REVOLUTIONIZING PAYMENT TRENDS: BALIPAY E-WALLET TECHNOLOGY ACCEPTANCE WITH TRUST MEDIATION

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Abstract: The trend towards a cashless society in Indonesia is rapidly advancing, driven by the introduction of Bank BPD Bali’s innovative e-wallet, Balipay. However, the bank faces significant challenges amidst escalating competition from other e-wallet products. This research addresses these challenges by examining the factors influencing users’ interest in adopting and using Balipay. Utilizing the Technology Acceptance Model (TAM), the study considers perceived usefulness, perceived ease of use, and additional constructs related to perceived security and trust regarding the Balipay e-wallet. Data for the research was collected through an online survey involving 180 active Balipay users in Bali, and the analysis was conducted using Structural Equation Modeling (SEM) through the SmartPLS 4 tool. The findings indicate that perceived usefulness has a significant and positive impact on user interest, whereas perceived ease of use and security perception do not significantly affect user interest. Furthermore, the study reveals that perceived usefulness, ease of use, and security positively and significantly influence user trust. Trust mediates the relationship between perceived usefulness, ease of use, and security concerning user interest in Balipay. In practical terms, the research offers valuable insights for e-wallet service providers like Balipay, enhancing their understanding of user behavior. Service providers are also obliged to prioritize user-related interests, with the aim of increasing interest while building and maintaining a higher level of trust. Therefore, this research was conducted with the aim of providing us with an in-depth understanding of various user behaviors and providing concrete guidance for service providers to face the challenges of a larger and more dynamic market.

Keywords: Perceived Usefulness, Perceived Ease Of Use, Perceived Security, Trust, Intention to Use, Digital Payment, E-Wallet Balipay

CITATION
INTRODUCTION

The rapid advancement of technology has fulfilled various desires and needs in society. This transformation has resulted in a paradigm shift in how people seek and obtain information. They are also no longer limited by conventional media channels such as newspapers, television or radio, but they will always expand the sources they get by including the internet. (Febrianti, 2021; Rahmawati and Narsa, 2019; Wardana et al., 2022). This progress can be seen based on data released by BPS in 2022, this data shows that the dominance of the internet accessed via smartphones in 2020 has reached 98.31% and has increased in 2021 by 98.70%, this increase is a sign of the transition process towards a widespread digital economy, so that this transition process can also influence the lifestyle of people in Indonesia (Dharmeswara et al., 2023). In this context, various regulations have been issued by Bank Indonesia through Bank Indonesia Regulation no. 20/6/BPI/2018, so BI has a very important role in encouraging various innovations developing in the digital financial services sector, including the development of non-cash payments (Fauzia and Sujono, 2020). The Hootsuite We Are Social (2023) shows data that among several payment transaction methods, the application of electronic wallets has experienced high growth, the highest growth has been achieved in 2021. This data emphasizes that there are several factors that can influence people to use digital wallets, so it is important to carry out the identification process of these factors to society. This relevance is increasing, along with the development of the digital economy of Indonesian society which is increasingly developing towards inclusiveness, so this is a reflection of society’s transition towards more modern and integrated payment methods.

This research process requires a variety of understanding regarding several interesting factors and the integration model carried out by TAM Davis (1989) so that TAM (Technology Acceptance Model) can be proven to be effective in explaining various concepts of differences in each individual, as well as preparing and adopting various technologies and information, so that they can be adapted to carry out analysis processes on various problems. Therefore, TAM is one of the analytical models that is often used in research related to the adoption of information technology (Rahmawati and Narsa, 2019). Various service applications, including health services, are one form of application of TAM (Shemesh and Barnoy, 2020), as well as applications for job vacancy recruitment (Mohd Amir et al., 2020), e-wallets (Aisyah, 2020; Arningsih et al., 2022; Purwinarti and Mariam, 2021), mobile banking (Ramli et al., 2021), as well as online shopping applications (Mollick et al., 2023). People’s goals or intentions in using e-wallets can also be categorized as one of the variables in behavioral intentions in technology acceptance theory (TAM), so this can happen because there is a separate intention for individuals to use e-wallets, so their intentions will have formed when they have been influenced by various perceptions and perceived usefulness related to using e-wallets as well as various forms of ease of use provided by users in using the latest technology (Aisyah, 2020). Arningsih et al. (2022). This also provides an indication of other factors that support a person’s intention to use an e-wallet, because of the sense of security and trust they give to the service provider platform. Security becomes a factor to be considered, especially in digital financial security (Yuliani and Amin, 2022). Moreover, according to Kiş and Tanova (2022), trust is fundamental in the digital era, especially in the adaptation process of its use.

This research uses the E-wallet Balipay as the object, a server-based electronic money application owned by PT. Bank Pembangunan Daerah Bali, launched in July 2022. Balipay has officially registered and obtained permission from Bank Indonesia, as evidenced by letter number 24/266/ DKSP/Srt/B (BPD Bali, 2023). This indicates the direct participation of regional financial institutions in the digitalization trend. The growth of Balipay users, from 4,753 on July 22, 2022, to 64,689 on January 23, 2023, shows an increase in Balipay e-wallet users. From this user data, it has yet to be ascertained whether each user has used this application to assist their activities. Research on the e-wallet Balipay is important because this application is still relatively new, so it is necessary to understand how much this application attracts user interest in non-cash transaction needs. Moreover, considering the tight competition with other e-wallet products in the Bali region, as revealed by the research of Kessa et al. (2023), it was found that Bank BPD Bali faces several challenges due...
to many existing e-wallet products. The majority of the target market in the Bali region has used e-wallet products from other companies. Therefore, it is necessary to evaluate the acceptance of the e-wallet Balipay and identify factors that can increase the use of this application.

