 2022 (CNN Indonesia, 2022). These issues are compounded by concerns about pricing transparency, which affects perceptions of fairness and trust. According to Kelly & Palaniappan (2023) and Zheng et al. (2025), user acceptance is shaped not only by system usability but also by perceived value and communication clarity. Thus, integrating technological and communication perspectives is necessary to address the multidimensional challenges of digital public service adoption.

The existing literature has extensively examined technology adoption using models such as TAM and UTAUT, particularly in commercial sectors such as e-commerce, mobile banking, and digital payments. Studies have consistently shown that perceived ease of use and perceived usefulness significantly influence user intention and continuance behavior (Sleiman et al., 2022; Toros et al., 2024). Additionally, price value and hedonic motivation have been identified as important determinants of sustained usage, especially in emerging markets where users balance perceived benefits against financial costs (Kumar et al., 2023; Soomro & Habeeb, 2025). In the context of public service applications, research highlights the importance of information quality, system reliability, and mobile accessibility in enhancing user satisfaction and engagement (Desmal et al., 2022; Mensah et al., 2022). However, these studies primarily focus on functional and economic factors, often overlooking the role of communication strategies in shaping user perceptions. As a result, the current body of knowledge provides a strong foundation for understanding technological acceptance. However, it lacks a comprehensive perspective that integrates both cognitive and communicative dimensions of user behavior.

Although prior studies offer valuable insights, significant gaps remain in understanding how communication-related constructs influence technology adoption in public service contexts. Specifically, the integration of brand awareness and perceived quality into traditional TAM frameworks is still limited, despite their recognized importance in digital environments. Chi et al. (2020) argue that brand awareness serves as a cognitive signal that enhances user confidence and perceived ease of use, while Rochefort & Ndlovu (2024) emphasize the role of consistent digital communication in fostering emotional engagement and trust. Nevertheless, empirical studies rarely incorporate these variables simultaneously within a unified model, particularly in the context of SOE-driven platforms. Moreover, most existing research focuses on private-sector applications, which differ from public services in terms of accountability, transparency, and institutional trust (Mensah et al., 2022). This gap indicates a lack of comprehensive models that capture both technological and communication dimensions, thereby limiting the ability to explain user behavior in public digital services fully. Addressing this gap is essential to developing more effective, user-centered digital strategies.

This study introduces a novel integrative framework that combines the Technology Acceptance Model with digital management communication theory to explain user behavior in public service applications better. Unlike previous models that primarily emphasize functional and economic factors, this research positions brand awareness and price value as strategic communication variables that shape both cognitive and affective user responses. The model simultaneously examines their influence on perceived ease of use, perceived enjoyment, and perceived quality, providing a more holistic understanding of how users interact with digital platforms. Furthermore, the study focuses on a state-owned enterprise context, where institutional trust and communication transparency play a central role in shaping user perceptions. By bridging the gap between technology adoption and communication theory, this research offers a more comprehensive analytical lens that reflects the complex realities of digital public services. This approach represents a significant advancement in understanding the interplay between technology, communication, and user behavior.

This study explores how communication and technological factors work together to shape both purchase decisions and the ongoing use of digital public service applications. It posits that user behavior is not just influenced by the functionality of the system, but also significantly by how organizations communicate their value propositions, build brand awareness, and ensure transparent pricing. The model presented here suggests that brand awareness and price value serve as key drivers that impact perceived ease of use, perceived enjoyment, and perceived quality—factors that, in turn, affect purchase decisions and continuance intentions.

The argument underscores that improving technical performance alone is not enough; effective communication strategies are essential to foster user trust and engagement. This research offers empirical insights into how cognitive and affective factors work together, providing practical guidance for State-Owned Enterprises (SOEs) to create more user-centered digital services. The findings aim to contribute to the theoretical framework surrounding digital transformation in public services and inform managerial practices. Based on these considerations, we propose the following hypotheses:

H1: Brand awareness has a positive effect on perceived ease of use of the Ferizy app.

H2: Brand awareness has a positive effect on perceived enjoyment of the Ferizy app.

H3: Brand awareness has a positive effect on perceived quality of the Ferizy app.

H4: Price value has a positive effect on perceived ease of use of the Ferizy app.

H5: Price value has a positive effect on perceived enjoyment of the Ferizy app.

H6: Price value has a positive effect on perceived quality of the Ferizy app.

H7: Perceived Ease of Use has a positive effect on Purchase Decision on the Ferizy application.

H8: Perceived Enjoyment has a positive effect on Purchase Decision on the Ferizy application.

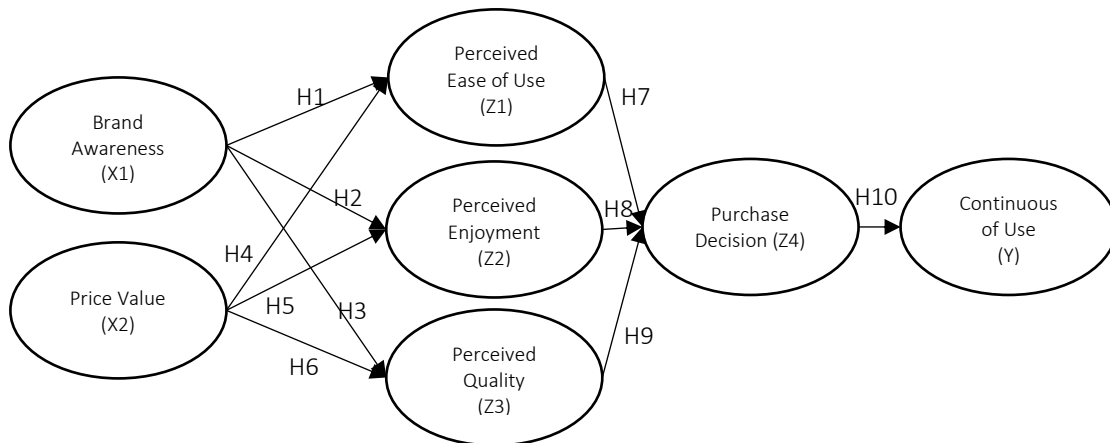
H9: Perceived Quality has a positive effect on Purchase Decision on the Ferizy application.

