

The Analysis of Factors Affecting Behavioral Intention and Behavior Usage of E-Wallet Using Meta-UTAUT Model

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Abstract— Massive increase in e-wallet users makes e-wallets an alternative payment transaction method in Indonesia. Research and surveys by Boku Inc. predict that e-wallet users in Indonesia will increase by three times in 2025. This study aims at identifying the factors underlying users' intention and behavior in using e-wallet services by applying the meta-UTAUT model. Variables were examined in the meta-UTAUT model, and other variables, including anxiety, trust, redressal, and service smartness, which underlie the purpose and behavior of using e-wallets from the user's perspective were added. This research is a quantitative study making use of primary data collected through online questionnaires to 269 e-wallet service users. The PLS-SEM method was utilized as a statistical analysis method with SmartPLS 3.3.3 software to process the data. This study found that trust has a positive effect on acceptance attitudes, redressal has a positive effect on trust, and service smartness has a positive effect on behavioral intentions. In contrast, anxiety negatively influences user attitudes towards e-wallet services, while effort expectancy and social influences have no direct and insignificant effect on intentions to use e-wallets. To contribute to e-wallet research that focuses more on the user's perspective, further research is on investigations of perceived security and perceived risk so that the model used can have predictive relevance with a higher R-square value.

Keywords— E-wallet; technology acceptance; meta-UTAUT; adoption; acceptance model; redressal.

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I. INTRODUCTION

A relatively low internet speed prices mainly cause smartphone users' massive growth. It contributed to making the smartphone a ubiquitous device [1], which led to various innovations and new technology variance, offering ease in many aspects such as entertainment, education, and finance. One of them is the innovation of finance transactions by e-wallets which has become a trend among smartphone users. The e-wallet is a transaction structure in which a web-based program or service enables users or clients to manage data relating to the acquisition, affiliation, and financial information in a centralized location [2]. According to Bank Indonesia's regulation number 18/40/PBI/2016, e-wallet is an electronic service that maintains payment data through instruments such as cards and e-money that accommodate payment balances [3].

The popularity of cashless payment helps increase e-wallet usage demand [1]. In Indonesia, e-wallet is growing massively, wherein more merchants are started to accept cashless payment as a substitute payment method. The

government and Bank Indonesia also support this method through the National Non-Cash Movement program, leading to the development of QRIS (Quick Response Code Indonesian Standard) to help simplify the payment process through e-wallets [4]. Surveys by Boku Inc. in 2020 towards e-wallet growth in 32 countries show that Indonesia has ranked as the third-fastest e-wallet payment penetration. Boku Inc. predicted that Indonesia will gain more than triple the number of users, from 63.5M in 2020 to 202M in 2025 [5]. The massive growth and development of e-wallets raise questions for researchers, especially regarding the aspects motivating user behavioral intentions and the use of e-wallet transactions. Many theoretical models are proposed and developed to help explain factors encouraging the end-users.

Venkatesh et al. proposed The Unified Theory of Acceptance and Use of Technology or UTAUT in 2003 by integrating eight other information system models [6]. It can explicate the higher variance of behavior intention than the other eight models by these constructs, i.e., performance expectancy, effort expectancy, social influence, and facilitating conditions. Researchers modified the UTAUT

models to enhance research variance. The Meta-UTAUT model utilizes attitude as a mediating variable between exogenous and endogenous variables [7]. This model shows that attitude will affect the variance obtained in a model on technology acceptance to higher values.

This study also researched anxiety. The system does not make users anxious and will be accommodated positively by the users [8]. However, if the user is nervous and the service provider takes no corrective action, it can affect the user's attitude in a negative direction. Therefore, a redressal system, morals, and materials are needed to maintain users' trust [9]. Users' trust will then affect their attitude toward using e-wallets in a positive direction [10]. Service smartness also affects the user's perception that e-wallets are smart and can help users through their services [11]. Previous research has confirmed that anxiety, trust, redressal, and service smartness have a significant role in attitude, behavior intention, and usage of e-wallets [9]–[12]. However, the originality of this study is the investigation of anxiety, trust, redressal, and service smartness factors applied simultaneously using the meta-UTAUT model on the use of e-wallet research. The literature review confirmed that the research conducted in previous studies was still partial and used a different model.

II. MATERIALS AND METHOD

A. Literature Reviews and Research Model Development

This literature review was conducted to determine the suitable model for the studies and compare the variables and the relationships between each variable based on previous research. The relationship between each variable will develop a hypothesis, while all developed hypotheses will form the proposed model of this research.