Previous research has been conducted on technology acceptance using the TAM theory. Previous researchers have proven the influence of perceived usefulness on intention to use, including Naufaldi and Tjkrosaputro (2020) and Rahmawati and Narsa (2019). Different results were found by Astiti et al. (2023), which show that usefulness does not influence intention to use. Previous researchers have also proven the influence of perceived ease of use on intention to use (Aisyah, 2020; Wardana et al., 2022). Different results were found by Bilal and Andajani (2023) and Kurnia and Tandjaya (2023), whose research indicated that perceived ease of use did not affect intention to use. Some research conducted by Putra and Rachmat (2022), Kumala et al. (2020), and Purwiniarti and Mariam (2021) found that perceived security affects the intention to use. This differs from the findings of Ariningsih et al. (2022), who found that perceived security does not affect the intention to use. There are gaps from previous research between perceived usefulness, ease of use, and security against the intention to use, so researchers use trust as a mediating variable. This research also fills the GAP from Ariningsih et al. (2022), which has limitations in determining respondents, namely students, so this research develops from previous research by expanding the scope to target the general public to measure the intention to use an e-wallet.

Digital payment system innovations such as the Balipay e-wallet support the cashless society movement in Indonesia. However, given the relative novelty of this application, it is essential to understand user behavior when accepting new technology. This study introduces a novelty from the previous research by Ariningsih et al. (2022) by expanding the respondent sample to focus on students and the general public. It also presents an innovation from earlier research by Najib and Fahma (2020), which integrates perceived security and trust into the Technology Acceptance Model (TAM). This research is beneficial in providing additional references for literature and business practices, aiding companies or e-wallet service providers like Balipay in understanding and responding to user needs and preferences. If viewed from the explanation explained above, this research carried out various investigations of direct influences in terms of perceived usefulness, perceived ease of use, as well as perceptions in terms of security and trust based on intention to use. Various impacts arising from perceived usefulness, perceived ease of use, and perceived security on trust will be identified in this research, so that researchers will carry out tests regarding which beliefs can act as mediators to influence the relationship between perceived usefulness and perceived ease of use, and perceived security related to intention to use.

LITERATURE REVIEW

Technology Acceptance Model

The theory of evolution, which is often called the Theory of Reasoned Action (TRA), is one of the theories that makes the Technology Acceptance Model (TAM) the main basis (Sholilah and Nurhapsari, 2023). However, the evolutionary process included in this theory also explains and predicts various ways in which users receive the latest information. Previously, TAM was formulated by Davis (1989), so that it can prove effectively and widely that TAM can be accepted to be able to predict the adoption of currently developing technology. There are at least two factors that are the main factors in influencing a person's tendency to accept the latest technology, including perceived usefulness and ease of use. Chawla and Joshi (2019) have shown evidence that beliefs and perceptions about security can play an important role in users' use of e-wallets in India. Kurniawan et al. (2022). Furthermore, it should be emphasized that additional variable calculation processes are needed to develop a strong and robust technology acceptance model.

Perceived Usefulness

Usefulness can be measured from the usefulness felt by people when they apply a technology (Davis, 1989). This includes various conditions that a person has experienced when they use technology so that it can improve their performance and can help complete the various tasks given to them. (Perwitasari, 2022; Davis et al., 1989; Astuti and Prijanto, 2021).
Perceived ease of use
Davis (1989) and Kim and Tanova (2022) It should be emphasized that the perception of ease of use is measured by how easily someone can use the technology without excessive effort. Wardana et al. (2022) also contends that when an individual uses a system effortlessly, they experience a sense of perceived ease of use.

Perceived Security
Security aspects are among the factors individuals consider when adopting technology (Salimon et al., 2017). According to Purwiniarti and Mariam (2021), perceived security refers to the security experienced by users regarding protecting their data and ensuring that it will not be misused by unauthorized parties, including online payment service providers, during payment transactions.

Trust
Halim (2019) affirmed that trust is the cornerstone of a company’s relationships. Kotler and Keller (2016) further contend that trust represents an organization’s capacity to establish relationships and rely on its business partners. The absence of trust would imperil a company’s long-term survival (Singh and Sirdeshmukh, 2000)

Intention To Use
According to Izzuddin and Ilahiyyah (2022), interest is a state experienced by an individual when they have a desire to engage in activities that pique their curiosity. Intention to use refers to a user’s interest in utilizing a system, assuming they have access to the necessary information (Venkatesh et al., 2003). Intention to use can also be characterized as a product’s acceptance and ongoing use (Anouze and Alamro, 2020).