H10: Purchase Decision has a positive effect on Continuous Use of the Ferizy application.

## RESEARCH METHODS

This study employed a quantitative research approach using the field survey method to examine the causal relationships between variables in a conceptual framework based on the Technology Acceptance Model (TAM), expanded through a

digital management communication perspective. The quantitative approach was chosen to allow empirical testing of hypotheses using standardized numerical data (Henline-Hall, 2024; Kavar et al., 2024). The research design was explanatory, aiming to explain the influence of brand awareness and price value on perceived ease of use, perceived enjoyment, and perceived quality, as well as their effects on purchase decision and continuous use of the Ferizy application. The conceptual research model illustrating the hypothesized relationships among variables is presented in Figure 1.



**Figure 1. Proposed Research Framework**

The study population comprised all Ferizy users who purchased ferry tickets online via the PT ASDP Indonesia Ferry (Persero) platform. Because no public user database was available, the study used non-probability purposive sampling. Respondents were required to be aged 17–55 years, have purchased tickets via Ferizy at least once in the past year, and agree to complete the questionnaire. The sample size followed the guideline of (Hair et al., 2024; Sarstedt et al., 2024), requiring 5–10 respondents per indicator; with 26 indicators, the minimum sample was 130, and the final valid sample totaled 266 respondents to ensure statistical robustness. Primary data were collected through an online questionnaire (Google Form) based on validated indicators from previous studies.

This study operationalizes Brand Awareness using four indicators, brand knowledge, brand recognition, brand differentiation, and brand recall, reflecting users' familiarity and cognitive accessibility of the Ferizy application as a ferry ticketing platform, as adapted from Munir & Watts (2025) and Nathaniel & Rosidah, (2026). Price Value is measured through three indicators capturing price sensitivity, perceived price advantage, and affordability, which assess users' evaluation of the trade-off between ticket prices and service benefits, following Cakici & Tekeli (2022) and Arboretti et al. (2026). Perceived Ease of Use (PEOU) is measured using five indicators related to understandability, process simplicity, interface clarity, and operational efficiency, based on Kowalczyk & Hof (2025) and Lewis & Sauro, (2024). Perceived Enjoyment is assessed through three indicators capturing positive emotional response, voluntary enjoyment, and experiential value during application usage, adapted from Esawe (2022) and Huang & Liu, (2024). Perceived Quality is measured using five indicators encompassing information quality, service efficiency, communication quality, transaction efficiency, and security and trust quality, following Galvez-Ruiz et al. (2023) and Chand et al. (2026). Purchase Decision is operationalized with three indicators reflecting purchase confidence, purchase

preference, and post-decision satisfaction, based on Hanaysha (2022) and Goyovi et al. (2023). Finally, Continuous Use is measured through three indicators capturing continued usage preference, long-term usage intention, and willingness to recommend, adapted from Istijanto & Handoko (2025) and (Liu et al., 2025). Data analysis employed SEM-PLS using SmartPLS 3.0 due to its suitability for complex predictive models and non-normal data distributions (Hair et al., 2024; Sarstedt et al., 2024). The analysis involved two main stages: measurement model evaluation, assessing convergent validity, discriminant validity, and reliability through loading factor  $\geq 0.70$ , AVE  $\geq 0.50$ , and CR  $\geq 0.70$  and structural model evaluation, testing path coefficients, t-statistics, and p-values using the bootstrapping method, along with assessing  $R^2$ ,  $f^2$ ,  $Q^2$ , and Goodness-of-Fit (GoF) to evaluate model fit and predictive relevance.

## RESULTS AND DISCUSSION

### Results

#### Respondent Characteristics Analysis

Based on the results of data collection on 266 respondents who use the Ferizy application, a general description of the characteristics of the respondents was obtained as follows.

Table 1. Respondent Characteristic

Characteristics	Amount	%
<b>Age:</b>		
17–25 years old	81	30.5
26–35 years old	111	41.7
36–45 years old	58	21.8
46–55 years old	16	6.0
<b>Education Level:</b>		
Diploma	37	13.9
Postgraduate Degree	23	8.6
Bachelor's Degree	99	37.2
High School/Vocational High School	90	33.8
Junior High School	17	6.4
<b>Occupation:</b>		
Private Employees	131	49.2
Civil Servants	36	13.5
Students	57	21.4
Entrepreneurs	42	15.8
<b>Frequency of Use (Last 1 years):</b>		
2–3 times	108	40.6
4–6 times	72	27.1
1 time	65	24.4
> 6 times	21	7.9