Mobile payment is characterized as a payment system that operates through mobile devices, in which money or balance owned by users can be transferred between the sender and recipient with or without an intermediary process that begins with the initiation, authorization, and payment completion process [13]. Mobile payments can also be defined as smartphone applications that allow secure payment transactions to be carried out wirelessly [14]. These payments can be used in various systems such as SMS (Short Message Service), NFC (Near Field Communication), WAP (Wireless Application Protocol), or QR (Quick Response Code).

One of the mobile payment options is through e-wallets, which Indonesians widely use. E-wallets have extreme market competition due to the high growth and high market opportunities between five of the most well-known e-wallet apps in Indonesia: GoPay, OVO, DANA, ShopeePay, and LinkAja. Based on a survey by Boku Inc., users benefit from around 3.2 e-wallet applications to maximize their profits in payment transactions. Indonesia is also one of the countries with a fast payment transition from cash to digital [5]. E-wallet helps the public to make non-cash transactions because the balance or money will be transcribed and stored in digital form.

Studies conducted on redressal have been carried out in India [9], [10], yet this has never been discussed, especially in the context of technology recognition in Indonesian e-wallets. In addition, research on service smartness in mobile payments has been done in America and South Korea [11]. Literature review revealed that the meta-UTAUT model has not been

broadly used in research on technology acceptance in Indonesia. Using the meta-UTAUT model will result in more varied research so that the variance value will be better [15].

The UTAUT model has four vital factors: Performance Expectancy, Effort Expectancy, Social Influence, and Facilitating Condition, which are mainly used in predicting the relationship between these main features and Behavior Intention and Behavior Usage. Over the past few years, researchers have considered UTAUT the most popular theory for information systems adoption study [16]. The model can explain more variations in behavior intention than the other eight information system adoption models [6]. Since the evolution of the UTAUT model and its extension, UTAUT2, this model has been used to study some different information technology contexts, such as healthcare, mobile banking, e-wallets, and many more. It has been confirmed as one of the all-inclusive models for the acceptance and use of technology, even though it still has several limitations [17].

Several studies concluded that the UTAUT model is complex and has not been operated in its original UTAUT model form [15]. Therefore, a meta-UTAUT model was developed based on the research by Dwivedi, using four main exogenous variables from the UTAUT model [15], and adding two endogenous variables, comprising Behavior Intention and Behavior Usage. Attitude was added as a mediating variable between exogenous and endogenous variables.

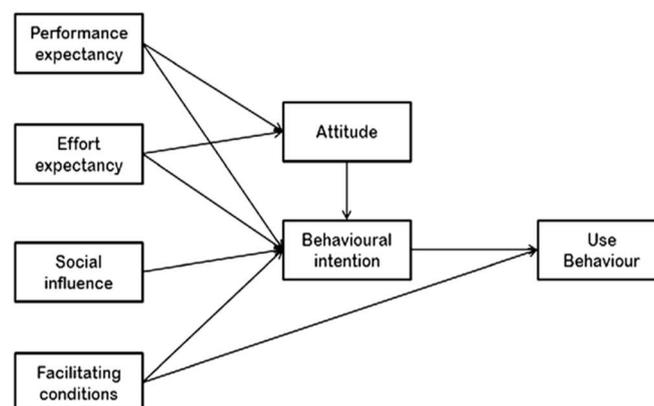


Fig. 1 Meta-UTAUT Model [7]

Based on Fig. 1, the meta-UTAUT model also offers direct and mediating effects of Attitude on Behavior Intention, which shows that information system-based innovation can be formed on the studies of user attitudes towards the technology, even though users do not directly anticipate using the technology [7].

In the meta-UTAUT model of this study, there are eleven variables, seven of which are meta-UTAUT variables, while the remaining four are additional variables. The meta-UTAUT variables are Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Conditions, Behavior Intention, Behavior Usage, and Attitude. Then added other variables such as Anxiety, Trust, Redressal, and Service Smartness. The following are the variables in this study.