HYPOTHESIS DEVELOPMENT
Perceived Usefulness and Intention To Use
If individuals perceive the system as useful, they are more likely to use it. Izzuddin and Ilahiyyah (2022) have also highlighted that the benefit of transactions is a pivotal factor in whether users will continue to use digital applications or not. This finding aligns with research conducted by Rahmawati and Narsa (2019) and Naufaldi and Tjokrosaputro (2020), demonstrating that perceived usefulness significantly influences user intention (intention to use). Academic research conducted by Yang et al. (2021) on perceived usefulness and its impact on intention to use reveals a positive and significant influence on e-wallet users. Furthermore, the findings of this research are supported by research conducted by Ramli et al. (2021), he highlights that perception also has many benefits and have a higher positive impact. This is attributed to Mega Mobile banking customers in Jakarta intending to use the Mega Mobile banking application based on the perceived usefulness offered by the application. Building on prior research, the researcher formulates the following hypothesis:

H1: Perceived Usefulness Has a Positive Influence on Intention To Use.

Perceived Usefulness and Trust
Sarkar et al. (2020) have demonstrated a significant positive correlation between perceived usefulness and m-commerce user trust. These findings suggest that platforms that enhance user performance can foster greater customer trust. Examining the results of Sito-Putri and Iriani’s (2021) research concerning perceived usefulness and trust, a positive and significant impact of perceived usefulness on customer trust is evident. According to the respondents, this phenomenon is observed when they are on the move and require online solutions to meet their needs. In such instances, customers trust the Tokopedia application to fulfill these activities. Building on prior research, the researcher formulates the following hypothesis:

H2: Perceived Usefulness Has a Positive Influence on Trust.

Perceived Ease Of Use and Intention To Use
Perceived Ease Of Use, or the ease that users perceive when using the application, also holds the potential to influence their interest in using it (Chawla and Joshi, 2020). This aligns with Aisyah (2020), who similarly asserts that perceived ease of use positively affects the intention to use e-wallets, as users perceive that e-wallet technology simplifies financial transactions. The higher the perceived ease of use, the stronger the user’s intention to use it (Wardana et al., 2022). Building on prior research, the researcher formulates the following hypothesis:

H3: Perceived Ease of Use Has a Positive Influence on Intention To Use.
Perceived Ease Of Use and Trust
As per Davis (1989), perceived ease of use is linked to the extent to which individuals believe using a system is straightforward and understandable. This directly relates to minimizing difficulties and errors when utilizing the system. The findings from Nangin et al. (2020) reveal that perceived ease of use positively impacts trust. This is attributed to the commitment and dedication of website developers to ensuring ease of use, which instills confidence in customers regarding the company’s sincerity in conducting business. Drawing from the Setyorini et al. (2022) study, positive perceptions of the ease of use of the AR application contribute to an increase in customer trust levels in micro, small, and medium enterprises (MSMEs) in Ngerangan Village. Building on prior research, the researcher formulates the following hypothesis:

\[ H_4 : \text{Perceived Ease of Use Has a Positive Influence on Trust} \]

Perceived Security and Intention To Use
Perceived security is a measure that reflects a person’s confidence level in the security of the technology (Chawla and Joshi, 2019). Therefore, security is a critical concern associated with internet usage, particularly in digital payments. Thus, security is worthy of attention, especially in digital financial security (Yuliani and Amin, 2022). Research conducted by Mollick et al. (2023) yields result that indicate perceived security exerts a positive impact on the intention to use mobile commerce. Therefore, the hypothesis is as follows:

\[ H_5 : \text{Perceived Security Has a Positive Influence on Intention To Use} \]

Perceived Security and Trust
Perceived security constitutes a significant component of trust, as highlighted by (Mollick et al., 2023). In line with the findings by Nurhatinah (2018), consumer security in online transactions has a positive impact on online consumer trust in Padang City. This occurs because security assurances align with consumer expectations, leading them to willingly share their personal information with the seller and make purchases with a sense of security. Individual confidence in transaction security, particularly in digital payments, plays a pivotal role in financial transactions. Therefore, high perceived security is one of the factors contributing to increased trust. Consequently, the researcher formulates the hypothesis as follows:

\[ H_6 : \text{Perceived Security Has a Positive Influence on Trust} \]

Trust and Intention To Use
Customers require trust in the Mega Mobile Banking application before they are willing to use it Ramli et al. (2021). Najib and Fahma (2020) have substantiated a positive and significant impact of trust on the intention to use digital payments among SMEs in Bogor. This implies that the higher an individual trusts a service provider, the more interested they become in using it. Building on prior research, the researcher formulates the following hypothesis:

\[ H_7 : \text{Trust Has a Positive Influence on Intention To Use} \]

The Mediation Role of Trust
Trust plays a pivotal role in helping users overcome their apprehensions and supports them during the adoption of a product (Violinda and Khorunnisy, 2022). According to Budirahardjo and Laksmidewi (2022), trust represents users’ willingness to engage in digital transactions using mobile payments, making consumer trust a vital factor in adopting mobile payments. In their research, Kurniawan et al. (2022) observed that the impact of perceived usefulness and perceived ease of use on intention to use was mediated by trust, signifying that high levels of trust are fostered, ultimately promoting increased intention to use. Previous research results by Alademomi et al. (2019) indicated an indirect influence, wherein perceived security affected the intention to use, mediated by trust. Building on the foundation of previous research, the researcher formulates the following hypothesis:

\[ H_8 : \text{Perceived Usefulness Influences Intention To Use Mediated By Trust} \]
\[ H_9 : \text{Perceived Ease of Use Influences Intention To Use Mediated by Trust} \]
\[ H_{10} : \text{Perceived Security Influences Intention To Use Mediated By Trust} \]
Figure 1. Conceptual Framework

