Analysis of Factors Affecting Behavioral Intention in Using Mobile Wallets in Batam City

Edy Yulianto Putra[1]
Feby Fitria Salim[2]

[1,2]Management, Universitas Internasional Batam, Indonesia
[2]Author's correspondence: yulianto@uib.ac.id

Abstract. This study aims to determine the effect between perceived risk, self-efficacy, enjoyment, trust, perceived usefulness, and perceived ease of use on behavioral intention to use mobile wallets in Batam City. Therefore, the researcher use judgemental sampling in order to give the questionnaire to users who have made transactions using Go-Pay, OVO, Dana, Shopee, and Link Aja in Batam City, by using a google form that was distributed to 375 respondents. The results of these respondents will be processed using smartPLS version 3.0 software. The results of this study indicate trust and self-efficacy, do not at all affect behavioral intention to use mobile wallets in Batam City. In addition, trust is also unable to mediate the effect between enjoyment and behavioral intention to use mobile wallets in Batam City.

Keywords: Behavioral intention; Mobile wallets; Perceived ease of use; Perceived usefulness; Trust.

Abstrak. Penelitian ini bertujuan untuk mengetahui pengaruh perceived risk, self-efficacy, enjoyment, trust, perceived usefulness, dan perceived ease of use terhadap behavioral intention pada penggunaan mobile wallets di Kota Batam, Kepulauan Riau. Oleh karena itu, peneliti menggunakan judgemental sampling dengan memberikan kuesioner kepada pengguna yang pernah melakukan transaksi menggunakan Go-Pay, OVO, Dana, Shopee Pay, dan Link Aja di Kota Batam. Pengumpulan data dilakukan dengan memanfaatkan Google form yang disebarkan kepada 375 responden. Hasil dari jawaban responden tersebut diolah dengan menggunakan software SmartPLS versi 3.0. Hasil penelitian ini menunjukkan bahwa trust dan self-efficacy sama sekali tidak mempengaruhi behavioral intention pada penggunaan mobile wallets di Kota Batam. Selain itu, trust juga tidak mampu memediasi pengaruh enjoyment terhadap behavioral intention pada penggunaan mobile wallets di Kota Batam.

Kata kunci: Behavioral intention; Mobile wallets; Perceived ease of use; Perceived usefulness; Trust.

BACKGROUND

There is a technological innovation, so that payment methods are also experiencing development. In the past, transactions only used barter, but along with the times, legitimate transactions were transactions using only cash. After the presence of payment instrument technology, it began to adapt to digital payments or called mobile wallets (Bank Indonesia, 2020b). According to Katadata (2022), the value of transactions using mobile wallets has increased by 58.60% or IDR 35.10 trillion in 2021, when viewed in 2020, transactions using mobile wallets only reached IDR 22.13 trillion. In addition, the volume of transactions using mobile wallets in 2021 reached 602.29 million times compared to 2020, the volume of transactions using mobile wallets only reached 438.04 million times. Therefore, it can be seen that there is an increase in the use of mobile wallets from 2020 to 2021. This increase can occur due to people's preference for online using digital payment methods or mobile wallets (Kontan, 2022). Based on data from the Media Center Batam (2020) which states that in April 2020 the use of digital payments was recorded at IDR 128.3 billion with a total transaction of 1.34 million transactions.

During the COVID-19 pandemic, users of mobile wallets increased 10 times from 2019, this was due to reducing the number of virus spreads and government policies related to health protocols so that people were advised to use digital transactions or non-cash transactions (Media Indonesia, 2021), (Merdeka, 2021). The Indonesian government has also implemented policies related to digital payments as regulated in PBI (Peraturan Bank Indonesia/*Bank Indonesia Regulation*) No. 2016/2018 regarding electronic money (Bank Indonesia, 2018). According to Bank Indonesia, (2020a) mobile wallet is a digital form of payment where the money can be stored in electronic media. Before using it, users are expected to top up their balance or top up before making a transaction.

According to Good News From Indonesia (2022) which we can look at Figure 1, the mobile wallet applications *that* are most in demand by the Indonesian people are OVO, Go-Pay, Shopeepay, Dana, and Link Aja. The five applications took the first, second, third, fourth, and fifth positions respectively. OVO can occupy the first position with a percentage gain of 31%. This is because OVO has the largest number of new active users among mobile wallets . On the other hand, OVO was able to increase online merchant in the first half of 2021. Go-Pay can occupy the second position with a percentage of 25%, because Go-Pay offers security in transactions so that users are interested in using it. Shopeepay is one of the mobile wallets applications, so this application can occupy the third position with a percentage of 20%. Shopeepay offers many promotions to users so that they are interested in using the application. Shopeepay actively used since the Covid-19 pandemic. Dana can occupy the fourth position with a percentage of 19%, because the majority of Dana users believe in the application, In addition, the majority of users of Dana are Generation Z and Millennials. The Link Aja application managed to occupy the fifth position with a percentage of 4%, because Link Aja is a mobile wallet produced by government.

Perceived risk is the risk that will arise when making transactions or using a mobile wallet. This risk arises because of a person's perception of personal data or risks that come from the technology, such as unsuccessful transactions but the balance is reduced (Al-Saedi et al., 2020). This dimension will determine whether consumers have