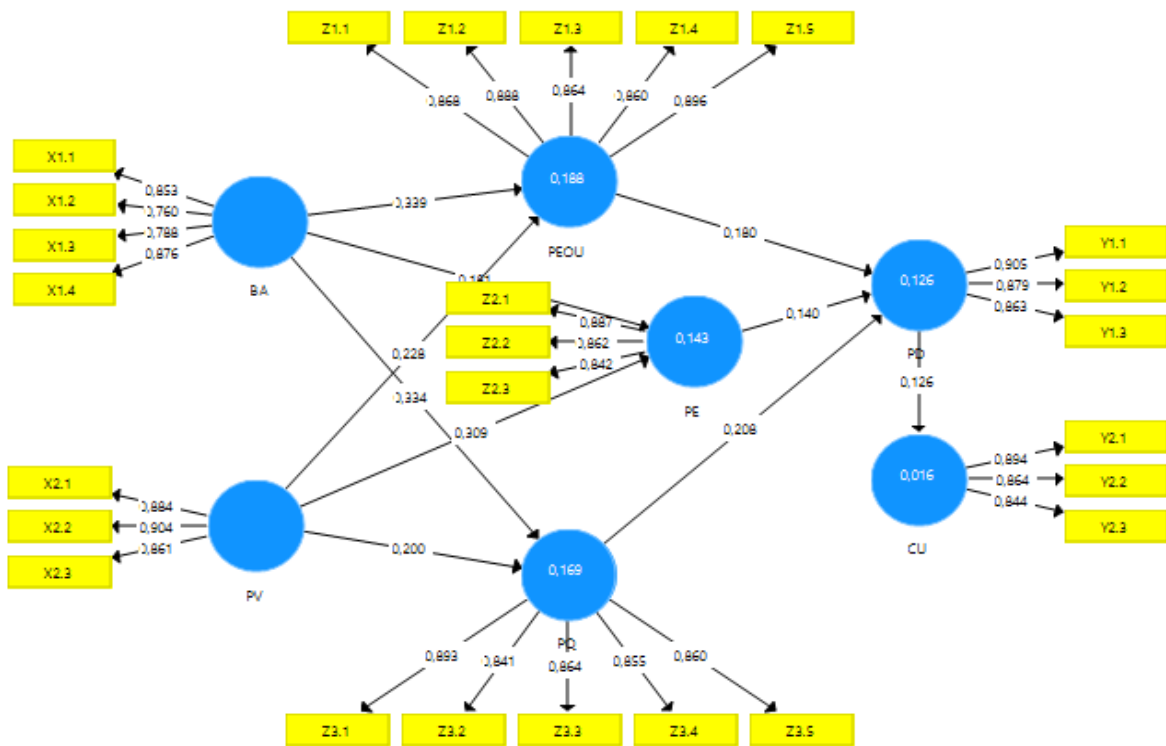
Source: Data Processing (2025)

The majority of respondents were in the 26–35 age group, amounting to 41,7%, followed by the 17–25 age group at 30,5%, and the remainder were in the 36–45 and 46–55 age ranges. In terms of their last education level, the majority of respondents were undergraduate (Bachelor) graduates with a proportion of 37,2%, followed by high school/vocational school graduates at 33,8%, and diploma graduates at 13,9%. Based on the type of employment, the majority of respondents came from private sector employees at 49,2%, followed by students at 21,4%, and entrepreneurs at 15,8%. Furthermore, based on

the frequency of application use in the last one years, 40,6% of respondents stated that they had used the Ferizy application two to three times, while 35,0% of respondents used it more than three times, and the remaining 24,4% had only used it once. Overall, the characteristics of respondents indicate that Ferizy users are dominated by individuals of productive age and highly educated, which is in line with the demographic profile of Indonesia's current digital society. This is an important basis in understanding user behavior in the context of the adoption and sustainability of technology-based public service applications.

### Measurement Model

The measurement model of this study is visualized in Figure 1, which displays the relationship between the latent construct and its indicators, along with the outer loading value of each indicator on the construct being measured.



**Figure 2. Loading Factor Indicator**  
Source: Data Processing SmartPLS 3.0

The convergent validity test results for the measurement model were conducted by examining the outer loading value of each indicator against the latent construct. Based on the results in Table 2, all indicators had loading factor values above 0.70, which means they exceeded the critical value (R critical) of 0.50. This value indicates that each indicator has a strong contribution in reflecting the construct it measures.

**Table 2. Loading Factor Value**

Construct	Loading Factor	R critical	Result
X1.1 <- Brand Awareness	0.853	0.5	Valid
X1.2 <- Brand Awareness	0.760	0.5	Valid
X1.3 <- Brand Awareness	0.788	0.5	Valid
X1.4 <- Brand Awareness	0.876	0.5	Valid
X2.1 <- Price Value	0.884	0.5	Valid

Construct	Loading Factor	R critical	Result
X2.2 <- Price Value	0.904	0.5	Valid
X2.3 <- Price Value	0.861	0.5	Valid
Z1.1 <- Perceived Ease of Use	0.868	0.5	Valid
Z1.2 <- Perceived Ease of Use	0.888	0.5	Valid
Z1.3 <- Perceived Ease of Use	0.864	0.5	Valid
Z1.4 <- Perceived Ease of Use	0.860	0.5	Valid
Z1.5 <- Perceived Ease of Use	0.896	0.5	Valid
Z2.1 <- Perceived Enjoyment	0.887	0.5	Valid
Z2.2 <- Perceived Enjoyment	0.862	0.5	Valid
Z2.3 <- Perceived Enjoyment	0.842	0.5	Valid
Z3.1 <- Perceived Quality	0.893	0.5	Valid
Z3.2 <- Perceived Quality	0.841	0.5	Valid
Z3.3 <- Perceived Quality	0.864	0.5	Valid
Z3.4 <- Perceived Quality	0.855	0.5	Valid
Z3.5 <- Perceived Quality	0.860	0.5	Valid
Z4.1 <- Purchase Decision	0.905	0.5	Valid
Z4.2 <- Purchase Decision	0.879	0.5	Valid
Z4.3 <- Purchase Decision	0.863	0.5	Valid
Y1 <- Continuous of Use	0.894	0.5	Valid
Y2 <- Continuous of Use	0.864	0.5	Valid
Y3 <- Continuous of Use	0.844	0.5	Valid

Source: Data Analysis Result (2025)

Convergent validity is further evaluated through the Average Variance Extracted (AVE) value of each latent construct.