Performance Expectancy is the degree to which a person considers that utilizing a particular system or service would assist them in gaining benefits when executing specified tasks [6]. Performance expectancy is determined by the expected

benefits of utilizing e-wallets, consisting of convenience payments, fast response, and service effectiveness [16]. In e-wallets context, performance expectancy will offer benefits for users in the form of ease of use, payment, and satisfaction [17]. This will also influence user attitudes in a positive direction toward the use of e-wallets and increase the value of using the existing system [10]. It shows that performance expectancy has a positive and significant effect on attitude [10], [12], and performance expectancy has a positive and significant effect on behavior intention [8], [17], [18]. Hence, the following hypotheses were formed:

- H1: Performance Expectancy (PE) positively influences Attitude (AT).
- H2: Performance Expectancy (PE) positively influences Behavior Intention (BI).

Effort expectancy is the level to ease of use of the technology, which is a combination of perceived ease of use variables on TAM, complexity on MPCU, and ease of use on IDT [10]. Effort Expectancy is the perceived level of easiness in using a system [6]. Users will feel more encouraged to use particular technology if it is trusted to improve its performance without difficulties. It is found that convenience level becomes a feature that drives the aim to use an e-wallet [16]. This will influence users to be more motivated and manifest their desire to use technology, especially when they believe it can facilitate the work they need. Previous studies show numerous results regarding the relationship between effort expectancy, and some studies indicate a significant correlation in their relationship with effort expectancy.

In contrast, the results of other studies do not significantly influence effort expectancy. Some studies on e-wallets show that effort expectancy has a positive and noteworthy consequence on attitude [10], [12], followed by studies that show that effort expectancy has a positive and significant influence on behavior intention [11], [17]. Therefore, the following hypotheses were formed:

- H3: Effort Expectancy (EE) positively influences Attitude (AT).
- H4: Effort Expectancy (EE) positively influences Behavior Intention (BI).

Social Influence is the degree to which individuals feel regarding how important other people's trust is to influence the usage of new system [6]. In other words, it explains the influence of social environments such as friends, family, and colleagues on shaping a person's behavior on using e-wallets. Furthermore, this shows that the closeness between family members, friends, or colleagues has a positive and significant effect on individual attitudes in making decisions to use e-wallets [19]. Users can also develop their images using technology, where they gain confidence to obtain status and social images based on their group preference [17]. A study by Shin and Lee [11] reported that social influence does not impact the intent to use NFC in Korea and America, with the perception that NFC users use this technology based on their desires, instead of receiving influence of other people [10]. However, studies by Patil et al. [10] and Rana et al. [12] have concluded a contrasting result as social influence shows a positive and significant effect on user attitudes, and research by Gunawan et al. [8] and Sivathanu [17] provides evidence that social influence positively contributes to behavior

intention in using e-wallets. Therefore, the hypotheses were formed:

- H5: Social Influence (SI) positively influences Attitude (AT).
- H6: Social Influence (SI) positively influences Behavior Intention (BI).

According to previous research, there are some differences in the definition of facilitation conditions. Venkatesh et al. define facilitating conditions as the degree to which an individual asserts in the infrastructure within their organization and the operational tools available to support the system [6]. In contrast, Widyanto et al. [19] considered that facilitating conditions are the ability of an individual to access and provide guidance while using the system. The conditions that facilitate are closely related to an individual decision-making process. Moreover, Sivathanu [17] describes the facilitation condition as the user's perception of the support and available resources that can help the use of e-wallets, especially when they can easily access and use technology.. The previous study has also shown that facilitating conditions show a significant influence on effort expectancy or its substitute variable (perceived ease of use) due to the availability of operational infrastructure that exists and helps users to understand the procedures for using e-wallets, notably through mobile phones with an easier process [10]. In addition, these facilitating conditions are also closely related to aspects of individual decision-making to use e-wallets. It is found that facilitating conditions strongly influence behavior usage [16]. These results align with the study by Patil et al. [10] and Jadir et al. [16], signifying that the facilitating conditions have a positive and significant effect on behavior usage and effort expectancy. Therefore, the following hypotheses were formed:

- H7: Facilitating Condition (FC) positively influences Behavior Usage (BU).
- H8: Facilitating Condition (FC) positively influences Effort Expectancy (EE).