behavioral intentions in using a mobile wallet or not. Self-efficacy is measuring the extent to which the technology is able to take advantage of its innovations in achieving its goals. For this reason, the company will take advantage of the manual provided on the platform and video tutorials that can be accessed via YouTube, so that consumers can learn how to use mobile wallets (Al-Saedi et al., 2020). In this dimension, self-efficacy will make consumers have behavioral intentions in using a mobile wallet because they have guidelines or procedures for using the application.
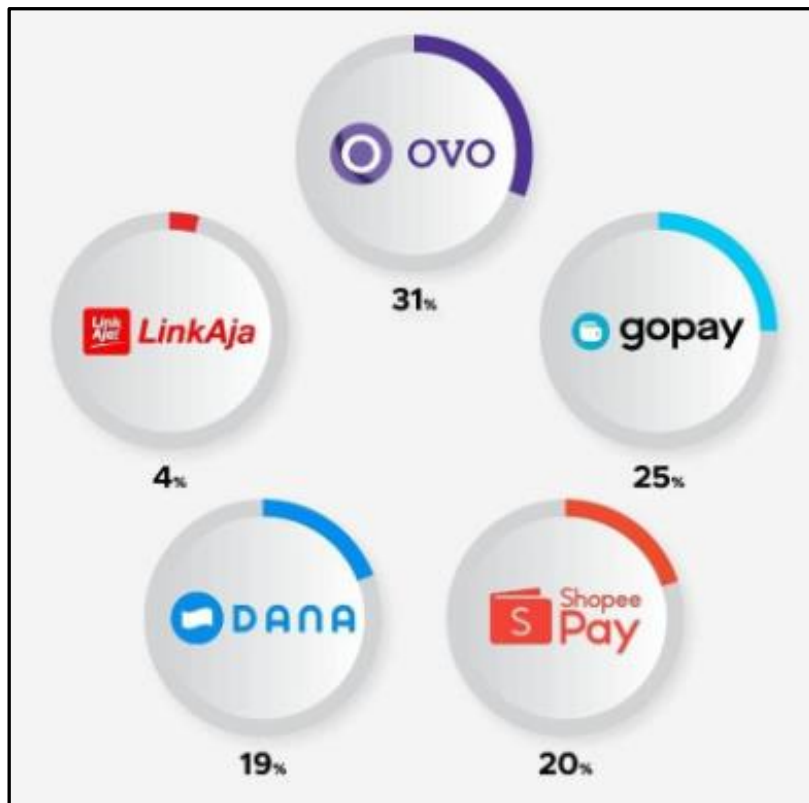
Source: Good News From Indonesia (2022).

Figure 1. Mobile Wallets that Dominate in Indonesia (2021)

Enjoyment is a taste that will be enjoyed by consumers in the form of pleasure or displeasure in using technology. In this study, the perceived enjoyment is the extent to which a person feels happy when using mobile wallets. The higher consumers enjoy using it, the less anxiety they feel (To & Trinh, 2021). Trust is a consumer trust about the technology used, when using mobile wallets consumers will usually be asked to fill in personal data and top up from a personal account, for that consumers will be very concerned about their security and privacy. Consumers who have confidence in the application will make them feel safe in using it (To & Trinh, 2021), in this dimension consumers will believe that the application they use is an application that can be trusted and relied on.

Perceived usefulness is an individual who uses the technology to increase its effectiveness and performance. In this dimension, consumers will prefer to use a mobile wallet if its use can be useful for them. Percaived usefulness will make consumers to

return to using mobile wallets because it has benefits for them (To & Trinh, 2021). Perceived ease of use is a person's perception of the ease of transactions using a mobile wallet. The ease that is felt by individuals is easy to use, can save time and its use is clear and easy to understand. In this dimension, consumers will feel that using a mobile wallet is not difficult and easy to use, so that consumers have behavioral intentions in using a mobile wallet (To & Trinh, 2021).

In making users more interested in using mobile wallets, and also to prove directly which of course the results of this study are very useful in researching consumer behavior. Whether users must have show behaviors that can make them have the intention to use them more often. Therefore, research from Al-Saedi et al. (2020), which states that the role of perceived risk and self-efficacy (hint) will influence users to use mobile wallets. In addition, research from To and Trinh (2021), also states that enjoyment, trust, perceived usefulness, and ease of use play a very important role in growing user behavioral intention.

THEORETICAL REVIEW

Behavioral Intention

According to Al-Emran et al. (2020) interpreting behavioral intention as the ease of using a technology so that users have the intention to reuse it in the future. According to Wu et al. (2021) explain that behavioral intention is a risk experienced by consumers when using the technology which will be a determinant for consumers to reuse the technology or not. Behavioral intention is an attitude of consumer loyalty to the product/ service used, behavioral intention is not only used to measure current consumer behavior but also potential consumers (Suhartanto, 2019).

The Effect of Perceived Risk on Behavioral Intention

Wu et al. (2021) perceived risk or the risk perceived by consumers will greatly affect their behavior to use a technology. Perceived risk in the study of Wu et al. (2021) said that the risk of personal data leakage would prevent consumers from using technology. Based on research in the context of mobile wallets, perceived risk is an important factor influencing consumer behavioral intentions (Al-Saedi et al., 2020). Fear and hacking among users can trigger negative risk perceptions that will lead to blocking of personal information (Bashir & Madhavaiah, 2015). So it can be concluded the following hypothesis:

H1: Perceived risk has an effect on behavioral intention to use mobile wallets in Batam City.

The Effect of Self-Efficacy on Behavioral Intention

Kumar et al. (2020)**,** Al-Saedi et al. (2020), and Zhang et al. (2020) states self-efficacy has an effect on behavioral intention, this is because The existence of innovation from technology on how to use a service will make consumers have the behavior to use the service (Al-Saedi et al., 2020). Consumers who have a high ability to use digital payments will substantially return to using these services (Zhang et al., 2020). Therefore, it can be concluded that the relationship between variables is as follows:

H2: Self-efficacy has an effect on behavioral intention to use mobile wallets in Batam City.

The Effect of Perceived Usefulness on Behavioral Intention

According to To & Trinh (2021), Al-Emran et al. (2020), and Zhai & Ma (2021) perceived usefulness has an effect on behavioral intention because consumers get the positive side of using it such as increasing its performance and effectiveness (Al-Emran et al., 2020). Usually users will use mobile wallets, if the services provided generate benefits (To & Trinh, 2021). Thus, consumers who assume that the use of mobile wallets are useful for them can make consumers return to use the service. So there is a hypothetical relationship as follows:

H3: Perceived usefulness has an effect on behavioral intention to use mobile wallets in Batam City.

The Effect of Perceived Ease of Use on Behavioral Intention

According to To & Trinh (2021), Chen & Aklikokou (2020), and Zhai & Ma (2021) ease of use has a positive relationship with behavioral intention. Because In using the system if the user feels that it is easy to use it will attract the user's attention to return to using the system (Chen & Aklikokou, 2020). Users of mobile wallets consist of young people and the oldster, so the use of the application must be easy to use (To & Trinh, 2021). Therefore, the following hypothesis can be formulated:

H4: Perceived ease of use has an effect on behavioral intention to use mobile wallets in Batam City.