**Table 3. Average Variance Extracted (AVE) Value**

Latent	Average Variance Extracted (AVE)	R critical	Result
Brand Awareness	0.668	0.5	Valid
Price Value	0.658	0.5	Valid
Perceived Ease of Use	0.635	0.5	Valid
Perceived Enjoyment	0.671	0.5	Valid
Perceived Quality	0.596	0.5	Valid
Purchase Decision	0.665	0.5	Valid
Continuous of Use	0.701	0.5	Valid

Source: Data Analysis Result (2025)

Based on the results in Table 3, all constructs in this study have AVE values above the recommended minimum limit, which ranges from 0.596 to 0.701. The construct with the highest AVE value is Continuous of Use (0.701), indicating that the indicators in this variable have a very strong representation ability for the latent construct. This confirms that user commitment to continue using the Ferizy application can be well explained through the indicators used, such as intention to reuse and willingness to recommend to other users.

Discriminant validity indicates the extent to which a construct is truly different from other constructs in the model, both conceptually and empirically.

Table 4. Cross Loading Value

	Brand Awareness	Price Value	Perceived Ease of Use	Perceived Enjoyment	Perceived Quality	Purchase Decision	Continuous of Use
X1.1	<b>0.853</b>	0.079	0.303	0.148	0.307	0.185	-0.009
X1.2	<b>0.760</b>	0.145	0.320	0.192	0.193	0.220	0.030
X1.3	<b>0.788</b>	0.095	0.210	0.189	0.320	0.223	-0.003
X1.4	<b>0.876</b>	0.112	0.366	0.198	0.347	0.214	-0.052
X2.1	0.078	<b>0.884</b>	0.204	0.293	0.229	0.129	0.061
X2.2	0.112	<b>0.904</b>	0.259	0.347	0.210	0.108	-0.038
X2.3	0.157	<b>0.861</b>	0.259	0.232	0.208	0.112	0.016
Z1.1	0.344	0.240	<b>0.868</b>	0.178	0.159	0.252	0.010
Z1.2	0.305	0.279	<b>0.888</b>	0.173	0.172	0.171	0.004
Z1.3	0.319	0.246	<b>0.864</b>	0.140	0.228	0.220	0.019
Z1.4	0.297	0.234	<b>0.860</b>	0.143	0.166	0.199	0.038
Z1.5	0.346	0.195	<b>0.896</b>	0.160	0.134	0.228	0.070
Z2.1	0.208	0.295	0.182	<b>0.887</b>	0.110	0.180	0.038
Z2.2	0.150	0.330	0.137	<b>0.862</b>	0.120	0.165	0.027
Z2.3	0.218	0.230	0.151	<b>0.842</b>	0.082	0.167	0.064
Z3.1	0.299	0.253	0.173	0.117	<b>0.893</b>	0.241	-0.042
Z3.2	0.312	0.220	0.180	0.089	<b>0.841</b>	0.234	-0.036
Z3.3	0.313	0.205	0.136	0.172	<b>0.864</b>	0.206	-0.024
Z3.4	0.325	0.188	0.154	0.067	<b>0.855</b>	0.194	-0.022
Z3.5	0.304	0.184	0.204	0.078	<b>0.860</b>	0.247	-0.047
Z4.1	0.229	0.170	0.251	0.206	0.245	<b>0.905</b>	0.119
Z4.2	0.232	0.105	0.194	0.171	0.193	<b>0.879</b>	0.092
Z4.3	0.216	0.063	0.200	0.142	0.247	<b>0.863</b>	0.119
Y1	-0.020	0.028	0.014	0.054	0.005	0.126	<b>0.894</b>
Y2	-0.049	-0.029	-0.005	0.041	-0.061	0.102	<b>0.864</b>
Y3	0.039	0.030	0.081	0.029	-0.059	0.095	<b>0.844</b>

Source: Data Analysis Result (2025)

Table 4 shows that all indicators have the highest cross-loading values on their original constructs compared to other constructs. Therefore, the cross-loading test results confirm that all constructs in this research model meet the criteria for discriminant validity. This indicates that each construct in the model possesses a unique measurement identity and can be empirically distinguished from other constructs, ensuring their reliable use in subsequent structural analysis.

Table 5. Cronbach's Alpha dan Composite Reliability Value

Latent	Cronbach's Alpha	Composite Reliability	Result
Brand Awareness	0.892	0.838	Reliable
Price Value	0.914	0.859	Reliable
Perceived Ease of Use	0.943	0.924	Reliable
Perceived Enjoyment	0.898	0.830	Reliable
Perceived Quality	0.936	0.914	Reliable
Purchase Decision	0.914	0.859	Reliable
Continuous of Use	0.901	0.837	Reliable

Source: Data Analysis Result (2025)

Table 5 shows that all constructs in this study met the required reliability criteria. Cronbach's Alpha values ranged from 0.892 to 0.943, while Composite Reliability (CR) values ranged from 0.837 to 0.924. These results demonstrate that all indicators within each construct exhibit strong internal correlations, confirming that they can be reliably used to measure the latent variables they represent.

## Structural Model

One of the main measures used in evaluating structural models is the coefficient of determination ( $R^2$ ).  $R^2$  values of 0.75, 0.50, and 0.25 can be interpreted as strong, moderate, and weak, respectively. Thus, a higher  $R^2$  value indicates a greater model ability to explain the variability of the dependent construct.

