MMS
Marketing Management Studies

Marketing Management Studies 3 (3) 2023: 228-240

Marketing Management Studies

http://jkmp.ppj.unp.ac.id/index.php/mms

ISSN: 2798-4389; e-ISSN: 2798-4397

Perceived risk, trustworthiness, and security in E-wallet adoption: a study of DANA in West Sumatra

Difa Trevina Kinanti[1*], Rahmiati[1]

[1] Departement of Management, Faculty of Economic and Business, Universitas Negeri Padang, Padang, Indonesia

ARTICLE INFO

Received 15 August 2023
Accepted 5 September 2023
Published 30 September 2023

Keywords:
E-wallet; perceived risk; perceived trust; perceived security; intention to use

ABSTRACT

This study aims to analyze the effect of perceived risk, perceived trust, perceived security on the intention to use DANA E-wallet in West Sumatra. The population in this study are people who use the DANA E-wallet in West Sumatra. This study involved 210 respondents as a sample. Data collection was carried out by distributing online questionnaires, and data was processed using SmartPLS software. The findings of this study indicate that (1) Perceived Risk has a negative but not significant effect on Perceived Trust, (2) Perceived Security has a positive and significant effect on Perceived Trust, (3) Perceived Risk has no negative and not significant effect on Intention to use, (4)) Perceived Trust has a positive and significant effect on intention to use and (5) Perceived Security has a positive and significant effect on Intention to use.

How to cite: Kinanti, D.T., & Rahmiati, R. (2023). Perceived risk, trustworthiness, and security in E-wallet adoption: a study of DANA in West Sumatra. *Marketing Management Studies, Vol 3 (3)*, 228-240. DOI: 10.24036/mms.v3i3.406

* *Corresponding author:* *e-mail: trevinadifa11@gmail.com*

INTRODUCTION

The industrial revolution 4.0 is a phase in digitalization, supported by information and communication technology. Innovation in this sector has led to increased usage of digital technology, impacting lifestyles and convenience. As technology develops, transactions can now be carried out using digital payments, transforming cash-based payments into a more efficient and convenient option.

Digital payments are electronic transactions where money is stored, processed, and received in digital form. They are based on software and include money transfer applications, network infrastructure, and usability rules. Popular types of digital payments include mobile banking, SMS banking, internet banking, and e-wallets. Changes in consumer preferences, time savings, and technological advancements have led to a shift towards digital payments. E-wallets, a form of fintech, are an alternative to online payment methods and can be used for various transactions, including transfers, online purchases, and tax payments. Popular e-wallets in Indonesia include Go-pay, DANA, OVO, Shopee Pay, Linkaja, i.Saku, OCTO Mobile, Doku, my pocket, and JakOne Mobile.

According to the Populix survey in 2022, DANA is included in the 10 e-wallets most frequently used by the public (Goodstats.id 07/08/2022). But the DANA e-wallet still has its own challenges in facing problems. Such as the existence of fraud modes, information about obstacles that cannot make transactions, and server disruptions that cause problems for DANA e-wallet users (DANA.id 15/12/2020). E-wallet competition is getting tighter, the many types of e-wallets that are diverse make people free to determine the e-wallet they like which makes intense competition between various e-wallets. For example, in terms of users, promotions, discounts, and the number of partners (Katadata.co.id 07/10/2019).

Intention to use a platform indicates its ability to survive in the market, as it attracts enthusiasts. DANA e-wallet intention is influenced by perceived risk, which refers to the customer's perception of potential negative consequences or loss. This perceived risk influences prospective users' decision to use the platform. Perceived risk refers to consumer uncertainty when using a product or service. According to Wu et al. (2017) identified five dimensions of perceived risk: financial, privacy, performance, psychological, and time. The DANA e-wallet faces financial risk, with disruptions in transactions and transfers. Addressing these complaints is crucial for the DANA e-wallet to ensure consumer trust and satisfaction.

Perceived trust is a belief that helps consumers overcome risks and feel safe in adopting new products or technologies. Higher consumer trust increases the decision to make a purchase of a product. Trust indicators include ability, benevolence, and integrity. Issues in electronic payments include lack of usability, security, e-cash problems, trust, user perceptions, and awareness. High trust affects the desire to use DANA e-wallet, as higher trust increases likelihood of using the e-wallet. Several indicators in written by (Mayer et al., 1995) are as follows: 1) Ability, 2) Benevolence, 3) Integrity.

Perceived security is crucial for businesses, as it provides convenience, increases consumer trust, and boosts sales. It aims to create a safe and comfortable transaction process, benefiting both buyers and sellers. Security measures include information security, preventing malicious attacks, and ensuring confidentiality. High consumer perception of security positively influences trust in mobile payment procedures. Security guarantees, such as those offered by DANA e-wallet, can increase consumer confidence in shopping. DANA offers a guarantee for transactions with premium accounts, ensuring customers can report losses within 15 working days.