The Effect of Trust on Behavioral Intention

Saprikis & Markos (2018), Hallem et al. (2021), Bashir and Madhavaiah (2015) explains the positive influence on trust with behavioral intention. Because consumers trust their personal data to be given to responsible parties such as banks (Bashir & Madhavaiah, 2015). Hallem et al. (2021) states that trust in the platform will make users have a loyal attitude towards the platform. According to Purwianti (2022) and Saprikis & Markos (2018) user trust will make consumers have a behavioral intention in reusing the application. This is because users believe that the application will not harm them so that they will use it again. So it can be concluded the following hypothesis:

H5: Trust affects behavioral intention in using mobile wallets in Batam City.

The Effect of Trust on Perceived Usefulness

To & Trinh (2021), Zhai & Ma (2021), and Saprikis et al. (2018), states that trust with perceived usefulness has a positive effect because trust in a service can increase the benefits used (Saprikis et al., 2018). According to To & Trinh (2021) that trust in mobile wallets is able to increase consumer effectiveness. Based on research from Seo & Lee (2021) also proves the same thing. In the study of Seo & Lee (2021) explained that the adoption of service robots can be successful because of the user's trust in the

benefits that will be obtained such as being able to use social media as a marketing strategy for their business.following hypotheses can be concluded:

H6: Trust has an effect on perceived usefulness in the use of mobile wallets in Batam City.

The Effect of Enjoyment on Behavioral Intention

Research conducted by To and Trinh (2021), Saprikis (2018), and Saprikis et al. (2018) explain that enjoyment has a positive relationship on behavioral intention. Consumers who feel happy in using a technology, the consumers will return to use it (To & Trinh, 2021). Consumers can return to using online transactions because these consumers feel good about using them (Saprikis, 2018). According to Christiarini & Rahmadilla (2021) and Saprikis et al. (2018) the enjoyment felt by consumers can increase the loyalty of a product/service that makes consumers return to use it. Therefore, there is a hypothetical relationship as follows:

H7: Enjoyment affects behavioral intention in using mobile wallets in Batam City.

The Effect of Enjoyment on Perceived Usefulness

According to To and Trinh (2021), Saprikis (2018), Putra (2021), and Saprikis & Markos (2018) state that there is a positive relationship between enjoyment and perceived usefulness. The enjoyment felt by consumers will make consumers feel that the use of *mobile wallets* is very beneficial for them (To & Trinh, 2021). Pleasure is an emotional trait which is an extrinsic value of perceived usefulness (Saprikis, 2018). In the use of technology by consumers, if they feel happy or enjoyable, the user will assume that the use of this technology is very useful because it can improve performance and effectiveness (Saprikis & Markos, 2018). So it can be concluded that there is a relationship between variables as follows:

H8: Enjoyment affects perceived usefulness in the use of mobile wallets in Batam City.

The Effect of Enjoyment on Perceived Ease of Use

According to To and Trinh (2021), Putra (2021), Bashir and Madhavaiah (2015), Saprikis et al. (2018) enjoyment has a positive influence with ease of use. Enjoyment of using mobile wallets makes it easier to use the service (To & Trinh, 2021). Enjoyment represents an intrinsic motivation value because perceived ease of use is an intrinsic motivator that can increase enjoyment in using a system so as to increase acceptability (Bashir & Madhavaiah, 2015). So it can be concluded the following hypothesis:

H9: Enjoyment affects the perceived ease of use in the use mobile wallets in Batam City.

The Effect of Enjoyment on Trust

According to To and Trinh (2021), Chunxiang (2014), and Liu et al. (2021) enjoyment has a positive relationship with trust. Because the higher the sense of pleasure from consumers, the greater the consumer's confidence in the technology used (Liu et al., 2021). The perceived level of enjoyment can make consumers reduce their fear/anxiety about mobile wallets (To & Trinh, 2021). S. H. Kim et al. (2020) prove that there is a significant effect on the hypothesis. When the individual is interested in the story being told so that the individual believes in the story (S. H. Kim et al., 2020). Therefore, these variables can be concluded as follows:

H10: Enjoyment affects trust in the use of mobile wallets in Batam City.

The Effect of Enjoyment on Behavioral Intention with Perceived Ease of Use as a Mediator

According to Bashir and Madhavaiah (2015) and Saprikis and Markos (2018) which states that there is a significant positive effect enjoyment on behavioral intention mediated by perceived ease of use. The existence of a higher level of enjoyment intensifies the intrinsic motivation of consumers, thus making consumers perceive using the system as an easy thing which results in users having the intention to use it again (Bashir & Madhavaiah, 2015). Research from Tao et al. (2019) also explain the relationship significant positive effect. This is because users feel they are quite skilled in using the technology so they often use it because of the ease of use that makes them master quickly and makes them happy to use it (Tao et al., 2019). Therefore, it can be concluded as follows:

H11: Enjoyment afefcts behavioral intention with perceived ease of use as a mediation in the use of mobile wallets in Batam City.

The Effect of Enjoyment on Behavioral Intention with Perceived Usefulness as a Mediator

Based on research from Tao et al. (2019) and Saprikis and Markos (2018) which states that there is a significant positive relationship on the hypothesis. When users feel the technology used is useful for their lives, then the user has a greater tendency to use it (Tao et al., 2019). When users feel the benefits indirectly, it also makes users feel happy for the benefits they get (Saprikis & Markos, 2018). According to Bashir and Madhavaiah (2015), there is also a significant positive relationship. This is because a higher level of enjoyment increases the perceived efficiency of the system and increases the perceived value of a system or technology (Bashir & Madhavaiah, 2015). Therefore, there is a hypothetical relationship as follows:

H12: Enjoyment affects behavioral intention with perceived usefulness as a mediation in the use of mobile wallets in Batam City.