**Table 6. R Square Value**

	R square	Relationship Strength
Perceived ease of use	0.188	Weak
Perceived enjoyment	0.143	Weak
Perceived quality	0.169	Weak
Purchase decision	0.126	Weak
Continuous of use	0.016	Weak

Source: Data Analysis Result (2025)

Table 6 shows that the  $R^2$  values for the constructs Perceived Ease of Use, Perceived Enjoyment, Perceived Quality, Purchase Decision, and Continuous Use are 0.188, 0.143, 0.169, 0.126, and 0.016, respectively. All of these values fall below 0.25, placing them in the weak predictive category. While these  $R^2$  values suggest a relatively weak relationship between the constructs, the results remain relevant for understanding user behavior in the context of public service applications like Ferizy. This is due to the complexity of external factors that influence adoption behavior and continued use, many of which are beyond service providers' control (Dwivedi et al., 2022).

In addition to the coefficient of determination ( $R^2$ ), structural model evaluation is also conducted by measuring the effect size ( $f^2$ ). This analysis is used to determine the extent to which exogenous variables contribute to endogenous variables in the structural model. According to Cohen (1988) interpretation guidelines,  $f^2$  values of 0.02, 0.15, and 0.35 indicate small, medium, and large levels of influence, respectively.

**Table 7. f Square Value**

Exogen Variable	Endogen Variable	Effect Size	Rating
Brand Awareness	Perceived ease of use	0.139	small
	Perceived enjoyment	0.037	small
	Perceived quality	0.132	small
Price Value	Perceived ease of use	0.063	small
	Perceived enjoyment	0.109	small
	Perceived quality	0.048	small
Perceived ease of use	Purchase decision	0.035	small
Perceived enjoyment	Purchase decision	0.021	small
Perceived quality	Purchase decision	0.047	small
Purchase decision	Continuous of use	0.016	small

Source: Data Analysis Result (2025)

Table 7 indicates that the predominance of small effect sizes aligns with the nature of consumer behavior in digital service platforms, where purchase and continuance decisions are typically influenced by multiple interrelated factors rather than a single dominant determinant. This reflects the complex and multifaceted nature of user behavior in digital environments, where various elements interact to shape overall

decisions. Despite their modest magnitude, the cumulative effects of brand awareness, price value, and TAM-related constructs remain theoretically relevant and empirically meaningful in explaining user behaviour within the Ferizy online ticketing ecosystem.

In addition to R-Square and Effect Size ( $f^2$ ), evaluation of structural models can also be done by measuring predictive relevance ( $Q^2$ ) to assess the model's ability to predict endogenous variables.

**Table 8. Q2 Predictive Relevance**

Variable	R square	1- Rsquare
Perceived ease of use	0.188	0.812
Perceived enjoyment	0.143	0.857
Perceived quality	0.169	0.831
Purchase decision	0.126	0.874
Continuous of use	0.016	0.984
Q2 =	Q2 = 1- (1-R12) (1-R22) (1-R32) (1-R42) (1-R52) = 0.498	
Galat =	Q2 = 100%- 49.8% = 50.2%	

Source: Data Analysis Result (2025)

Table 8 shows that the  $Q^2$  value is 0.498, indicating that the model has a predictive ability of 49.8% for the endogenous variables tested. Meanwhile, the prediction error, or residual value ( $1 - Q^2$ ), of 50.2% represents the proportion of variance that the model cannot explain. This unexplained variance is likely due to external factors beyond the scope of the research construct.

The final stage in evaluating a structural model is testing the causal relationships between latent variables through path coefficient analysis. This analysis is used to assess the strength and direction of the relationships between variables and to test the hypotheses developed in the research model. A relationship is considered significant if the t-statistic is  $>1.96$  at a significance level of  $p < 0.05$ .

**Table 9. Hypothesis Test Result**

Hypothesis	Original Sample (O)	t-statistic	p-value	Result
Brand awareness → perceived ease of use	0.339	6.305	0.000	Accepted
Brand awareness → perceived enjoyment	0.181	2.758	0.006	Accepted
Brand awareness → perceived quality	0.334	6.194	0.000	Accepted
Price value → perceived ease of use	0.228	4.417	0.000	Accepted
Price value → perceived enjoyment	0.309	5.721	0.000	Accepted
Price value → perceived quality	0.200	3.390	0.001	Accepted
Perceived ease of use → purchase decision	0.180	3.101	0.002	Accepted
Perceived enjoyment → purchase decision	0.140	2.447	0.015	Accepted
Perceived quality → purchase decision	0.208	3.398	0.001	Accepted
Purchase decision → continuous of use	0.126	2.110	0.036	Accepted

Source: Data Analysis Result (2025)

Table 9 shows that all hypotheses (H1–H10) are accepted, as they have a t-statistic value above 1.96 and a p-value below 0.05. This confirms that the proposed relationships in the model are statistically significant and support the validity of the hypotheses. This indicates that all relationships between variables in the model have a statistically significant influence. Brand awareness and price value are important determinants in shaping perceptions of ease,

pleasure, and service quality, which ultimately influence purchasing decisions and continued use of the Ferizy application. Thus, the conceptual model of this study is proven to be able to explain the behavior of users of public service-based digital applications through the Technology Acceptance Model (TAM) approach integrated with digital management communication theory.

## Discussion

The results showed that brand awareness had a significant positive effect on perceived ease of use ( $\beta = 0.339$ ;  $p < 0.000$ ). This means that the higher a user's awareness of the Ferizy brand, the greater the perceived ease of use of the application. This finding aligns with digital brand communication theory, which states that brand awareness creates perceptions of familiarity and trust in digital systems (Alam & Al Mubarak, 2025; Rochefort & Ndlovu, 2024). Users who are familiar with and trust a brand tend to find it easier to navigate application features, driven by the psychological factor of familiarity (Tahir et al., 2024; Agung et al., 2023). Thus, Ferizy successfully leveraged its brand to reduce users' technical barriers, reinforcing the role of brand awareness as a bridge between digital communication and user experience in public services.