LITERATURE REVIEW

Theory of Planned Behavior (TPB)

This theory has a foundation on a belief perspective that can influence a person to carry out specific behaviors. The belief perspective is carried out through the incorporation of various characteristics, qualities and attributes of certain information which then form the will to behave (Yuliana, 2004). Intention is a decision to behave in a desired way or a stimulus to carry out an action, either consciously or unconsciously (Corsini, 2002). This intention is the beginning of the formation of a person's behavior. The theory of planned behavior is appropriate to describe any behavior that requires planning (Ajzen, 1991). Theory of Planned Behaviour is based on the assumption that humans are rational beings and use information that is possible for them, systematically. People will think about the implications of their actions before they decide to use a system.

Based on this theory, the most important determinant of a person's behavior is the intention to behave. An individual's intention to perform a behavior is a combination of attitude to perform the behavior and subjective norms. An individual's attitude towards a behavior includes beliefs about a behavior, evaluation of behavioral outcomes, subjective norms, normative beliefs and motivation to comply. Attitudes and subjective norms are measured by scales (e.g. Likert scale/rating scale) using the phrases like/dislike, good/bad, and agree/disagree. Intention to perform a behavior depends on the results of measuring attitudes and subjective norms. Positive results indicate behavioral intention. Theory of Planned Behaviour is based on the assumption that humans are rational beings and use information that is possible for them, systematically. People will think about the implications of their actions before they decide to use a system.

Intention to Use

Intention to use is a far-reaching plan regarding whether to perform a pattern of behavior in the future (William and Shailesh, 2022). Intention to use including new or initial use, continued use or ongoing intention is often referred to as loyalty or repurchase. This is consistent with other meta-analyses that use intention to use as a criterion to measure (e.g. Cram et al., 2019; Liu et al., 2019).

Factors that influence the intention to use according to Kassim and Abdullah (2006):

1). Ease of use
2). Trust
3). Secure
4). Private
5). Perceived Risk

The benefits that someone will get from using an e-wallet (Asmaaysi, 2022):

1. Financial transactions can be completed more quickly
2. Prevent criminal acts and the circulation of counterfeit money in society
3. Prevent transmission of the COVID-19 virus

According to Aji et al (2020), there were 3 indicators on someone's intention to use, the following are:

1. Desire to use
2. Tendency to use
3. Sustainability for using in the future

Perceived Risk

Perceived Risk is defined to be the potential for incurring losses in securing anticipated outcomes using electronic forms of service. This includes risks associated with performance, finance, time, psychology, social, privacy, and a combination of all of the above (Featherman and Pavlou, 2003). In particular, Zhou (2013) argues that mobile payments are fraught with risk and uncertainty due to their vulnerability to hacking and misuse of information. A consumer's understanding of risk is associated with feelings of uncertainty regarding the potential outcomes of certain behaviors (Slade et al., 2013). There are five types of risk perception according to Wu et al., (2017):

1) Perceived Financial risk: Perceived Financial risk is the most important factor in consumption, as it suggests potential purchase loss or repair costs. Factors influencing perceptions include probability of loss, yield of gains or losses, and unstable income. Perceived financial risk can hinder behavioral intentions, so choosing safety and benefits can help avoid these risks.
2) Perceived privacy risk: Refers to an individual's willingness to share personal data, which can lead to potential privacy hazards. Consumers are focused on gathering personal information, without their knowledge, and perceptions of privacy risk, particularly secondary information, reduce trust. Privacy risk involves the possibility of personal information being disclosed and misused, making consumers feel insecure when using new technologies.
3) Perceived performance risk: Performance Risks In addition to losses due to user error or security flaws leading to loss or theft, mobile payment services can experience malfunctions in terms of payment processing and incorrect account balances (Lewis and Spyrakopoulos 2001). Users often experience malfunctions or incorrect payment applications, which makes parties uneasy due to their inability to complete the intended payment (Moneycontrol 2018).
4) Perceived psychological risk: Refers to consumers experiencing frustration or discomfort from complicated m-payment transactions, potentially impacting their peace of mind and self-perception. Studies show discomfort and anxiety are common feelings.
5) Perceived time risk: Refers to potential wasted or lost time from m-payment transaction errors, such as signal unavailability or transaction speed issues. It also includes consumer waiting periods for purchases, causing uncertainty and potential long purchase times.