The Effect of Trust on Behavioral Intention and Perceived Usefulness as a Mediator

According to To & Trinh (2021) and Chen and Aklikokou, (2020), there is a significant effect on the hypothesis relationship. If mobile wallets do not have proper security, users will feel that the wallet is less useful so that it can reduce the intention to use it (To & Trinh, 2021). Trust can influence a person's interest in adopting a service (Chen & Aklikokou, 2020). Research from Schlaegel (2015) also stated that there was a significant positive relationship on the hypothesis. Trust can increase the expected benefits in market conditions, causing some behavior in its use (Schlaegel, 2015). So that the hypothesis can be concluded as follows:

H13: Trust affects behavioral intention with perceived usefulness as a mediation in the use of mobile wallets in Batam City.

The Effect Enjoyment on Behavioral Intention with Trust and Perceived Usefulness as a Mediator

According to Koenig-Lewis et al. (2015), Saprikis et al. (2018), and Kim & Kim (2020) explain the existence of a significant relationship. An individual who feels happiness is indirectly able to feel the benefits obtained so that he has the intention to use it (Kim & Kim, 2020). In using an application, if the user has trust and feels the benefits, it will indirectly affect their enjoyment of behaving to use it (Koenig-Lewis et al., 2015). When users believe that the application can be trusted so that they enjoy its use, then the user feels the benefits derived from the application which makes the user have the intention to reuse the application (Saprikis et al., 2018). Therefore, the hypothesis can be formulated as follows:

H14: Enjoyment affects behavioral intention with trust and perceived usefulness as a mediation in the use of mobile wallets in Batam City.

The Effect Enjoyment on Behavioral Intention with Trust as a Mediator

Hallem et al. (2021) and Ye et al. (2019) stated that the positive effect was not significant. This is because users will not have the intention to use it if they only feel pleasure (Hallem et al., 2021). Trust is not able to change an individual's perception of the happiness obtained in using something. Lack of user trust will reduce the intention to use it (Ye et al., 2019).

Based on research from S. H. Kim et al. (2020), entitled "story telling by medical tourism agents and its effect on trust and behavioral intention". His research has proven a significant positive relationship. This is because the enjoyment obtained from the story makes the listener believe so that the listener has some behavior towards the story (S. H. Kim et al., 2020). So that these variables can be formulated as follows:

H15: Enjoyment affects behavioral intention with *trust* as the mediation in the use of mobile wallets in Batam City.

The Effect Enjoyment on Perceived Usefulness with Trust as a Mediator

Based on Koenig-Lewis et al. (2015) and Chunxiang (2014) there is a significant positive relationship. The individual feels pleasure when using the application so that it can increase its benefits (Chunxiang, 2014). According to Seo & Lee (2021) also stated that there was a significant positive relationship. When individuals believe that the technology is able to entertain users, the user will indirectly feel the benefits (Seo & Lee, 2021). So there is the following statement:

H16: Enjoyment affects perceived usefulness with trust as the mediation in the use of mobile wallets in Batam City.

From the formulation of the hypothesis above, it can be seen the relationship between the variables in the diagram below.
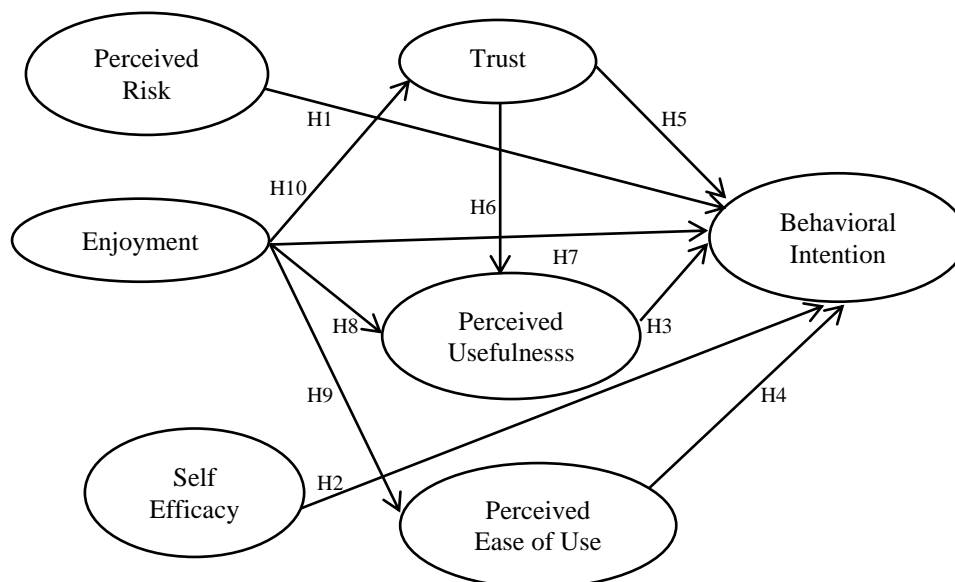
Figure 2. Framework of the Research Model

RESEARCH METHODS

This research uses a comparative causal type of research. The object of this research is to find out what causes can make users have behavioral intentions in using *mobile wallets* in Batam. For this reason, the researcher decided that the population of this study were users who had used mobile wallets in conducting transactions in Batam City. So that the sample used in this study is only a mobile wallets often used. Based on data obtained from Good News From Indonesia (2022), the most frequently used mobile wallets are Go-Pay, OVO, Dana, Shopee Pay, and LinkAja. Therefore, the sample of this research is users who have made transactions using Go-Pay, OVO, Dana, Shopee Pay, and LinkAja in Batam City. The sample needed in this study was 375 respondents with a sampling technique in the form of purposive sampling, where the sample needed in the study was adjusted to the research criteria (Patten & Newhart, 2018). To deter-

mine the number of samples, the researcher used the formula of Hair et al. (2019) with a scale of 1:15. This study used 23 questions. So it required 345 respondents with a calculation of 23*15=345. However, to avoid the risk of respondents who did not meet the criteria, the researchers collected 375 respondents. The data collected will be processed using SmartPLS software related to validity, reliability, and hypotheses test.

Validity and Reliability

Test Validity is a test carried out to prove that the instrument, technique or process used in measuring the concept is in accordance with the objectives (Sekaran & Bougie, 2016). In this study, the validity of the AVE (Average Variance Extracted) test was used. The AVE validity test was carried out to see whether the variable was valid or not, provided that the AVE value was not less than 0.5 (Hair et al., 2019). The reliability test is a test carried out to prove the consistency of the respondents' answers and the stability of the measuring instrument (Sekaran & Bougie, 2016). In this study using a composite reliability approach. The data can be declared reliable if it has a composite of 0.7 (Hair et al., 2019).