Table 1. Construct and Indicators

<table>
<thead>
<tr>
<th>Variable</th>
<th>Indicator</th>
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<tbody>
<tr>
<td>Perceived usefulness (PU)</td>
<td>Work more quickly (PU1)</td>
</tr>
<tr>
<td></td>
<td>Job Performance (PU2)</td>
</tr>
<tr>
<td>(Davis, 1989; Indriyarti et al., 2023)</td>
<td>Effectiveness (PU3)</td>
</tr>
<tr>
<td></td>
<td>Make Job Easier (PU4)</td>
</tr>
<tr>
<td></td>
<td>Useful (PU5)</td>
</tr>
<tr>
<td>Perceived Ease Of Use (PEU)</td>
<td>Easy To Learn (PEU1)</td>
</tr>
<tr>
<td>(Davis, 1989)</td>
<td>Controllable (PEU2)</td>
</tr>
<tr>
<td></td>
<td>Flexibility (PEU3)</td>
</tr>
<tr>
<td></td>
<td>Easy To Use (PEU4)</td>
</tr>
<tr>
<td>Perceived Security (PS)</td>
<td>There is no need to worry when providing information (PS1)</td>
</tr>
<tr>
<td>(Waspada, 2012)</td>
<td>Confidence in receiving protection for the provided information (PS2)</td>
</tr>
<tr>
<td></td>
<td>Trust that money stored in electronic devices is guaranteed during transactions (PS3)</td>
</tr>
<tr>
<td>Trust (TRU)</td>
<td>Ability (TRU1)</td>
</tr>
<tr>
<td>(Suh and Han, 2002)</td>
<td>Integrity (TRU2)</td>
</tr>
<tr>
<td></td>
<td>Goodwill (TRU3)</td>
</tr>
<tr>
<td>Intention To Use (ITU)</td>
<td>Desire to use (ITU1)</td>
</tr>
<tr>
<td>(Jogiyanto, 2007)</td>
<td>Always attempting to use (ITU2)</td>
</tr>
<tr>
<td></td>
<td>Intending to continue using it in the future (ITU3)</td>
</tr>
</tbody>
</table>

METHOD

This research employs a quantitative method with non-probability sampling, specifically an incidental sampling technique. The sample category consists of users who have conducted transactions through the Balipay e-wallet application.
and are located in Bali, totaling 180 users. According to (Ferdinand, 2014), the sample size is determined by multiplying the number of indicators by 5-10. In this study, the number of samples used was calculated as follows: Number of Samples = Number of Indicators * 10, which results in 18 * 10 = 180 samples. Data was collected by distributing questionnaires via online surveys using the Google Form platform. The questionnaire employs an interval data measurement scale, specifically a differential semantic scale, used for surveying individual attitudes and characteristics (Sugiyono, 2015). The analysis in this research includes descriptive analysis using the SPSS statistical application as well as inferential statistical analysis employing the structural equation model (SEM), including an evaluation of the measurement model (outer model), structural analysis of the model (inner model), and hypothesis testing using the partial least squares software (PLS).

Variable Operational Definitions

Perceived usefulness pertains to understanding the benefits the Balipay mobile application offers its users. Perceived Ease of Use focuses on gauging the ease of using the Balipay mobile application as perceived by its users. Perceived security represents the assurance of safety provided to consumers by the e-wallet, aimed at fostering satisfaction and trust among Balipay e-wallet users. The concept of trust here pertains to the user’s confidence in the Balipay e-wallet as an electronic transaction platform. Intention to use refers to an individual’s desire to utilize the Balipay e-wallet application for payment purposes.

RESULTS

Respondent Characteristics

This research involved 180 respondents, as justified in the methodology section. Data analysis commenced with a comprehensive examination of the respondents’ characteristics, encompassing gender, age, educational level, occupation, and the extent of Balipay usage. The goal was to discern how diverse backgrounds might influence responses to the previously presented questionnaire items (indicators). According to the data, the average Balipay e-wallet user is female. Additionally, the majority falls within the age range of 21–34, comprising 52.2% of the sample. In terms of education, 46.1% of Balipay e-wallet users are graduates. Among the surveyed locations, Denpasar prevails as the primary city of residence, representing 25% of the sample. As for the duration of Balipay e-wallet usage, most respondents (42.8%) reported using it for less than three months.