According to (Wu et al., 2017), the indicators of perceived risk are:

1. Financial Risk
2. Privacy Risk
3. Performance Risk
4. Psychological Risk
5. Time Risk

Perceived Trust

Trust is crucial for customers to use mobile payments, as perceived risks prevent them from using platforms. Building trust in service providers increases continued use and reduces perceived risk. Trust can be viewed from various perspectives, including government, companies, peers, technique, reputation, mobility, pleasure. Building trust on third-party platforms is essential to the continuity on mobile payment apps.

Factors Affecting Trust :

1) Satisfaction: The trust given by buyers to a company or product will be greater where the satisfaction of who is allowed by company or product for consumers is greater. Thus the level of trust is a consequence of the company's capacity to meet client needs (Selnes, 1998).
2) Perceived Reputation: Providing confidence to other parties regarding by goodwill, ability, integrity, goodwill, also ability. People's trust is really important, especially with those who get interacted previously. (McKnight et al., 1998).

According to (Mayer et al., 1995), the indicators of perceived trust are:

1. Ability
2. Benevolence
3. Integrity

Perceived Security

Perceived security in mobile applications is crucial for influencing behavioral intention, customer satisfaction, and the effectiveness of privacy policies. Studies show how perception from the customers about critical in eliminating chances to connect with application use. If customers know about a valid company policy about privacy, users are more likely to download and use mobile applications. Additionally, negative effects on privacy risks and financial risks negatively get based on the image of the food delivery services. Higher security ensures that personal data is protected from loss or theft by third parties, leading to more customers using and recommending food delivery apps.

According to Lisana (2021), the indicators of perceived security are:

a. Trustworthy
b. Protect financial information
c. Protect personal information
d. reliable

E-Wallet

E-wallets are mobile applications that use smartphones as wallets for financial transactions, supporting credit card payments and relying on near-field communication technology. The global use of e-wallets is expected to increase to $10 trillion by 2025, with the industry still in its infancy. However, some consumers are reluctant to accept or continue using e-wallets due to negative feelings and potential illusions of liquidity. E-wallets may also generate less transparent payments, making them easier to spend. Despite these about link with e-wallets, challenges, also overspending is makin gain about interest around student in university. Previous literature research with topic about mobilere payments is only focusing in some topics, where is the new knowledge is having limitation. Previous research has focused on customer readiness, adoption, diffusion, acceptance of new technology, and crime-related activities like account theft and data breaches.

DANA

DANA is a digital financial service in Jakarta, Indonesia, designed to replace traditional wallets. Established in 2018, it is an e-wallet or digital electronic wallet who is registered under Bank Indonesia and has four licenses, including electronic money, digital wallet, money transfer, and financial liquidity. DANA is developed by a startup company with a 99 percent ownership stake, PT Elang Sejahtera Mandiri, and EMTEK, with technology support from Ant Financial. DANA is designed for storing

limited funds in accordance with Bank Indonesia regulations and security standards. Its open platform allows users to interact with various payment devices and can be used for various needs, including education, social services, public services, and traders.

HYPOTHESIS

Perceived risk and Perceived Trust

According to Peter & Olson (2013), perceived risk is an unexpected consequence that consumers want to avoid when purchasing and using a product or service. Based on McKnight and Chervany (2001), trust is the main key to maintaining a relationship where the relationship is intertwined when the relationship contains stakes. Various indications towards the acceptance of the bet where the trust must be in line (Eid 2011), The result is the perceived risk gets higher, people's trust in vendors getting lower, also the risk will get lower (Chen 2008). From the explanation above, perceived risk is part of trust (Yi 2002).

H1: Perceived risk has a significant negative effect on the Perceived Trust of the people of West Sumatra in using the DANA e-wallet.

Perceived Security and Perceived Trust

According to Mukherjee and Nath (2007) Identifies security features and uses privacy is the value which is the main key a trust, the good thing about influencing consumer behavior. Kumar et al., (2018) in a previous research regarding the use of M-wallet in India it was found that perceived security system has a significant effect on perceived trust.

H2: Perceived Security has a significant positive effect on the Perceived Trust of the people of West Sumatra in using the DANA e-wallet.

Perceived Risk and Intention to Use

According to Amaro and Duarte (2015), online transactions are more likely to cause uncertainty than traditional trade. Various research studies have revealed that perceived risk adversely affects intention to use, Lee and Tan (2003) state that consumers with higher risk perceptions are less likely to buy online products or services. It can be concluded that perceived risk has a negative influence on consumer intention to purchase over the Internet (Liu and Wei, 2003). Based on the above exposure, perceived risk is considered a negative effect on customer intention to use mobile payments (Thakur and Srivastava 2014).

H3: Perceived risk has a significant negative effect on the intention to use the people of West Sumatra in using the DANA e-wallet.