Variable Operation

Table 1. Research Instruments

Variables	Operational Definition	Indicators	Source
Behavioral Intention	Person's intention to reuse the application in the long or short term.	1. Using mobile wallets in the future. 2. Using a mobile wallet in everyday life. 3. Use it more often. 4. Recommend to others	To & Trinh (2021)
Perceived Risk	The perceived risk in using and transacting using the application.	1. Feeling unprotected when providing personal information. 2. It is inconvenient to use the service, because other people may be able to access my data. 3. Most likely an error occurred while using it.	Al-Saedi et al. (2020)
Enjoyment	The pleasure that someone feels in the form of being happy, and excited, about using technology can make them have the intention to use it again.	1. Using a mobile wallet is fun. 2. Feel happy when transacting using a mobile wallet. 3. Overall using a mobile wallet is fun.	To & Trinh (2021)
Self-efficacy	Person's belief in doing the recommended activities.	1. If there is a guide to help then I will use it. 2. If someone teaches me how to use a mobile wallet, I will use it. 3. If someone uses a mobile wallet then I use it too.	Al-Saedi et al. (2020)
Trust	A sense of confidence from consumers about the technology that will be used.	1. Feel safe providing financial information in a mobile wallet. 2. Feel safe in the transaction. 3. Feel safe providing personal information.	To & Trinh (2021)
Perceived Usefulness	The user's perception of the application can be useful for him.	1. Can complete tasks more efficiently. 2. The existence of a mobile wallet can facilitate work. 3. Can improve the quality of life. 4. Overall, a mobile wallet is useful.	To & Trinh (2021)
Perceived Ease of Use	Perception of the ease of using the application that makes users use it often.	1. Save time and energy. 2. The usage is clear and easy to understand. 3. Easy to use.	To & Trinh (2021)

Hypotheses Testing (Direct and Indirect Effect)

In the PLS system there are two types of hypothesis analysis. They are direct effect and indirect effect (indirect relationship). The relationship that connects two constructs with one arrow between them is called the direct effect, while the representative relationship between two latent variables through a third construct (for example, mediation) in the PLS pathway model is an indirect effect (Hair et al., 2017). Direct effects and indirect effects can be declared positive if the number in the sample mean shows a positive number and vice versa if it shows a negative number then the relationship is declared negative, besides that the hypothesis can be stated as significant seen in the t-statistic which has a value > 1.96 and a P-$value$ < 0.05 (Hair et al., 2019).

RESULTS AND DISCUSSION

Respondent Demographics

The results of the demographics show that the majority of mobile wallets in Batam City are domiciled by women by 72.4%, the rest are men. For the age range of mobile wallets in Batam City, they are in the range of 17–24 years or 85.3% of mobile wallets in Batam City. Then on the type of work, the average respondent is a student or students of 44.5%. Then users from mobile wallets in Batam City tend to use Go-Pay by 28%, followed by Shopee pay, OVO, Dana, and LinkAja.

Validity and Reliability

Table 2. Validity and Reliability Test Results

Variable	AVE	Composite Reliability
Behavioral Intention (BI)	0.601	0.857
Enjoyment	0.661	0.854
Perceived Ease Of Use (PEOU)	0.592	0.813
Perceived Risk (PR)	0.778	0.913
Perceived Usefulness (PU)	0.582	0.848
Self Efficacy (SE)	0.759	0.863
Trust	0.719	0.885

Source: Researchers (2022).

Based on Table 2, the validity test on the AVE value is not less than 0.5 (Hair et al., 2019). Therefore, all variables can be declared valid and perform a reliability test. The reliability test informs that the composite value is above 0.7 (Hair et al., 2019). So it can be declared reliable. Therefore, both tests have met the criteria.

Hypotheses Test (Direct and Indirect Effect)

Discussion

Through the results of this study (Table 3), it was found that perceived risk was found to influence behavioral intentions (accepted H1). This is because the mobile wallet itself keeps updating their level of security. According to users, the mobile wallet used comes from a clear and well-known company that is even authorized by the OJK itself and the role of the personal data protection law which has 16 chapters and 76 articles that regulate basic things to protect individual personal data from hackers

(Tempo, 2022). Therefore, users do not agree that such risks can reduce their interaction with the mobile wallet. Even researchers from Al-Saedi et al. (2020), Wu et al. (2021), and Bashir & Madhavaiah (2015) discuss that each platform finance is very concerned with security so that data hacking does not occur which makes users afraid, panicked and angry so they are no longer interested in using it. Self efficacy is not a factor that makes users to use a mobile wallet (reject H2). This is because users apply the theory of try and error more and are self-taught because the majority of mobile wallet users in Batam City have a background of high school/vocational high school graduates and are still young. Therefore, users only see the menu listed and make transactions without first reading the user manual or tutorial. However, in contrast to Kumar et al. (2020), Al-Saedi et al. (2020), and Zhang et al. (2020), where every individual really needs a guidebook or tutorial in using an application and technology. Without the manual, they will not use it because they do not understand the application and the technology used and even the potential for errors to occur if it is not equipped with instructions for use.

Table 3. Direct and Indirect Effect

Hypotheses	Sample Mean	t-Statistics	P Values	Result	Conclusion
PR → BI	-0.105	2.735	0.006	Significant	H1: Supported
SE → BI	0.061	1.525	0.127	Insignificant	H2: Not supported
PU → BI	0.196	2.553	0.011	Significant	H3: Supported
PEOU → BI	0.283	4.316	0.000	Significant	H4: Supported
Trust → BI	0.088	1.676	0.094	Insignificant	H5: Not supported
Trust → PU	0.190	3.528	0.000	Significant	H6: Supported
Enjoyment → BI	0.250	3.585	0.000	Significant	H7: Supported
Enjoyment → PU	0.392	5.489	0.000	Significant	H8: Supported
Enjoyment → PEOU	0.556	9.070	0.000	Significant	H9: Supported
Enjoyment → Trust	0.400	7.330	0.000	Significant	H10: Supported
Enjoyment→PEOU →BI	0.157	3.820	0.000	Significant	H11: Supported
Enjoyment→PU→BI	0.075	2.588	0.010	Significant	H12: Supported
Trust→PU→BI	0.036	2.489	0.013	Significant	H13: Supported
Enjoyment→Trust→PU→BI	0.014	2.349	0.019	Significant	H14: Supported
Enjoyment→Trust→BI	0.035	1.613	0.107	Insignificant	H15: Not supported
Enjoyment→Trust→PU	0.076	3.133	0.002	Significant	H16: Supported

Source: Researchers (2022).