Measurement Model Analysis or Outer Model

The results of the convergent validity test, as indicated by the loading factor values, demonstrate that each construct (ITU, PU, PEU, PS, and TRU) has a value greater than 0.7. It is shown that each indicator can effectively explain the construction in a study. In addition to factor loading, convergent validity can also provide value by examining the values found in Average Variance Extracted (AVE). For each variable, an AVE value of at least 0.5 is required, so if a variable has an AVE value exceeding 0.5, it can be concluded that the variable has achieved convergent validity (Adelekan et al., 2018). In this study, if the AVE value for all variables exceeds 0.5, then this indicates that the threshold value for convergent validity has been met. Meanwhile, discriminant validity can be evaluated by comparing the square root obtained from the average variance that has been extracted (√AVE) in each construct with the correlation obtained between that construct and other constructs while it is still in the model. This model tends to assume that discriminant validity can be more adequate, if the square root of the AVE in each construct tends to be greater when compared to the correlation that occurs between that construct and other constructs (Fornell and Larcker, 1981). This research found that the square root of AVE has a tendency to be relatively greater when compared to the correlation that exists in latent variables, so that this can fulfill the existing criteria for discriminant validity and can provide and confirm the validity of the latent data that has been obtained previously. The reliability that occurs in a construct can be measured using reflective indicators, so that an assessment can be given to a construct to be measured using reflective indicators, as well as values obtained through two methods, namely: Cronbach’s alpha and Composite Reliability (Ghozali and Latan, 2015). Both composite reliability and Cronbach’s alpha both have values that tend to be greater than 0.7, so this indicates a higher level of reliability in the measurement model.
Table 2. Respondent Characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>88</td>
<td>48.9%</td>
</tr>
<tr>
<td>Female</td>
<td>92</td>
<td>51.1%</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;20 years old</td>
<td>55</td>
<td>30.6%</td>
</tr>
<tr>
<td>21-30 years old</td>
<td>94</td>
<td>52.2%</td>
</tr>
<tr>
<td>31-40 years old</td>
<td>25</td>
<td>13.9%</td>
</tr>
<tr>
<td>&gt;40 years old</td>
<td>6</td>
<td>3.3%</td>
</tr>
<tr>
<td>Education</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Elementary School</td>
<td>1</td>
<td>0.6%</td>
</tr>
<tr>
<td>Junior High School</td>
<td>1</td>
<td>0.6%</td>
</tr>
<tr>
<td>Senior High School</td>
<td>73</td>
<td>40.6%</td>
</tr>
<tr>
<td>Diploma</td>
<td>21</td>
<td>11.7%</td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>83</td>
<td>46.1%</td>
</tr>
<tr>
<td>Master's Degree</td>
<td>1</td>
<td>0.6%</td>
</tr>
<tr>
<td>domicile</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Denpasar</td>
<td>45</td>
<td>25%</td>
</tr>
<tr>
<td>Badung</td>
<td>36</td>
<td>20%</td>
</tr>
<tr>
<td>Buleleng</td>
<td>18</td>
<td>10%</td>
</tr>
<tr>
<td>Giayar</td>
<td>19</td>
<td>10.6%</td>
</tr>
<tr>
<td>Jembrana</td>
<td>9</td>
<td>5%</td>
</tr>
<tr>
<td>Karangasem</td>
<td>25</td>
<td>13.9%</td>
</tr>
<tr>
<td>Klungkung</td>
<td>14</td>
<td>7.8%</td>
</tr>
<tr>
<td>Tabanan</td>
<td>14</td>
<td>7.8%</td>
</tr>
<tr>
<td>Based on the period of using fintech</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 3 months</td>
<td>77</td>
<td>42.8%</td>
</tr>
<tr>
<td>3-6 months</td>
<td>61</td>
<td>33.9%</td>
</tr>
<tr>
<td>6-12 months</td>
<td>42</td>
<td>23.3%</td>
</tr>
<tr>
<td>Job</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Student/college student</td>
<td>76</td>
<td>42.2%</td>
</tr>
<tr>
<td>Civil servants</td>
<td>41</td>
<td>22.8%</td>
</tr>
<tr>
<td>Entrepreneur</td>
<td>41</td>
<td>22.8%</td>
</tr>
<tr>
<td>Private Sector Employee</td>
<td>9</td>
<td>5%</td>
</tr>
<tr>
<td>Village official</td>
<td>1</td>
<td>0.6%</td>
</tr>
<tr>
<td>Police Officer</td>
<td>12</td>
<td>6.7%</td>
</tr>
</tbody>
</table>

**F-Square (F²)**

F-square analysis functions to evaluate the influence of exogenous variables on endogenous variables, as well as mediating variables on endogenous variables (Y). Several criteria determine the value of the effect, namely as follows: a value above 0.35 is a value that is considered strong, a value obtained between 0.15 and 0.35 is a value that is considered moderate, and a value obtained from a value below 0.02 tends to be considered weak (Cohen et al., 1998). Values below 0.02 are typically disregarded as having no effect (Sarstedt et al., 2017). Based on F square analysis, it is evident that certain effects exhibit a strong effect size with
F square values exceeding 0.35. Notably, the influence of perceived usefulness (PU) on intention to use (ITU) ($F^2 = 0.900$) and trust (TRU) on ITU ($F^2 = 1.038$) is both categorized as strong. No effects in this study fall within the medium effect size category (0.15–0.35). Conversely, the effects of perceived security (PS) on ITU ($F^2 = 0.034$), perceived usefulness (PU) on trust (TRU) ($F^2 = 0.092$), perceived ease of use (PEU) on trust (TRU) ($F^2 = 0.089$), and perceived security (PS) on trust (TRU) ($F^2 = 0.124$) are characterized as weak due to their F square values falling within the range of 0.02 to 0.15. Meanwhile, the influence of PU on ITU, with a score of $F^2 = 0.000$, is ignored because it possesses an F square value of less than 0.02.