Anxiety denotes the fear (sadness, perception, and tension generated by stressful conditions) that people experience when interacting with technology. It can also appear as a fear of losing data or making crucial mistakes while using the technology [10]. Anxiety could affect users' decision-making and increase their attention toward negative possibilities, and they will also avoid actions that can enable these negative situations to happen [20]. Anxiety will influence users to prevent technological events reckoned as a threat, especially since they only have partial control of the system [12]. Anxiety can affect their negative attitudes toward using e-wallets, and increasing trust from users will reduce the level of stress experienced [10]. In addition, users with high anxiety level towards this technology are likely to have a negative attitude toward the use of technology. The study on MSME (Micro, Small and Medium Enterprises) in Indonesia by Gunawan et al. [8] shows that anxiety positively influences the use of e-money where users already perceive that e-money is easy to use. Users can receive technical assistance if facing difficulties or problems using e-money. However, this study shows a contrasting result to a study by Patil et al. [10] in India that offers a significant and negative influence on user attitudes, which indicates that users with long experience in using e-wallets will still feel anxious while using an e-wallet.

Another study by Donmez-Turan [21] also proved that anxiety negatively influences attitude mediated by the adoption of readiness variables. Therefore, the hypothesis was formed:

- H9: Anxiety (AX) negatively influences Attitude (AT).

Trust is the willingness to be faithful to a service provider constructed on affirmative expectations and represents three dimensions: ability, integrity, and benevolence [9]. Ability is the degree to which service providers are supposed to maintain a set of skills and capabilities enabling them to affect particular performances [22]. Integrity is the extent to which the service provider is recognized to follow a set of allowable principles [22]. Benevolence is the extent to which service providers desire to do good for their users despite the egocentric profit motive, which reflects the emotional reasons to trust [22]. However, in the e-wallet context, trust can only support ability and integrity, which provides subjective assurance that users will have a positive practice with e-wallet service providers. Thus, if users are not sure about the services, they cannot gain a convincing experience [10]. Trust is also considered one of the most fundamental pillars in marketing theory and is acknowledged as one of the foundations for conducting trade transactions [19]. In e-wallets, trust can also mean that users have an assurance that the services are safe and reliable [18]. Trust from e-wallet users is important, especially for services that have anonymity (confidentiality) and lack direct interaction between users and digital services. These further reinforce the importance of trust in e-wallet services. Hence, trust significantly affects attitudes toward e-wallets and increases users' positive attitudes [10]. A study by Widyanto et al. [19] discloses that trust has a positive and significant impact on behavior intention usage on e-wallets in Indonesia and proves that e-wallet services should guarantee that the system is reliable, fast, and can be used everywhere (ubiquitous). Hence, the subsequent hypothesis was formed:

- H10: Trust (TR) positively influences Attitude (AT).

Service smartness is the opinion that e-wallets are intelligent services. Service smartness consists of 5 features: autonomy, adaptability, reactivity, multi-functionality, and the ability to cooperate [11]. Adaptability means that technology can suit users' lifestyles; multi-functionality implies that technology has various functions as an innovative product or service; autonomy is outlined as the capacity to function independently; reactivity is defined as the ability to adapt to the environment and the capability to cooperate means that technology can work together and have goals that in line with other technologies [23]. Service smartness is the users' perception that e-wallets are smart services. Only one previous study has discussed service smartness in mobile payment services, such as NFC (Near-field communication) benefit. A survey by Shin and Lee [11] found that service smartness significantly influences behavior intention due to the development of massive e-wallet usage in various aspects of transaction payments. E-wallets could perform several functions other than payment transactions, such as storing payment receipts, calculating the balance, and collecting points. In addition, e-wallets can make payments via QRIS, which helps the transaction process easier to implement and adapt to the surrounding environment. Besides, e-wallets enable various payment functions, such as transferring

payments, paying for subscription services, buying mobile data, paying for games, etc. E-wallets can also be integrated as an online shop payment option and help the shopping payment process be easier and faster. Hence, e-wallets could be more prominent and used as an essential payment system. Therefore, the following hypothesis was formed:

- H11: Service Smartness (SS) positively influences Behavior Intention (BI).

Redressal is a form of compensation that includes a refund, replacement, or discount given from service providers to consumers and is a fundamental factor in influencing users' perception based on benevolence and integrity, which reflect that service owners hold users' interests ahead and honor promises rather than profit motives [24]. Users feel safe and transparent while using the service and continue to use e-wallet services [9]. Redressal policy is stated in their terms and conditions and regulated in Peraturan Bank Indonesia (PBI) on 18/06/PBI/2018. These indicated that e-wallet service providers must have a compensation mechanism for financial loss if the users' fault or negligence does not cause it. Redressal is related to internal complaint handling procedures, where users can complain when problems occur on e-wallet transactions [24]. It will provide legal and social protection guarantees to help users overcome payment failures and generate trust [9]. A previous study conducted by Patil et al. [10] on transaction failures in India proves that redressal has a significant and positive influence on trust, which indicates that services need to provide transparency in solving problems. However, there has been no research on the effect of the redressal variable in Indonesian e-wallets. Therefore, the hypothesis below was formed:

- H12: Redressal (RD) positively influences Trust (TR).