Brand awareness also had a significant positive effect on perceived enjoyment ( $\beta = 0.181$ ;  $p < 0.006$ ) and perceived quality ( $\beta = 0.334$ ;  $p < 0.000$ ). This indicates that brand awareness can foster both emotional comfort and perceptions of service excellence when interacting with the Ferizy app. Consistent digital brand communication through logos, interface design, and visual messages creates a positive emotional effect that enhances user satisfaction (Alam & Al Mubarak, 2025; Rochefort & Ndlovu, 2024). These findings support the Stimulus–Organism–Response (SOR) theory, which holds that strong brand communication stimuli elicit emotional responses, specifically pleasure. Furthermore, from the perspective of brand signaling theory, brands function as indicators of reliability and quality assurance, strengthening user trust in system performance and transaction security (Chi et al., 2020; Tahir et al., 2024).

The price value variable has a significant positive effect on perceived ease of use ( $\beta = 0.228$ ;  $p < 0.000$ ) and perceived enjoyment ( $\beta = 0.309$ ;  $p < 0.000$ ). This means that when users perceive prices as fair and aligned with the benefits received, they experience both cognitive simplicity and emotional satisfaction during application use. According to UTAUT2 theory, fair and transparent pricing reduces perceived system complexity and enhances user evaluation of digital services. These results are consistent with prior studies showing that positive value perceptions strengthen cognitive assessments of ease of use and generate hedonic value in digital platforms (Sleiman et al., 2022; Al Amin et al. (2024). In the context of Ferizy, ticket price transparency and efficient payment processes contribute to a more convenient and enjoyable user experience.

Price value also had a significant positive effect on perceived quality ( $\beta = 0.200$ ;  $p < 0.001$ ), indicating that perceptions of fair pricing contribute to overall service quality evaluations. When users perceive pricing as transparent and reasonable, they tend to associate the service provider with integrity and reliability. This finding is consistent with previous research suggesting that fair pricing enhances quality perceptions and strengthens trust in digital service delivery (D'Souza, 2025; Rochefort & Ndlovu, 2024). In the context of Ferizy, affordability and clear pricing information function as part of a digital communication strategy that reinforces trust and perceived service excellence.

Furthermore, the perceived ease of use ( $\beta = 0.180$ ;  $p < 0.002$ ), perceived enjoyment ( $\beta = 0.140$ ;  $p = 0.015$ ), and perceived quality ( $\beta = 0.208$ ;  $p < 0.001$ ) constructs were all found to have significant positive effects on purchase decisions. These findings indicate that both cognitive and affective perceptions play important roles in shaping user decisions. The results support the Technology Acceptance Model (TAM), which emphasizes the importance of ease of use in influencing behavioral intentions, as well as the SOR framework, where emotional responses such as enjoyment contribute to decision-making (Ayuningtias & Khasanah, 2024; Chen et al., 2025; Iskandar et al., 2024). In addition, perceived quality strongly influences purchasing behavior, as users rely on service reliability and system performance when making decisions (Galvez-Ruiz et al., 2023; Goyovi et al., 2023).

Finally, the results showed that purchase decisions had a significant positive effect on continued use ( $\beta = 0.126$ ;  $p = 0.036$ ). This indicates that a positive and satisfying purchase experience encourages users to use the Ferizy application repeatedly. This finding highlights the importance of post-purchase evaluation in shaping long-term user behavior. Consistent with prior studies, positive purchase experiences strengthen user satisfaction, which ultimately drives loyalty and continuance intention in digital platforms (Bilgili, 2026; Rochefort & Ndlovu, 2024). Therefore, ensuring a seamless, satisfying transaction process is crucial to maintaining user retention and long-term engagement in digital public service applications.

## CONCLUSION

This study examined factors influencing user behavior toward the Ferizy application using an expanded Technology Acceptance Model (TAM) with a digital management communication perspective. SEM-PLS analysis of 266 active users revealed that brand awareness positively affects perceived ease of use, enjoyment, and quality, enhancing both cognitive and emotional user experiences. Price value similarly influences these perceptions, with transparent pricing strengthening user satisfaction. Additionally, perceptions of ease of use, enjoyment, and quality significantly affect purchase decisions, which, in turn, influence continued use.

The findings suggest several managerial implications for PT ASDP Indonesia Ferry. Strengthening brand awareness should be central to the digital communication strategy, as it shapes users' perceptions and builds trust. Simplifying the application interface is crucial for enhancing perceived ease of use, while maintaining high digital service quality boosts user satisfaction and loyalty. Post-purchase communication strategies, such as reminders and updates, are essential for fostering continued use. Future research should address the study's limitations, such as its cross-sectional design and modest explanatory power for continuous use, by incorporating additional variables and longitudinal designs to understand dynamic user behavior better.