Perceived usefulness and ease of use obtained in using a mobile wallet greatly affect the behavioral intention (accepted H3 and H4). These results are the same as those of previous researchers, namely To & Trinh (2021), Al-Emran et al. (2020), Chen & Aklikokou (2020), and Zhai & Ma (2021) who have explored related to the adoption of e-wallet and internet banking. In their research, it was found that the greater the benefits and ease of use, the greater their intention to reuse. This study also shows the same thing, where Batam City mobile wallet users will be more interested in using it because users feel the benefits obtained when using a mobile wallet and in using it is also not complicated which makes Batam City mobile wallet users assume that using a mobile wallet in transactions are more flexible and able to make users feel more efficient because of discounts and cashback in transactions. However, this cannot guarantee their level of trust to behavioral intention (reject h5), which is contrary to Saprikis & Markos (2018), Hallem et al. (2021), Purwianti (2022), and Bashir and Madhavaiah (2015). Nevertheless, trust still affects the perceived usefulness obtained in using a mobile wallet (accepted H6). Because mobile wallet users in Batam City believe

that when they use a mobile wallet, they can shorten the time in making transactions such as not having to queue at the bank in addition to using a mobile wallet they believe it can also reduce spending due to discounts and cashback. Research conducted by To & Trinh (2021), Zhai & Ma (2021), Saprikis et al. (2018), and Seo & Lee (2021), describe that users trust the applications they use. Because after making a transaction they believe that the application used provides benefits to them, where before the application the users had to come directly to the bank to complete the transaction, but the existence of e-wallet and internet banking makes users feel the benefits obtained.

Enjoyment was found to affect the behavioral intention, usefulness, and easy of use on the mobile wallet application (accepted H7, H8, and H9). This is because these users really enjoy transactions using a mobile wallet. Of course, users will prefer to use it if the application can make them feel happy so that it increases users' intention to use mobile wallets more often. In addition, users also feel happy when transacting using a mobile wallet, making them assume that using a mobile wallet is not complicated and very easy. Because they enjoy using it so that the user also gets the benefits obtained through transactions that can be done anytime and anywhere, it makes the user not feel stress due to payment due dates on weekends and the presence of a mobile wallet does not require users to carry a lot of money considering payment transactions, transfers, purchases can be made in the mobile wallet. Research conducted by To and Trinh (2021), Saprikis (2018), Saprikis et al. (2018), Putra (2021), Bashir and Madhavaiah (2015), Christiarini and Rahmadilla (2021), and Saprikis and Markos (2018) also prove that enjoyment does make users reuse, usefulness, and easy of use. Because enjoyment is part of the hedonic motivation, the technology must be created as pleasant as possible so that users intend to use it. In addition, it was found that enjoyment also affects user trust (accepted H10). The pleasure of using a mobile wallet can create trust for its users, because with transactions using a mobile wallet, they can enjoy discounts and cash back, making users believe that their financial information is safe and cannot be seen by any party. This research exploration is also proven by To and Trinh (2021), Chunxiang (2014), Liu et al. (2021), dan S. H. Kim et al. (2020) regarding the adoption of internet banking, that enjoyment is able to provide a sense of comfort in transactions so that users also believe in the application.

Through the direct influence relationship, it is proven that enjoyment affects the perceived usefulness, ease of use, and behavioral intentions. It turns out that this also affects the relationship indirectly, where perceived usefulness and perceived ease of use mediate between enjoyment and behavioral intention (accepted H11 and H12). Even this exploration was also discovered by Bashir and Madhavaiah (2015), Saprikis & Markos (2018), and Tao et al. (2019). When users already feel the pleasure and get the benefits, they will indirectly come back again to use it. Likewise with the ease of use, where consumers feel happy in using it indirectly they will come back again to use it. In this study, it was found that the presence of a mobile wallet changed their habits in transacting using cash which has now switched to digital transactions. With digital transactions, users get discounts and cash back so that they are interested in using them again and these transactions are only carried out in a short and fast time without being complicated so that users have the intention to use them more often.

Directly trust affects the perceived usefulness, so that in the indirect relationship it was also found that the perceived usefulness mediate trust with behavioral intention (accepted H13). In this finding, it is proven that users who believe in the benefits they

get have the intention to use it. Instead of using cash transactions without getting any benefits, users prefer to use mobile wallets which get several benefits in transacting. This proof was also carried out by To and Trinh (2021), Chen and Aklikokou (2020), and Schlaegel (2015) where the researchers proved that users who transacted more frequently on internet banking benefited from transactions without queuing so that customers returned to transacting on the internet banking. Trust and perceived usefulness are proven to be able to mediate between enjoyment and behavioral intentions (accepted H14). Because users who enjoy using it they believe that the use of a mobile wallet can provide benefits for them which makes users indirectly return to use it again. Such a fast and accurate transaction process makes users trust and can save time. This finding was also made by Koenig-Lewis et al. (2015), and Kim and Kim (2020) that there is an influence of trust and perceived usefulness on enjoyment to behavioral intention. It found that enjoyment in using an application does not only depends on the benefits obtained but also depends on trust. In this discovery, it explained that by verifying personal data, get the bank transfer feature without admin fees which makes users intend to use it.

Trust was found to be unable to mediate enjoyment with behavioral intention (rejected H15). This is because trust itself does not have an influence on behavioral intentions, which has an impact on indirect relationships. Trust itself is not able to get users to use it again, but there must be a useful role or easy of use so that users will return to use it. Therefore, contrary to S. H. Kim et al. (2020). But in Hallem et al. (2021) and Ye et al. (2019) was found to have an influence. Because internet banking users believe that their data will not be tracked by irresponsible parties so that their customers also trust and enjoy their transactions. On the other hand, trust can mediate the relationship between enjoyment and perceived usefulness (accepted H16). Users who enjoy mobile wallets will believe that there are benefits to be gained such as enjoying discounts and cash back so that they can reduce expenses. Even this relationship has been proven by Koenig-Lewis et al. (2015), Chunxiang (2014), and Seo and Lee (2021), that their respondents assume that digital transactions are believed to be more efficient than cash transactions.