Attitude is the extent to which users have a positive or negative assessment of service and is an important variable in several models of information system adoption theory, such as TRA (Theory of Reasoned Action), TAM (Technology Acceptance Model), and DTPB (Decomposed Theory of Planned Behavior) in evaluating its effect on use intention [10]. Attitude in the meta-UTAUT model is a mediating variable that could improve the presentation of users' choice to use a system [12]. Attitude is important in determining usage intentions to increase the model variance [25]. This explains that the more positive the attitude users show, the higher the desire to use e-wallets. Attitude is also important in studying users' intentions to use technology. The study by Patil et al. shows that attitude can increase the model variance in apprehending technology use by e-wallet users and has a positive and noteworthy influence on behavior intention [10]. This is in proportion to the study by Upadhyay et al., which further proves that attitude has a positive and substantial effect on behavior intention [25].

Therefore, the hypothesis was proposed:

- H13: Attitude (AT) positively influences Behavior Intention (BI).

Behavior Intention is an inseparable fragment of the UTAUT model to calculate the level of an individual's intentions and efforts to act. Over the years, researchers have assumed that intentions can capture individual motivational factors influencing them to do something [6]. Behavioral intention also suggests the extent of willingness to perform particular tasks and can help identify the user's intention to do

the work voluntarily [26]. Behavior usage can also be defined as actual behavior and frequency of use in the context of technology [27]. Behavioral intention has the most significant influence on the model [10]. Several studies do not include behavior usage variables in the model due to the lack of consistency in measuring indicators and measuring responses to appraise this variable. However, with the development of the research area starting to move towards service maturity, and the data collected are also based on users of e-wallets, it is better to utilize behavior usage variables for model assessment. In addition, the most significant variable was found in the relation of behavior intention to behavior usage. Studies by Patil et al. [10] and Shin and Lee [11] confirm the positive and significant influence of behavioral intention on behavior usage. Therefore, the following hypothesis was formed.

- H14: Behavior Intention (BI) positively influences Behavior Usage (BU).

The research model could be developed from those fourteen hypotheses, as in Fig. 2.

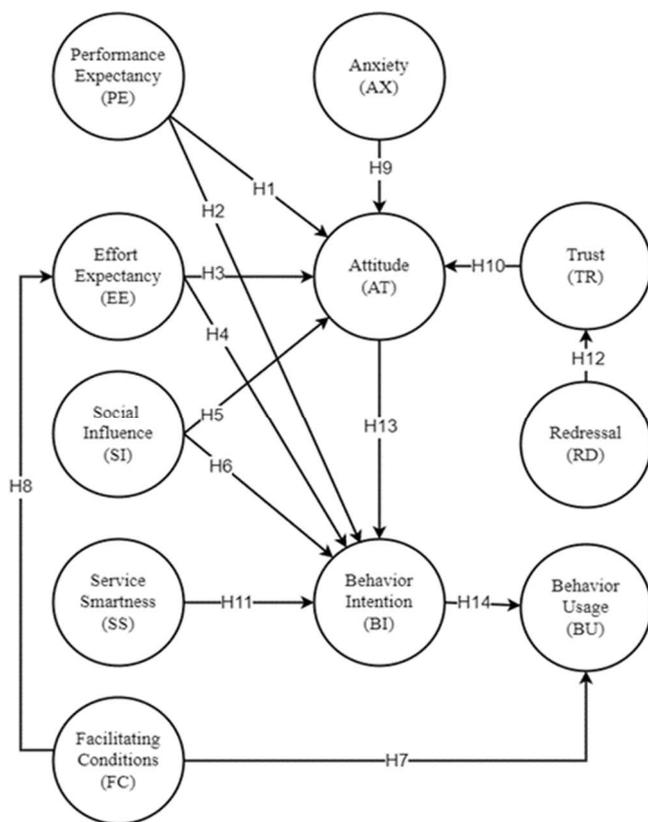


Fig. 2 Research Model

B. Method

This study utilizes a quantitative method by drawing conclusions based on the collected data. Quantitative surveys were regarded suitable for as the validated scale from the adoption studies in mobile payments had been available to measure its latent construct [10], [12]. This data collection was carried out through online questionnaires. Respondents filled in the data using a Likert scale of 1-5 based on their perceived impression, experience, and attitude toward e-wallets. The data was processed and assessed by SmartPLS

3.3.3 software using the PLS-SEM (Partial Least Square-Structural Equation Modeling) method.