Perceived Trust and Intention to Use

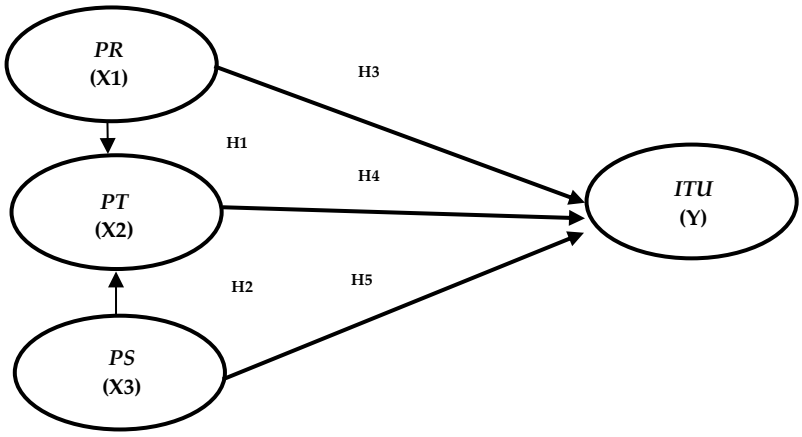
The contribution of trust to technology adoption is enormous and can be observed from the studies of Hanafizadeh et al. (2014) and Luo et al. (2010). Mayer et al., (1995) Consumer trust has become an important component that needs to be considered in mobile commerce. Trust is an important construct for technology adoption (Shin, 2009). Previos studies in the context of e-wallets found a significant effect on trust. Where a straight line can be drawn related to the level of trust, the intention to use also increases.

H4: Perceived Trust has a significant positive effect on the intention to use the people of West Sumatra in using the DANA e-wallet.

Perceived Security and Intention to Use

Perceived Security is defined that users being confident in the use of a channel in certain online payments, Perceived Security positively underlies the intention to use (Flavián and Guinalíu, 2006; Mukherjee and Nat, 2007; Shin, 2009). Security is a determining tool in the intention to use. according to the results of research by Lai and Liew (2021) which states that Perceived Security has a positive and significant effect on Intention to Use.

H5: Perceived Security has a significant positive effect on the intention to use the people of West Sumatra in using the DANA e-wallet.



Picture 1. Conceptual Framework

METHOD

This type of research is quantitative methods. The research data is sourced from primary data which is collected directly by the researcher. This research data were collected through questionnaires that were distributed online with google forms. The sampling method was carried out using purposive sampling technique based on the criteria, namely as a people who use DANA e-wallet in West Sumatera with 210 respondents. Data analysis using PLS and classification on the measurement model and structural model testing. The measurement uses validity testing which in this study uses two ways of measuring validity, namely convergent validity and discriminant validity. After testing the validity, a reliability test will be carried out as seen from Cronbach's alpha and composite reliability values, as well as the structural model by testing r square, and q square to see the influence and direction of the relationship between variables and assess the significance between variables. There are 4 variables in this study, there are 3 exogenous variables (x1 = perceived risk, x2= perceived trust, and x3= perceived security), 1 endogenous variable namely intention to use.

RESULT AND DISCUSSION

The data taken in this study is by using a questionnaire distributed via Google forms with a minimum of 150 respondents, the researchers obtained 230 respondents and those who met the research criteria were 210 respondents. Validity in every relationship between indications and constructs. Convergent validity criteria based on (Chin, 1998) Calculated through rating using average variance extract (AVE) > 0.5 and outer loading > 0.7. Following the results in the process as well as the validity that can be seen of the average variant extract (AVE) and outer loading: Convergent validity is written in Table 1:

Table 1. Outer Loading

	ITU (Y)	PR (X1)	PS(X3)	PT (X2)
ITU1	0.844			
ITU2	0.898			
ITU3	0.871			
PR1		0.864		
PR2		0.953		
PR3		0.947		

PR4	0.955		
PR5	0.892		
PR6	0.926		
PS1		0.891	
PS2		0.913	
PS3		0.892	
PS4		0.891	
PT1			0.866
PT2			0.896
PT3			0.882
PT4			0.876
PT5			0.854

Source: Primary data 2023

Based on Table 1, all the instruments for each variable in this study have outer loadings values greater than 0.7. The first instrument of intention to use has the smallest outer loadings value in this study, namely 0.844. Therefore, it can be concluded the convergent validity of all instruments is valid.

Table 2. Output AVE

	Average variance extracted (AVE)
ITU (Y)	0.759
PR (X1)	0.853
PS(X3)	0.804
PT (X2)	0.766

Source: Primary Data 2023

Based on Table 2, if the AVE value of all variables is greater than 0.5, the convergent validity is said to be valid.