**R-Square ($R^2$)**

The $R^2$ coefficient test is employed to assess the research model's ability to account for variations in endogenous variables. R-squared ($R^2$) values falling within the range of 0.19, 0.33, and 0.67 are categorized as low, moderate, and high, respectively (Duryadi, 2021). The R-Square value for the intention to use the construct is 0.782. This result indicates that 78.2% of the variance in the intention to use can be elucidated by the constructs of perceived usefulness, perceived ease of use, perceived security, and trust, signifying a high level of influence. Subsequently, the R-square value obtained for the trust construct is 0.290. This value suggests that the collective impact of perceived usefulness, perceived ease of use, and perceived security on trust accounts for 29% of the variance, representing a low level of influence.

**Q-Square ($Q^2$)**

A Q-square ($Q^2$) value $> 0$ indicates a good predictive value, signifying a high level of observation in the study. Conversely, if the Q-square ($Q^2$) value is $< 0$, it suggests a poor predictive value, indicating a low level of observation (Duryadi, 2021). Based on $Q^2$, the intention to use construct has a $Q^2$ value of 0.489, while the trust construct has a $Q^2$ value of 0.194. These values denote good and high predictive relevance, respectively.

**Model Fit**

The model's suitability in this research is assessed using SRMR and NFI values. To meet the model fit criteria, the SRMR value, as suggested by Cangur and Ercan (2015), should be less than 0.05. According to the SMART PLS website, the NFI score ranges from 0 to 1, with values closer to 1 indicating a better-fitting model. This research observed an SRMR value of 0.045, less than 0.05, and an NFI value of 0.879 (close to 1) (Ringle et al, 2024). Therefore, the data accurately represents the overall model, and the model fits the data well.

**Table 3. Hypothesis Testing**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Original sample (O)</th>
<th>$T$ statistics</th>
<th>P value</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>PU→ITU</td>
<td>0.474</td>
<td>7.529</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>PU→TRU</td>
<td>0.262</td>
<td>2.848</td>
<td>0.004</td>
<td>Supported</td>
</tr>
<tr>
<td>PEU→ITU</td>
<td>0.001</td>
<td>0.033</td>
<td>0.974</td>
<td>Not Supported</td>
</tr>
<tr>
<td>PEU→TRU</td>
<td>0.258</td>
<td>2.212</td>
<td>0.027</td>
<td>Supported</td>
</tr>
<tr>
<td>PS→ITU</td>
<td>0.093</td>
<td>1.760</td>
<td>0.079</td>
<td>Not Supported</td>
</tr>
<tr>
<td>PS→TRU</td>
<td>0.300</td>
<td>2.626</td>
<td>0.009</td>
<td>Supported</td>
</tr>
<tr>
<td>TRU→ITU</td>
<td>0.564</td>
<td>8.708</td>
<td>0.000</td>
<td>Supported</td>
</tr>
<tr>
<td>PU→TRU→ITU</td>
<td>0.148</td>
<td>2.683</td>
<td>0.007</td>
<td>Supported</td>
</tr>
<tr>
<td>PEU→TRU→ITU</td>
<td>0.146</td>
<td>2.112</td>
<td>0.035</td>
<td>Supported</td>
</tr>
<tr>
<td>PS→TRU→ITU</td>
<td>0.169</td>
<td>2.413</td>
<td>0.016</td>
<td>Supported</td>
</tr>
</tbody>
</table>
The research utilizes a significance level of 0.05 (α = 5%), where the statistical T-value and P-value determine the significance of the relationship between variables. The acceptance or rejection of hypotheses is contingent on meeting the criteria of a p-value < 0.05 or a t-statistic > 1.96 for direct influence hypotheses. In the case of indirect influence hypotheses, acceptance relies on the specific value of the indirect influence. The results of hypothesis testing indicate that the influence of perceived usefulness on intention to use is 0.474, with a t-statistic value of 2.626 and a p-value of 0.001, thus confirming that H1 is supported. The impact of perceived usefulness on trust is 0.262, with a t-statistic value of 2.848 and a p-value of 0.004, confirming that H2 is supported. The effect of perceived ease of use on intention to use is 0.001, with a t-statistic value of 0.633 and a p-value of 0.474, resulting in the rejection of H3. Conversely, the impact of perceived ease of use on trust is 0.258 with a t-statistic value of 2.212 and a p-value of 0.027, supporting H4 is supported. The influence of perceived security on intention to use is 0.093, with a t-statistic value of 1.760 and a p-value of 0.079, leading to the rejection of H5. On the other hand, the effect of security on trust is 0.300, with a t-statistic value of 2.626 and a p-value of 0.009. Thus, H6 is supported. The impact of trust on the intention to use is 0.564, with a t-statistic value of 8.708 and a p-value of 0.000, confirming that H7 is supported. Perceived usefulness indirectly influences intention to use through trust, with an indirect influence value of 0.148, a t-statistic of 2.683, and a p-value of 0.007, supporting H8 is supported. Similarly, perceived ease of use indirectly influences intention to use through trust, with an indirect influence value of 0.146, a t-statistic of 2.112, and a p-value of 0.035, confirming that H9 is supported. Lastly, perceived security indirectly affects intention to use through trust, with an indirect influence value of 0.169, a t-statistic of 2.413, and a p-value of 0.016. Thus, H10 is supported.