CONCLUSIONS AND RECOMMENDATIONS

In the explanation above, it can be concluded that the factors that can make users use mobile wallets are the perceived risk that must be low, such as data privacy is safe and not misused, having a sense of pleasure when using or transacting using mobile wallets, then mobile wallets must easy to use and has benefits such as transaction processing can be done anytime and anywhere. Therefore, mobile wallet providers must pay attention to this because it can affect someone in using mobile wallets. For instructions on the use of mobile wallets (self efficacy) it will not affect users in using mobile wallets. Because users tend to be self-taught so it won't really affect users in using mobile wallets. Then trust does not affect because each mobile wallet has a different level of trust. Therefore, each mobile wallet must be registered with the OJK so that users have confidence in each application. This study only involved independent and intervening variables. Therefore, further researchers can use moderator variables. Then, the future research can also add some independent variables.

REFERENCES

Al-Emran, M., Al-Maroof, R., Al-Sharafi, M. A., & Arpaci, I. (2020). What Impacts Learning with Wearables? An Integrated Theoretical Model. *Interactive Learning Environments*, *30*(10), 1897–1917. https://doi.org/10.1080/10494820.2020.1753216.

Al-Saedi, K., Al-Emran, M., Ramayah, T., & Abusham, E. (2020). Developing a General Extended UTAUT Model for M-payment Adoption. *Technology in Society*, *62*(C), 101293. https://doi.org/10.1016/j.techsoc.2020.101293.

Bank Indonesia (2018). Peraturan Bank Indonesia Nomor 20/6/PBI/2018 tentang Uang Elektronik. https://www.bi.go.id/id/publikasi/peraturan/Pages/PBI-200618.aspx.

Bank Indonesia (2020a). Apa itu Uang Elektronik. https://www.bi.go.id/id/edukasi/Pages/Apa-itu-Uang-Elektronik.aspx.

Bank Indonesia (2020b). Evolusi Sistem Pembayaran. https://www.bi.go.id/id/fungsi-utama/sistem-pembayaran/default.aspx.

Bashir, I., & Madhavaiah, C. (2015). Trust, Social Influence, Self-Efficacy, Perceived Risk and Internet Banking Acceptance: An Extension of Technology Acceptance Model in Indian Context. *Metamorphosis: A Journal of Management Research*, *14*(1), 25–38. https://doi.org/10.1177/0972622520150105.

Bashir, I., & Madhavaiah, C. (2015). Consumer attitude and behavioral intention towards Internet banking adoption in India. *Journal of Indian Business Research*, *7*(1), 67–102. https://doi.org/10.1108/JIBR-02-2014-0013.

Chen, L., & Aklikokou, A. K. (2020). Determinants of E-government Adoption: Testing the Mediating Effects of Perceived Usefulness and Perceived Ease of Use. *International Journal of Public Administration*, *43*(10), 850–865. https://doi.org/10.1080/01900692.2019.1660989.

Christiarini, R., & Rahmadilla, A. (2021). Analisis Faktor-faktor yang Mempengaruhi Purchase Intention Skincare Korea Mahasiswa Kota Batam. *Journal of Global Business and Management Review*, *3*(2), 29–39.

Chunxiang, L. (2014). Study on Mobile Commerce Customer Based on Value Adoption. *Journal of Applied Sciences*, *14*(9), 901–909. https://doi.org/10.3923/jas.2014.901.909.

Good News From Indonesia (2022). Ketahui 5 Dompet Digital Paling Banyak Digunakan di Indonesia 2021. https://www.goodnewsfromindonesia.id/2021/11/24/ketahui-5-dompet-digital-paling-banyak-digunakan-di-indonesia-2021.

Hair, J. F., Hult, G. T., Ringle, C., & Sarstedt, M. (2017). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM) - Joseph F. Hair, Jr., G. Tomas M. Hult, Christian Ringle, Marko Sarstedt. In *Sage* (Second). SAGE.

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to Use and How to Report the Results of PLS-SEM. *European Business Review*, *31*(1), 2–24. https://doi.org/10.1108/EBR-11-2018-0203.

Hallem, A. P. Y., Abbes, A. P. I., Hikkerova, P. L., & Taga, M. P. N. (2021). A Trust Model for Collaborative Redistribution Platforms: A Platform Design Issue. *Technological Forecasting and Social Change*, 120, https://doi.org/10.1016/j.techfore.2021.120943.

Joseph F. Hair, J., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate Data Analysis* (8th ed.). New York, USA: Prentice-Hall, Inc.

Kata Data (2022). Bank Indonesia: Transaksi Uang Elektronik RI Tembus Rp 35 Triliun per Desember 2021. https://databoks.katadata.co.id/datapublish/2022/01/31/bank-indonesia-transaksi-uang-elektronik-ri-tembus-rp-35-triliun-per-desember-2021.

Kim, B., & Kim, D. (2020). Exploring the Key Antecedents Influencing Consumer's Continuance Intention toward Bike-Sharing Services: Focus on China. *International Journal of Environmental Research and Public Health*, *17*(12), 1–14. https://doi.org/10.3390/ijerph17124556.

Kim, S. H., Song, M. K., & Shim, C. (2020). Storytelling by Medical Tourism Agents and Its Effect on Trust and Behavioral Intention. *Journal of Travel and Tourism Marketing*, *37*(6), 679–694. https://doi.org/10.1080/10548408.2020.1795046.

Koenig-Lewis, N., Marquet, M., Palmer, A., & Zhao, A. L. (2015). Enjoyment and Social Influence: Predicting Mobile Payment Adoption. *Service Industries Journal*, *35*(10), 537–554. https://doi.org/10.1080/02642069.2015.1043278.