Discrimination in validity corresponds to differences in the structure which must have a degree of conformity. Discriminant validity is written from the cross-loading indicator values for every variable as shown in Table 3.

Table 3. Cross Loading Value

	ITU (Y)	**PR (X1)**	**PS (X3)**	**PT (X2)**
ITU1	**0.844**	-0.059	0.548	0.578
ITU2	**0.898**	0.021	0.617	0.611
ITU3	**0.871**	0.021	0.613	0.655
PR1	0.053	**0.864**	-0.061	-0.028
PR2	0.002	**0.953**	-0.078	-0.082
PR3	-0.01	**0.947**	-0.057	-0.065
PR4	-0.034	**0.955**	-0.061	-0.067
PR5	0.007	**0.892**	0.012	-0.011
PR6	0.026	**0.926**	-0.022	-0.018
PS1	0.662	-0.083	**0.891**	0.783
PS2	0.612	-0.009	**0.913**	0.787
PS3	0.594	-0.084	**0.892**	0.737
PS4	0.575	-0.054	**0.891**	0.79
PT1	0.623	-0.093	0.77	**0.866**
PT2	0.649	-0.099	0.815	**0.896**
PT3	0.593	-0.06	0.736	**0.882**

	ITU (Y)	PR (X1)	PS (X3)	PT (X2)
PT4	0.638	-0.04	0.727	**0.876**
PT5	0.586	0.009	0.728	**0.854**

Source: Primary Data 2023

Based on Table 3, the relationship between values and indications with other variables is greater than the connection between indicator values and other variables. This shows that the instrument has met discriminant validity. In addition, discriminant validity testing was also carried out by taking into account the AVE square root value. In the Fornell-Larcker criterion test, Discriminant validity can be told as AVE which is a high structure with structural correlation through hidden values, where cross loading can be found which produces a high indication of the values of various constructions compared to indications in other constructions (Sekaran & Bougie, 2016). Based on this, it can be found that the square root of AVE using the Fornell Larcker Criterion on SmartPLS:

Table 4. AVE Square Root Test Output

	ITU (Y)	PR (X1)	PS(X3)	PT(X2)
ITU (Y)	**0.871**			
PR (X1)	-0.005	**0.924**		
PS(X3)	0.681	-0.064	**0.897**	
PT (X2)	0.707	-0.066	0.864	**0.875**

Source : Primary Data 2023

Based on table 4 The correlation of a variable is greater for itself than for other variables. Therefore, it can be concluded that the variable can predict itself better than other variables, and the instrument meets discriminant validity.

Tabel 5. Cronbach Alpha

	Cronbach's alpha	Composite realibilty	Meaning
ITU (Y)	0.842	0.904	Reliable
PR (X1)	0.968	0.972	Reliable
PS(X3)	0.919	0.943	Reliable
PT(X2)	0.924	0.942	Reliable

Source: Primary Data 2023

Based on Table 5, the variable has good reability or is capable of measuring its construct. A variable is said to be quite reliable if its Cronbach alpha value is greater than 0.6 and its composite reability is greater than 0.7 (Sofyani& Umy, n.d.).

Table 6. R square dan R square adjusted

	R -Square	R-Square adjusted	Quality Model
ITU (Y)	**0.521**	**0.514**	**Moderat**
PT (X2)	**0.747**	**0.744**	**Strong**

Source: Primary Data 2023

Based on Table 6 shows the intention to use can be explained by the Perceived Risk, Perceived Security, and Perceived Trust variables by 52.1%, while the remaining 47.9% is explained by other variables not included in this study. The R square value of Perceived Trust can be explained by the Perceived Risk and Perceived Security variables by 74.7%, while the remaining 25.3% is explained by other variables not included in this study.

Table 7. Q Square

	Q Square	Quality Model
ITU (Y)	0.451	Strong
PT (X2)	0.745	Strong

Source: Primary Data 2023

Based on Table 7, The q square values for the variables intention to use and perceived trust are greater than zero, namely 0.451 and 0.745. This shows that the model has a good predictive relevance.

Table 8. Path Coefficient

	Original sample (O)	T statistics (|O/STDEV|)	P values
PR (X1) -> PT (X2)	-0.011	0.285	0.775
PS(X3) -> PT (X2)	0.863	34.062	0
PR (X1) -> ITU (Y)	0.045	0.827	0.408
PT (X2) -> ITU (Y)	0.467	4.82	0
PS(X3) -> PT (X2)	0.28	2.755	0.006

Source: Primary Data 2023

Based on Table 8, it shows the results of hypothesis testing based on the path coefficient value, the direction of the relationship and the level of significance.