DISCUSSION
Perceived Usefulness and Intention To Use
The results of this study show that perceived usefulness has a positive and significant effect on the intention to use. This means that in this study, perceived usefulness influences the intention to use Balipay in Bali, with an increase in perceived usefulness affecting users' intention to use the Balipay application. Based on research conducted by Indriyarti et al. (2023), there is a positive assessment obtained from the benefits that have been felt previously, these benefits include transaction services that are carried out quickly, so that they can encourage someone's interest in being able to use technology well. Therefore, the usefulness can improve the performance of its users, such as transactions carried out more quickly and efficiently using the Balipay e-wallet, so that services like this can lead to increased intentions to use e-wallets. This finding is in line with research conducted by Rahmawati and Narsa (2019). Both of them conducted an investigation into people's behavior in using e-learning among Airlangga University students. This research found that the intention to use technology has a positive influence, so this can show that all students use e-learning as a media that has benefits to support their education, so they tend to use this media. Academic research findings related to the perceived usefulness and intentions of e-wallet users show that there is a positive and high influence regarding the use of e-wallets, so that users have confidence in the benefits of using e-wallets directly, so that these benefits can influence users' desire to participate in adopting and using this technology (Yang et al., 2021).

Perceived Usefulness and Trust
The results obtained from this research indicate that there perceived usefulness that have a positive and high influence regarding trust, compatibility, and views conveyed in line with the perspective Davis's (1985). Davis posited that an individual's perception of technological benefits significantly impacts their trust level. In essence, if individuals believe their technology is beneficial and meets their needs, their trust in the technology will increase significantly. Specifically, in the Balipay application context, the benefits users perceive can positively affect their trust levels. The higher the users perceive its usefulness, the greater their trust in the Balipay e-wallet. The results obtained from this research also support the findings from previous research, such as research conducted by Sarkar et al. (2020). This research shows that there is a good and positive relationship that oc-
curs between perceptions in terms of benefits and the trust that users have in m-commerce. So, this shows that an online shopping platform can improve the performance of customers as well as increase customer trust, Sito-Putri and Iriani (2021)

Both found the same influence between perceived usefulness and trust, especially when customers can fulfill their online needs through online shopping applications such as Tokopedia. In addition, research conducted by Faizah and Sanaji (2022) strengthens the findings in this research by proving that there is a correlation between perceived usefulness and public trust.

**Perceived Ease Of Use and Intention To Use**

This research provides a conclusion that perceived ease of use has a less significant influence compared to intention to use, as shown in the statistical T value. So, this shows that the perception of ease of use tends not to have a direct impact on the intention to use it itself. So, the data obtained from this research can show that the majority of respondents who have a higher educational background tend to be familiar with technology, perception and ease of use tend not to have a significant influence on their intention to use Balipay e-wallet services. The findings from this research tend to be consistent with research conducted previously by Kurnia and Tandijaya (2023). They stated that perceived ease of use tends not to have a significant influence on the intention to use the Jago application, which is a banking application. Respondents also said that the Jago application tends to provide offers and benefits in terms of payment transactions, so they tend to ignore various challenges related to the usability of the application itself, Bilal and Andajani (2023) have found that perceptions in terms of ease of use also do not tend to have a significant impact on the intention to use solar panels on the roofs of Indonesian people's houses.

**Perceived Ease Of Use and Trust**

This research has shown that perceptions of ease of use tend to have a positive and significant influence regarding trust, indicating that the easier it is to use the Balipay e-wallet application, the greater the trust that users gain. Nangin et al. (2020) have found that there are various efforts made by website developers which are a commitment to building good relationships with their customers and helping to build trust for their users. The results obtained also tend to be consistent with previous research by Setyorini et al. (2022), who said that the perception of ease of use had a positive and significant influence on their trust, so they also found that the convenience obtained directly from the AR application could also increase customers' trust in MSMEs in Ngerangan village. The positive impact obtained can help to attract new buyers and retain existing customers, so that MSMEs that adopt this technology can provide a unique experience through the AR application because it can display various guides from travel, area maps, recommendations for places to eat, to various information related to tourist attractions. All of this contributes to attracting tourists to Ngerangan Village.

**Perceived Security and Intention To Use**

The research results obtained also show that perceptions in terms of security tend not to have a significant influence on intentions to use the Balipay e-wallet. Most of the respondents are highly educated, they have sufficient awareness regarding their digital security, so it is possible for them to understand various ways to protect them and participate in developing various approaches that are carried out wisely regarding transactions carried out online, this causes a lack of emphasis related to perceptions of security. This study reveals that users prefer and prioritize benefits and trust when using the Balipay e-wallet. This is evidenced by the path coefficients, where perceived usefulness and trust dominate the intention to use. Consequently, users may feel that if using the Balipay e-wallet is beneficial and they trust the platform, security perceptions are not a primary concern in their decision to use it.