Kontan (2022). BI Catat Transaksi Uang Elektronik Senilai Rp 305,4 triliun Sepanjang 2021. https://keuangan.kontan.co.id/news/bi-catat-transaksi-uang-elektronik-senilai-rp-3054-triliun-sepanjang-2021.

Kumar, J. A., Bervell, B., Annamalai, N., & Osman, S. (2020). Behavioral Intention to Use Mobile Learning: Evaluating the Role of Self-efficacy, Subjective Norm, and Whatsapp Use Habit. *IEEE Access*, *8*, 208058–208074. https://doi.org/10.1109/ACCESS.2020.3037925.

Liu, Y., Gan, Y., Song, Y., & Liu, J. (2021). What Influences the Perceived Trust of a Voice-enabled Smart Home System: An Empirical Study. *Sensors*, *21*(6), 1–22. https://doi.org/10.3390/s21062037.

Media Center Batam (2020). Transaksi Non Tunai Meningkat Selama Pandemi Covid-19. https://mediacenter.batam.go.id/2020/06/25/transaksi-non-tunai-meningkat-selama-pandemi-covid-19/.

Media Indonesia (2021). Covid-19 Mewabah, WHO Sarankan Transaksi Digital. Media Indonesia. https://mediaindonesia.com/weekend/296138/covid-19-mewabah-who-sarankan-transaksi-digital.

Merdeka, R. (2021). Jumlah Konsumen Dompet Digital Melonjak Pengguna Butuh Jaminan Transaksi Dan Simpanan. Rm.Id. https://rm.id/baca-berita/nasional/80885/jumlah-konsumen-dompet-digital-melonjak-pengguna-butuh-jaminan-transaksi-dan-simpanan.

Patten, M. L., & Newhart, M. (2018). Understanding Research Methods. In *Understanding Research Methods* (10th ed.). https://doi.org/10.4324/9781315213033.

Purwianti, L. (2022). The Influence of Halal Awareness, E-WOM towards Intention to Buy Halal Cosmetics: The Role of Mediation Attitude. *Journal of Business Studies and Management Review*, *5*(2), 281–287. https://doi.org/10.22437/jbsmr.v5i2.17693.

Putra, E. Y. (2021). Instant Shopping – Millennial User in Batam City During Covid-19 Pandemic Services. *Jurnal Riset Bisnis dan Manajemen*, *14*(1), 1–6. https://doi.org/10.23969/jrbm.v14i2.3558.

Saprikis, V. (2018). Examining Behavioral Intention towards Social Commerce: An Empirical Investigation in University Students. *Proceedings of the 32nd International Business Information Management Association Conference, IBIMA 2018 - Vision 2020: Sustainable Economic Development and Application of Innovation Management from Regional Expansion to Global Growth*, 831–843.

Saprikis, V., & Markos, A. (2018). Modeling Users' Acceptance of Social Commerce. *International Journal of E-Business Research*, *14*(4), 28–50. https://doi.org/10.4018/IJEBR.2018100102.

Saprikis, V., Markos, A., Zarmpou, T., & Vlachopoulou, M. (2018). Mobile Shopping Consumers' Behavior: An Exploratory Study and Review. *Journal of Theoretical and Applied Electronic Commerce Research*, *13*(1), 71–90. https://doi.org/10.4067/S0718-18762018000100105.

Schlaegel, C. (2015). Understanding Individuals' Initial and Continue Use Online Auction Marketplace. *Management Research Review*, *38*(8), 855–907. https://doi.org/http://dx.doi.org/10.1108/MRR-09-2013-0210.

Sekaran, U., & Bougie, R. (2016). Research Methods for Business. In *Wiley* (7th ed.). https://doi.org/10.1007/978-94-007-0753-5_102084.

Seo, K. H., & Lee, J. H. (2021). The Emergence of Service Robots at Restaurants: Integrating Trust, Perceived Risk, and Satisfaction. *Sustainability (Switzerland)*, *13*(8). https://doi.org/10.3390/su13084431.

Suhartanto, D. (2019). Predicting Behavioural Intention toward Islamic Bank: A Multi-group Analysis Approach. *Journal of Islamic Marketing*, *10*(4), 1091–1103. https://doi.org/10.1108/JIMA-02-2018-0041.

Tao, D., Fu, P., Wang, Y., Zhang, T., & Qu, X. (2019). Key Characteristics in Designing Massive Open Online Courses (MOOCs) for User Acceptance: An Application of the Extended Technology Acceptance Model. *Interactive Learning Environments*, 1–14. https://doi.org/10.1080/10494820.2019.1695214.

Tempo (2022). Hacker Bobol Data 10 Juta Pelanggan Telekomunikasi Australia. https://dunia.tempo.co/read/1638773/hacker-bobol-data-10-juta-pelanggan-telekomunikasi-australia.

To, A. T., & Trinh, T. H. M. (2021). Understanding Behavioral Intention to Use Mobile Wallets in Vietnam: Extending the TAM Model with Trust and Enjoyment. *Cogent Business and Management*, *8*(1). https://doi.org/10.1080/23311975.2021.1891661.

Wu, W., Wu, Y. J., & Wang, H. (2021). Perceived City Smartness Level and Technical Information Transparency: The Acceptance Intention of Health Information Technology during a Lockdown. *Computers in Human Behavior*, *122*(March), 106840. https://doi.org/10.1016/j.chb.2021.106840.

Ye, S., Ying, T., Zhou, L., & Wang, T. (2019). Enhancing Customer Trust in Peer-to-peer Accommodation: A "Soft" Strategy via Social Presence. *International Journal of Hospitality Management*, *79*, 1–10. https://doi.org/10.1016/j.ijhm.2018.11.017.

Zhai, N., & Ma, X. (2021). Automated Writing Evaluation (AWE) Feedback: A Systematic Investigation of College Students' Acceptance. *Computer Assisted Language Learning*, *0*(0), 1–26. https://doi.org/10.1080/09588221.2021.1897019.

Zhang, X., Liu, S., Wang, L., Zhang, Y., & Wang, J. (2020). Mobile Health Service Adoption in China: Integration of Theory of Planned Behavior, Protection Motivation Theory and Personal Health Differences. *Online Information Review*, *44*(1), 1–23. https://doi.org/10.1108/OIR-11-2016-0339.