## REFERENCES

- Alam, S. M., & Al Mubarak, M. (2025). The relationship between digital marketing and consumer brand perception. *Competitiveness Review: An International Business Journal*, 35(4), 753–771. <https://doi.org/10.1108/CR-02-2024-0035>

- Arboretti, R., Biasetton, N., Ceccato, R., Molena, A., & Salmaso, L. (2026). Data-driven ticket pricing in football: leveraging customer perceived value for revenue optimization. *Journal of Big Data*. <https://doi.org/10.1186/s40537-026-01384-x>
- Ayuningtias, S. C., & Khasanah, I. (2024). Analisis Pengaruh Perceived Quality, Country of Origin, dan E-WOM terhadap Purchase Decision dengan Brand Image sebagai Variabel Intervening (Studi pada Konsumen Starbucks di Kota Semarang). *Diponegoro Journal Of Management*, 13(1), 1–13.
- Bilgili, U. (2026). *Digital Marketing Program Naudotojy Sqsajos Našumo Vartotojy Pasitenkinimui Skaitmeninėse Platformose : Dėmesys Po Pirkimo Patirtims Elektroninėje Prekyboje Usability Factors Influencing User Satisfaction On Digital Platforms : A Focus On Post- Purchase E*. 112.
- Cakici, A. C., & Tekeli, S. (2022). The mediating effect of consumers' price level perception and emotions towards supermarkets. *European Journal of Management and Business Economics*, 31(1), 57–76. <https://doi.org/10.1108/EJMBE-12-2020-0344>
- Chand, A., Liu, D., Zulfiqar, M., Ullah, M. R., & Khan, M. J. (2026). Perceived quality in fintech services: expanding UTAUT2 and the DeLone and McLean information system success models. *Business Process Management Journal*, 32(2), 399–419. <https://doi.org/10.1108/BPMJ-08-2024-0754>
- Chen, L., Wu, X., Liu, Y., Hu, Z., Chen, X., & Zhang, Z. (2025). *Integrating TAM – ISSM – SOR framework to explore how virtual tourism experience influences tourists' travel intention*. 1–14. <https://doi.org/10.1038/s41598-025-24793-z>
- Chi, H.-K., Huang, K.-C., & Nguyen, H. M. (2020). Elements of destination brand equity and destination familiarity regarding travel intention. *Journal of Retailing and Consumer Services*, 52, 101728. <https://doi.org/https://doi.org/10.1016/j.jretconser.2018.12.012>
- CNN Indonesia. (2022). *Netizen Keluhkan Layanan Beli Tiket Kapal Ferizy Tidak Bisa Diakses*. CNN Indonesia.
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences*. Lawrence Erlbaum Associates.
- D'Souza, E. (2025). Perceived service quality, price fairness, and their effect on customer satisfaction and loyalty in the Indian restaurant sector. *Journal of Hotel Management and Tourism*, 3(1), 1–29.
- Desmal, A. J., Othman, M. K., Hamid, S., & Zolait, A. (2022). Exploring the information quality of mobile government services: a literature review. *PeerJ Computer Science*, 8, e1028. <https://doi.org/10.7717/peerj-cs.1028>
- Dwivedi, Y. K., Hinsch, C., Jebabli, & Wamba, S. F. (2022). Metaverse beyond the hype: Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. *International Journal of Information Management*, 66, 102542. <https://doi.org/https://doi.org/10.1016/j.ijinfomgt.2022.102542>
- Esawe, A. T. (2022). Understanding mobile e-wallet consumers' intentions and user behavior. *Spanish Journal of Marketing - ESIC*, 26(3), 363–384. <https://doi.org/10.1108/SJME-05-2022-0105>
- Galvez-Ruiz, P., Calabuig, F., & Garcia-Fernandez, J. (2023). The effect of perceived quality and customer engagement on the loyalty of users of Spanish fitness centres. *Academia Revista Latinoamericana de Administraci?On*, 36(4), 445–462. <https://doi.org/10.1108/ARLA-01-2023-0014>

- Goyovi, J., Listiana, E., & Mayasari, E. (2023). Enrichment : Journal of Management The effect of product quality , premium price , and brand image on purchase decisions using sem ( Case study Natesh Sanitary Pads ). *Enrichment: Journal of Management*, 13(5), 3187–3197.
- Hair, J. F., Sarstedt, M., Ringle, C. M., Sharma, P. N., & Liengard, B. D. (2024). Going beyond the untold facts in PLS–SEM and moving forward. *European Journal of Marketing*, 58(13), 81–106. <https://doi.org/10.1108/EJM-08-2023-0645>
- Hanaysha, J. R. (2022). An examination of social media advertising features, brand engagement and purchase intention in the fast food industry. *British Food Journal*, 124(11), 4143–4160. <https://doi.org/10.1108/BFJ-08-2021-0907>
- Henline-Hall, J. (2024). Introduction to Quantitative and Qualitative Research Methods. *Radiologic Technology*, 96(1).
- Huang, F., & Liu, S. (2024). If I enjoy, I continue: The mediating effects of perceived usefulness and perceived enjoyment in continuance of asynchronous online English learning. *Education Sciences*, 14(8), 880. <https://doi.org/10.3390/educsci14080880>
- Iskandar, R. I., Astuti, Y., & Indrajaya, D. (2024). The influence of customer expectation, perceived enjoyment, perceived ease of use, and customer satisfaction on repurchase intention of vidio. Com streaming service providers. *Journal of Law and Sustainable Development*, 12(1), 1–21. <https://doi.org/10.55908/sdgs.v12i1.2137>
- Istijanto, & Handoko, I. (2025). Customers’ continuance usage of mobile payment during the COVID-19 pandemic. *Spanish Journal of Marketing - ESIC*, 26(3), 345–362. <https://doi.org/10.1108/SJME-02-2022-0016>
- Kawar, L. N., Dunbar, G. B., Aquino-Maneja, E. M., Flores, S. L., Squier, V. R., & Failla, K. R. (2024). Quantitative, qualitative, mixed methods, and triangulation research simplified. *The Journal of Continuing Education in Nursing*, 55(7), 338–344. <https://doi.org/10.3928/00220124-20240328-03>
- Kelly, A. E., & Palaniappan, S. (2023). Using a technology acceptance model to determine factors influencing continued usage of mobile money service transactions in Ghana. *Journal of Innovation and Entrepreneurship*, 12(1), 34. <https://doi.org/10.1186/s13731-023-00301-3>
- Kowalczyk, P., & Hof, N. (2025). The customer’s perceived value-in-use of voice-assisted smart products and its impact on continuance intention : a trade-off between benefits and costs. *Journal of Product & Brand Management*, 1(12), 1–17. <https://doi.org/10.1108/JPBM-08-2023-4670>
- Kumar, R., Singh, R., Kumar, K., Khan, S., & Corvello, V. (2023). How Does Perceived Risk and Trust Affect Mobile Banking Adoption? Empirical Evidence from India. *Sustainability*, 15(5). <https://doi.org/10.3390/su15054053>
- Lewis, J. R., & Sauro, J. (2024). Effect of perceived ease of use and usefulness on UX and behavioral outcomes. *International Journal of Human–Computer Interaction*, 40(20), 6676–6683. <https://doi.org/10.1080/10447318.2023.2260164>
- Liu, J., Chen, X., Zhou, X., Wei, J., & Liu, C. (2025). How to influence the continuous usage intention of game-based Internet public welfare users? An empirical analysis based on SEM and fsQCA. *PLoS One*, 20(6), e0325933. <https://doi.org/10.1371/journal.pone.0325933>