1. Perceived Risk has a significant negative impact on Perceived Trust (H1).
   According to Table 8, shows the T statics value of 0.285 or < 1.96, the p value of (0.775 > 0.05), and the original sample value of -0.011, indicating that the first hypothesis is **rejected.**
2. Perceived Security has a significant positive effect on Perceived Trust (H2).
   According to Table 8, shows the T statistics value of 34,062 or >1.96, the p value of (0.000 <0.05), and the original sample value is 0.863, indicating that the second hypothesis is **accepted**.
3. Perceived Risk has a significant negative effect on Intention to Use (H3).
   According to Table 8, shows the T statics value of 0.827 or < 1.96, the p value of (0.408 > 0.05), and the original sample value of 0.045, indicating that the third hypothesis is **rejected**.
4. Perceived Trust has a significant positive effect on Intention to Use (H4)
   According to Table 8, shows the T statics value of 4.82, or >1.96, the p value of (0.000 < 0.05), and the original sample value is 0.467, indicating that the fourth hypothesis was **accepted**.
5. Perceived Security has a significant positive effect on Intention to Use (H5)
   Based on Table 8, shows the T statistics value of 2.755 or >1.96, the p value of (0.006 <0.05), and the original sample value is 0.28, indicating that the fifth hypothesis is **accepted.**

DISCUSSION

The Influence of Perceived Risk on Perceived Trust

This result shows that perceived risk has a negative and insignificant effect on perceived trust. This result does not support the research findings put forward by Ali et al., (2021) which show that perceived risk has a negative and significant impact on trust.

Previous research that supports the result of this study conducted by Hu et al., (2023) which states that perceived risk has a negative and insignificant effect on perceived trust. Although high risks in using e-wallets may exist, users' trust in the platform is not always directly affected. Previous research conducted by (Faqih, K. M. 2022) also shows that perceived risk has a negative effect on perceived trust. The results of the study illustrate that although the DANA e-wallet has a high risk, the level of trust in the DANA e-wallet is also high. Users continue to use and trust the DANA e-wallet.

This result is in accordance with the theory of planned behavior which states that perceived trust is carried out through the incorporation of characteristics, qualities, and attributes of certain information.

The Effect of Perceived Security on Perceived Trust

This result shows that Perceived Security has a positive and significant effect on Perceived Trust. the results of this study are in accordance with the facts put forward by Kumar et al., (2018) which show that perceived security has a positive effect on trust m-wallet service providers. The results of this study indicate that good Perceived Security on the DANA e-wallet platform is a key factor that can generate public trust to use it. When people or potential users feel that the DANA e-wallet provides a high and reliable level of security, they will feel more comfortable and confident to adopt and use the service in their financial activities.

Previous research that supports the results of this study conducted by Limbu, Wolf, & Lunsford, 2011) shows that Perceived Security has a positive and significant effect on Perceived Trust, the stronger the security system of the payment system to use, the higher the level of trust of a person in using a service. This finding is also in accordance with research by Kumar et al., (2018) which states that Perceived Security has a positive and significant effect on Perceived Trust. These results are in accordance with the theory of planned behavior which states that individual attitudes towards behavior include beliefs about a behavior, evaluation of behavioral outcomes, subjective norms, normative beliefs and motivation to comply attitudes and subjective norms

The Effect of Perceived Risk on Intention to Use

This result shows that perceived risk has no negative or insignificant effect on the intention to use. These results do not support research conducted by Pavlou (2003; Eid 2011). Based on the results of the study, it was found that consumers realize that even though the DANA e-wallet is risky, it does not change their views on the intention to use the DANA e-wallet as the main reason for using this service, so the risks that may arise are considered manageable.

Previous research that supports the results of this study conducted by (Alrawad et al., 2023) shows that perceived risk has no negative and insignificant effect on intention to use. In this study, it is explained that although e-wallets may have security risks and vulnerabilities, users' intention to continue using the service can still be high if they feel the benefits and convenience of transacting with e-wallets outweigh the risks involved. Research conducted by (Yi 2002) also supports the results of this study where perceived risk has no negative and insignificant effect on intention to use. This is related with the theory of planned behavior where Intention is a decision to behave in a desired way or a stimulus to carry out an action, either consciously or unconsciously.

The Influence of Perceived Trust on Intention to Use

This result shows that perceived trust affects intention to use positively and significantly. It can be seen that high trust in the DANA e-wallet has proven to be a strong factor in generating the intention to use this service. When consumers feel trust and confidence in the DANA e-wallet, which is safe, reliable, and has adequate protection against security and privacy risks, they tend to feel more comfortable and trust this platform as their main payment solution. A high public perception of trust will also make people's intentions to use this service stronger. As consumer confidence increases, the intention to use the DANA e-wallet will increase.