These findings align with those of Arining-sih et al. (2022), who observed that perceived security does not influence e-wallet usage intentions among students at the Faculty of Economics, Muhammadiyah University of Purworejo, Central Java. Similarly, the research by Wandira and Fauzi (2022) also demonstrated that perceived security does not significantly impact usage intentions. These results suggest that respondents do not view security as a crucial factor in mobile banking applications or that security is not the primary determinant of users' use.
Perceived Security and Trust

The findings in this research are evidence that perceptions in terms of security will have a more positive and significant impact on the level of trust obtained by customers, so the level of trust obtained by other users in the Balipay digital wallet will tend to increase, especially when they have experienced it. higher level of security provided by the platform. So, in simple terms, the higher the level of perception of users regarding the security of a platform, the greater the level of trust they will give to the Balipay e-wallet. Apart from that, this research also provides a form of confirmation which states that the perception of security felt by users is also one of the main components which is the key to the trust generated by users. The findings of this research are consistent with the findings produced by Mollick et al. (2023), they highlight the various important roles of perceptions in terms of security that can build trust in the platform. Nurhatinah (2018), Apart from that, this research has also found the fact that the security obtained from online transactions also has a positive impact on the trust gained from consumers in Padang City. This impact arises because users feel that they have full security guarantees, so they tend to feel more comfortable and can provide various personal information that they have so that they can make various purchases safely.

Trust and Intention To Use

The fact that trust also has a positive and significant influence, which is obtained from the user's intention to use the Balipay e-wallet. Apart from that, the higher the level of trust obtained by users, the greater the possibility that users will continue to adopt various technologies, so that they can help service providers to always build stronger and closer relationships with their users. Based on this explanation, then Ramli et al. (2021) found that the trust gained from users has a positive and significant influence on their intention to use digital payment systems, this shows that both restaurant owners and providers in Bogor tend to have higher trust in making payments online digital, so they will tend to adopt the technology brought. Likewise, research conducted by Romdhoni shows that the trust obtained also has a significant influence and has a positive influence on users' intentions to use e-money on the people in Boyolali.
veniences for users, in terms of security and use itself, so that they can build trust in the users towards the system and can influence their intentions to use the service. Gained trust is an important role needed to mediate this relationship.

IMPLICATIONS
Theoretically, this research contributes by developing a model encompassing several variables, including perceived usefulness, perceived ease of use, perceived security, trust, and intention to use. This helps bridge knowledge gaps in the existing literature and adds to the body of knowledge regarding adopting new technology. In practical terms, this research offers valuable insights for e-wallet service providers like Balipay to understand user behavior better. Service providers should recognize that e-wallet users prioritize the benefits they receive from using the service. Therefore, providers should continually enhance incentive programs, such as cashback, discounts, or special promotions, to enhance the perceived usefulness for users. Furthermore, establishing trust forms the foundation for long-term e-wallet usage. Service providers should take tangible measures to build user trust, including increasing transparency regarding security and privacy policies.

RECOMMENDATIONS
The company can also attract various existing interests in its users to use e-wallets, with the main focus on the benefits that will be offered in this service, so that this can make it easier for its users to carry out transaction processes. The approach taken is also likely to increase the trust gained from users to encourage use of the platform. Apart from that, the trust given to users can also be increased by ensuring the speed of the transaction process, the ease obtained from using the application, as well as maintaining various information while using e-wallet. Research conducted in the future could also be a consideration in alternative application or technology models, such as the Unified Theory of Acceptance and Use of Technology (UTAUT), which can provide a wider perspective to understand the various factors that can influence acceptance and use of e-wallet technology. Including various additional factors from social, psychological or cultural aspects is also an equally important thing which aims to help understand the various factors that can influence the behavior of users towards technology. Future research can be carried out by enriching the use of various samples which tend to be larger and more representative in various backgrounds and regions, so that this can increase accuracy and generalize the findings obtained. The approach taken will also result in an understanding that tends to be more complete and more detailed regarding the various factors involved in adopting and using e-wallet technology, so that this can provide a better guide for developing marketing-related strategies and policies, better and more effective in the future.

There are several limitations to this research. These limitations are worth considering when conducting further research, which may involve exploring different models or theories, such as the Unified Theory of Acceptance and Use of Technology (UTAUT). Additionally, incorporating other variables, such as social, psychological, or cultural factors, could help enhance our understanding of the factors influencing technology adoption. Apart from that, it is also recommended to use a larger sample and a more representative sample, this aims to increase the accuracy obtained from the research process.

CONCLUSIONS
This research aims to reveal the positive and significant relationship that exists between perceptions in terms of usefulness, trust, and intentions for using the Balipay e-wallet. In particular, the level of trust shown was also higher, as well as the perception in terms of the benefits they received from adopting this technology. The findings in this research have played an important role in developing various features and can provide various benefits that have been felt by users and the trust that users have in electronic wallets. Even so, the results of the research conducted also show that perceptions in terms of ease of use and perceptions in terms of security also do not have a significant impact on users’ intentions to use the Balipay e-wallet. Although all the factors described previously are not the main factors that can have a direct influence on users’ intentions to use e-wallets. Interestingly, further analysis can show that there is a positive and significant correlation between the perceptions in terms of usefulness, perceptions in terms of ease of use, and perceptions in terms of
security to trust gained by users. So, in this way, the higher the perception that users get regarding the perceived usefulness, ease of use, and security obtained from the Balipay e-wallet, the higher the trust they get and their intention to use the e-wallet. The findings in this research also confirm how important the role of intention to use is in the adoption of new technology, where the trust gained will act as a mediation to be able to influence the intention of users to be able to use the Balipay e-wallet.

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