- Ma, J., Wang, P., Li, B., Wang, T., Pang, X. S., & Wang, D. (2025). Exploring user adoption of ChatGPT: A technology acceptance model perspective. *International Journal of Human–Computer Interaction*, 41(2), 1431–1445. <https://doi.org/10.1080/10447318.2024.2314358>
- Mahadi, T. (2024). *ASDP Catat Kinerja Positif Berkat Transformasi Digital Ferizy*. Kontan.
- Mensah, I. K., Mwakapesa, D. S., & Garcia-Cabot, A. (2022). The Impact of Context Awareness and Ubiquity on Mobile Government Service Adoption. *Mob. Inf. Syst.*, 2022. <https://doi.org/10.1155/2022/5918826>
- Munir, T., & Watts, S. (2025). Power of social media influencers on brand awareness, value, and consumer purchases. *Spanish Journal of Marketing - ESIC*, 1(11), 1–20. <https://doi.org/10.1108/SJME-02-2024-0030>
- Nathaniel, S. V., & Rosidah, R. (2026). The Influence of Social Media Marketing on Brand Awareness and Purchase Intention: An Empirical Study on FiberCreme in Indonesian Market. *Global Business & Finance Review*, 31(1), 173. <https://doi.org/10.17549/gbfr.2026.31.1.173>
- Rocheftort, T., & Ndlovu, Z. (2024). Digital Marketing Strategies in Building Brand Awareness and Loyalty in the Online Era. *Startupreneur Business Digital (SABDA Journal)*, 3(2), 107–114. <https://doi.org/10.33050/sabda.v3i2.539>
- Rodriguez-Valencia, A., & Vallejo-Borda, J. A. (2022). Understanding transit user satisfaction with an integrated bus system. *Journal of Public Transportation*, 24, 100037. <https://doi.org/https://doi.org/10.1016/j.jpubtr.2022.100037>
- Sarstedt, M., Richter, N. F., Hauff, S., & Ringle, C. M. (2024). Combined importance–performance map analysis (cIPMA) in partial least squares structural equation modeling (PLS–SEM): a SmartPLS 4 tutorial. *Journal of Marketing Analytics*, 12(4), 746–760. <https://doi.org/10.1057/s41270-024-00325-y>
- Sleiman, K. A. A., Jin, W., Juanli, L., Lei, H. Z., Cheng, J., Ouyang, Y., & Rong, W. (2022). The Factors of Continuance Intention to Use Mobile Payments in Sudan. *Sage Open*, 12(3), 21582440221114332. <https://doi.org/10.1177/21582440221114333>
- Soomro, S. A., & Habeeb, Y. O. (2025). Impact of perceived ease of use on impulsive buying behaviour through mobile commerce with hedonic and utilitarian effects. *Asia-Pacific Journal of Business Administration*, 17(3), 796–813. <https://doi.org/10.1108/APJBA-11-2023-0563>
- Tahir, A. H., Adnan, M., & Saeed, Z. (2024). The impact of brand image on customer satisfaction and brand loyalty: A systematic literature review. *Heliyon*, 10(16), e36254. <https://doi.org/https://doi.org/10.1016/j.heliyon.2024.e36254>
- Tam, C., Santos, D., & Oliveira, T. (2020). Exploring the influential factors of continuance intention to use mobile Apps: Extending the expectation confirmation model. *Information Systems Frontiers*, 22(1), 243–257. <https://doi.org/10.1007/s10796-018-9864-5>
- Toros, E., Asiksoy, G., & Sürücü, L. (2024). Refreshment students' perceived usefulness and attitudes towards using technology: a moderated mediation model. *Humanities and Social Sciences Communications*, 11(1), 1–10. <https://doi.org/10.1057/s41599-024-02839-3>
- Wiryawan, A. (2024). *ASDP strengthens digital transformation of ferry services*. PWC Indonesia.
- Zheng, H., Xiao, D., & Zhou, J. (2025). Enhancing perceived value in human-computer interaction: The mediating role of user participation and the moderating role of task complexity. *International Journal of Human–Computer Interaction*, 41(7), 4261–4270.

Zollo, L., Filieri, R., Rialti, R., & Yoon, S. (2020). Unpacking the relationship between social media marketing and brand equity: The mediating role of consumers' benefits and experience. *Journal of Business Research*, *117*, 256–267. <https://doi.org/https://doi.org/10.1016/j.jbusres.2020.05.001>