Previous research that supports the results of this study conducted by Bashir and Madhavaiah (2014) that trust significantly affects the intention to use internet banking. It can be concluded that the more users trust that the payment system is good , the higher someone's intention to use it. Although there are many possible risks faced, trust is the most important thing in consumer intention to use the DANA e-wallet. This is related with the theory of planned behavior where trust that is able to influence someone to carry out specific behaviors where if the level of customer trust is high, the greater the intention of someone to use an e-wallet.

The Effect of Perceived Security on Intention to Use

This result shows that perceived Security has a positive and significant effect on intention to use. The higher the level of security perceived by consumers towards the DANA e-wallet, the greater the intention to use this service. When consumers feel that the DANA e-wallet provides a strong and effective security system, they will feel more confident and comfortable in their intention to use the service as their main payment method. High-security perceptions include aspects of personal data protection, transaction security, and a reliable authentication system. The perceived security of the DANA e-wallet forms an important basis for consumers to actively use this service in various daily financial transactions and activities. With a high level of security, consumers will have a high intention to use the DANA e-wallet.

Previous research supports the results of this study conducted by Lai and Liew (2021), which states that Perceived Security has a positive and significant effect on Intention to Use. In addition, previous research that also supports the results of this study was conducted by Selfi et al. (2021). An e-wallet platform that is considered more secure will be the first choice for many consumers, which means that the intention to use the service will increase. This is related with the theory of planned behavior where People will think about the implications of their actions before they decide to use a system, so high security will increase someone's intention to use an e-wallet.

CONCLUSSION

Perceived risk has no effect on Perceived trust and Intention to use. This means that the level of risk is not a determinant of consumers using the DANA e-wallet. Although it is believed to have a high enough risk, it does not prevent users from using the DANA e-wallet because consumers believe that the DANA e-wallet can handle risk well so that it will not harm consumers. Perceived security has a significant effect on Perceived trust and intention to use. This proves that consumers trust the security of the DANA e-wallet so that they do not hesitate to use it as a means of payment. Of the variables studied, perceived trust is the most influential variable, this is evidenced in data processing with the largest mean value of 4.27 conducted by the author with a total of 210 valid respondents. So it can be concluded that a high enough risk does not affect consumer intention in using DANA services because basically every service has its own risks, but consumer considerations can be seen from the level of trust, high security is a factor that can influence a person's intention to use the DANA e-wallet.

REFERENCES

Aji, H. M., Berakon, I., & Md Husin, M. (2020). COVID-19 and e-wallet usage intention: A multigroup analysis between Indonesia and Malaysia. *Cogent Business and Management*, *7*(1). https://doi.org/10.1080/23311975.2020.1804181

Alrawad, M., Lutfi, A., Almaiah, M. A., & Elshaer, I. A. (2023). Examining the influence of trust and perceived risk on customers intention to use NFC mobile payment system. *Journal of Open Innovation: Technology, Market, and Complexity*, *9*(2), 100070. https://doi.org/10.1016/j.joitmc.2023.100070

Asmaasyi, A. (2022). *Apa Itu E-Wallet? Pengertian, Jenis, dan Kelebihan*. Finansial Bisnis. https://finansial.bisnis.com/read/20220302/55/1506199/apa-itu-e-wallet-pengertian-jenis-dan-kelebihan

Bommer, W. H., Milevoj, E., & Rana, S. (2023). The intention to use cryptocurrency: A meta-analysis of what we know. *Emerging Markets Review*, *55*(September 2022), 100962. https://doi.org/10.1016/j.ememar.2022.100962

Chang, H. H., & Chen, S. W. (2008). The impact of online store environment cues on purchase intention: Trust and perceived risk as a mediator. *Online Information Review*, *32*(6), 818–841. https://doi.org/10.1108/14684520810923953

Dayanti, S., Udayana, I. B. N., & Maharani, B. D. (2021). Pengaruh Perceived Security Dan Information

Quality Terhadap Trust Serta Dampaknya Terhadap Online Purchase Intention. *Syntas Admiration*, *2*(11), 1–12.

Eid, M. I. (2011). Determinants of e-commerce customer satisfaction, trust, and loyalty in Saudi Arabia. *Journal of Electronic Commerce Research*, *12*(1), 78–93.

Flavián, C., & Guinalíu, M. (2006). Consumer trust, perceived security and privacy policy: Three basic elements of loyalty to a web site. *Industrial Management & Data Systems*, *106*(5), 601–620. https://doi.org/10.1108/02635570610666403

Forsythe, S. M., & Shi, B. (2003). Consumer patronage and risk perceptions in Internet shopping. *Journal of Business Research*, *56*(11), 867–875. https://doi.org/10.1016/S0148-2963(01)00273-9

Ghozali, I. (2014). *Structural Equation Modeling Metode Alternatif dengan Partial Least Square (PLS) Edisi 4*. Universitas Diponegoro Semarang.

Hair, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European Business Review*, *26*(2), 106–121. https://doi.org/10.1108/EBR-10-2013-0128

Hong, Z., & Yi, L. (2012). Research on the Influence of Perceived Risk in Consumer On-line Purchasing Decision. *International Conference on Applied Physics and Industrial Engineering*, *24*, 1304–1310. https://doi.org/10.1016/j.phpro.2012.02.195

Kassim, N. M., & Abdalla, A. (2006). The influence of attraction on internet banking: An extension to the trust-relationship commitment model. *International Journal of Bank Marketing*, *24*(6), 424–442. https://doi.org/10.1108/02652320610701744

Kim, D. J., Ferrin, D. L., & Rao, H. R. (2008). A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. *Decision Support Systems*, *44*(2), 544–564. https://doi.org/10.1016/j.dss.2007.07.001

Kumar, A., Adlakaha, A., & Mukherjee, K. (2018). The effect of perceived security and grievance redressal on continuance intention to use M-wallets in a developing country. *International Journal of Bank Marketing*, *36*(7), 1170–1189. https://doi.org/10.1108/IJBM-04-2017-0077

Lai, P. C., & Liew, E. J. Y. (2021). Towards a Cashless Society: The Effects of Perceived Convenience and Security on Gamified Mobile Payment Platform Adoption. *Australasian Journal of Information Systems*, *25*, 1–25. https://doi.org/10.3127/AJIS.V25I0.2809

Lisana, & Handarkho, Y. D. (2022). Social aspect versus service quality in trust formation toward mobile payment adoption: a case study of Indonesia. *Asia Pacific Journal of Marketing and Logistics*, *35*(6), 1349–1365. https://doi.org/10.1108/APJML-10-2021-0774

McKnight, D. H., Cummings, L. L., & Chervany, N. L. (1998). Initial trust formation in new organizational relationships. *Academy of Management Review*, *23*(3), 473–490. https://doi.org/10.5465/AMR.1998.926622

Miyazaki, A. D., & Fernandez, A. (2001). Consumer Perceptions of Privacy and Security Risks for Online Shopping. *Journal of Consumer Affairs*, *35*(1), 27–44.

Mukherjee, A., & Nath, P. (2007). Role of electronic trust in online retailing: A re-examination of the commitment-trust theory. *European Journal of Marketing*, *41*(9–10), 1173–1202. https://doi.org/10.1108/03090560710773390

Patel, K. J., & Patel, H. J. (2018). Adoption of internet banking services in Gujarat: an extension of TAM with perceived security and social influence. *International Journal of Bank Marketing*, *36*(1), 147–169. https://doi.org/10.1108/ijbm-08-2016-0104

Peter, J. P., Olson, J. C., & Sihombing, D. (1999). *Consumer behavior : perilaku dan strategi pemasaran*. Erlangga.

Schoorman, F. D., Mayer, R. C., & Davis, J. H. (2007). An Integrative Model Of Organizational Trust: Past, Present, And Future. *Academy Of Management Review*, *32*(2), 344–354.

Sekaran, U., & Bougie, R. (2016). *Research Methods For Business: A Skill Building Approach* (7th ed.). Wiley & Sons, West Sussex.

Selnes, F. (1998). Antecedents and Consequences of Trust and Relationships. *European Journal of Marketing*, *32*(3/4), 305–322.

Shin, D. H. (2009). Towards an understanding of the consumer acceptance of mobile wallet. *Computers in Human Behavior*, *25*(6), 1343–1354. https://doi.org/10.1016/j.chb.2009.06.001

Thakur, R., & Srivastava, M. (2014). Adoption readiness, personal innovativeness, perceived risk and usage intention across customer groups for mobile payment services in India. *Internet Research*, *24*(3), 369–392. https://doi.org/10.1108/IntR-12-2012-0244

Wu, J., Liu, L., & Huang, L. (2017). Consumer acceptance of mobile payment across time Antecedents and moderating role of diffusion stages. *Industrial Management and Data Systems*, *117*(8), 1761–1776. https://doi.org/10.1108/IMDS-08-2016-0312

Zhou, T. (2014). An empirical examination of initial trust in mobile payment. *Wireless Personal Communications*, *77*(2), 1519–1531. https://doi.org/10.1007/s11277-013-1596-8

Zielke, S., & Dobbelstein, T. (2007). Customers' willingness to purchase new store brands. *Journal of Product and Brand Management*, *16*(2), 112–121. https://doi.org/10.1108/10610420710739982