PLS is a composite-based approach to SEM that stresses predictive capability when assessing composite models with causal-explanatory structures [28]. SEM is a multivariate data analysis applied in marketing research because it can theoretically evaluate and is supported by a linear and additive causal model, which examines the relationship between variables to prioritize resources [29]. This PLS-SEM provides a more accurate estimate with a small sample size than other statistical research models [28], [30]. Interest in using PLS-SEM has increased among software engineering researchers due to increased awareness of human factors that occur in its use and psychometric measurement factors used to study these factors [30]. In this study, convergent and discriminant validity were utilized for validation. Convergent validity indicates that a group of indicators epitomizes both a latent variable and the latent variable that lies beneath it. While discriminant validity is a supplementary notion, two conceptually different conceptions must demonstrate adequate differences.

Respondents participating in this study were people living in Indonesia who had used e-wallets. The number of respondents collected from distributing the questionnaires was 275, with six people not using an e-wallet, and 269 respondents matched the research criteria. In filling out this questionnaire, respondents need to fill in profile data consisting of name, gender, age, city of residence, occupation, income, type of e-wallet used, and usage frequency of an e-wallet. All of the respondents were Indonesian citizens and had used an e-wallet. Although the data collection was conducted in Indonesia, this study would confirm that redressal is a core element influencing the behavior of e-wallet users worldwide, with concerns about the risk of payment system failure.

Data were collected through a questionnaire using a Likert scale of 1-5 (1 = strongly disagree, 5 = strongly agree). This data collection was carried out online using google form media and distributed through social media such as WhatsApp, Instagram, and Twitter. While filling in the type of e-wallet, respondents can fill in with more than one service since Indonesians use an average of about 3.2 services to gain more benefits [5].

III. RESULT AND DISCUSSION

A. Results

In analyzing the data, convergent validity assessment has to be measured through the loading factor value, which should be higher than 0.70, which indicates the construct can explain more than 50% [28]. However, five items do not fit the criteria, such as SI4, FC3, RD4, SS5, and BU3. These five items were then deleted and recounted the loading factors value. After that, all objects seem to fit the criteria and can be concluded as valid as each construct's AVE (Average Variance Extracted) values were greater than 0.5. We also assessed Cronbach's Alpha and Composite Reliability, and the values should be more than 0.7. Thus, each test result meeting the convergent validity for the constructs was reinforced.

Additionally, it is essential to scrutinize the discriminant validity and compare the square root value of AVE to the correlation between model constructs. Discriminant validity is demonstrated if the value of the square root of AVE in each construct is greater than the correlation value with other constructs [31]. The next step is to assess the R-Square value, which value should be between 0 and 1, with the closer to 1 meaning that the exogenous variable can provide almost all the information needed to predict endogenous variables, and the smaller the value, meaning that the exogenous variable has a limited ability to explain endogenous variables [31]. The results present that AT, BI, and BU can explain 59%, 64.9%, and 60.5% of the endogenous variable, respectively. Meanwhile, EE explains 34.4% and TR with 6.5% of the model.

Hypothesis testing was carried out by SmartPLS 3.3.3. In this test, the path coefficient values consist of the original samples, T-statistics, and P-value to determine the hypothesis regarding whether it will be accepted or rejected. Actual examples will show the relationship influence on the variable, with the original sample's value above 0, indicating that the hypothesis has a positive and negative effect below 0. Furthermore, the significance test is determined based on the value of the T-statistics and P-value. The T-statistic should have a value above the T-table value of 1.96, with the P-Values having a value smaller than the significance level of 5% or 0.05.

The test shows two rejected hypotheses: H4 shows if EE has a positive and significant influence on BI, and H6 shows if SI has a positive and considerable impact on BI. Hypothesis 4 proves that EE has a positive and insignificant effect on BI, so the hypothesis is rejected. The same goes for hypothesis 6, which proves SI has a positive and insignificant influence on BI, so the hypothesis is rejected. The structural model testing result is detailed in Fig. 3.

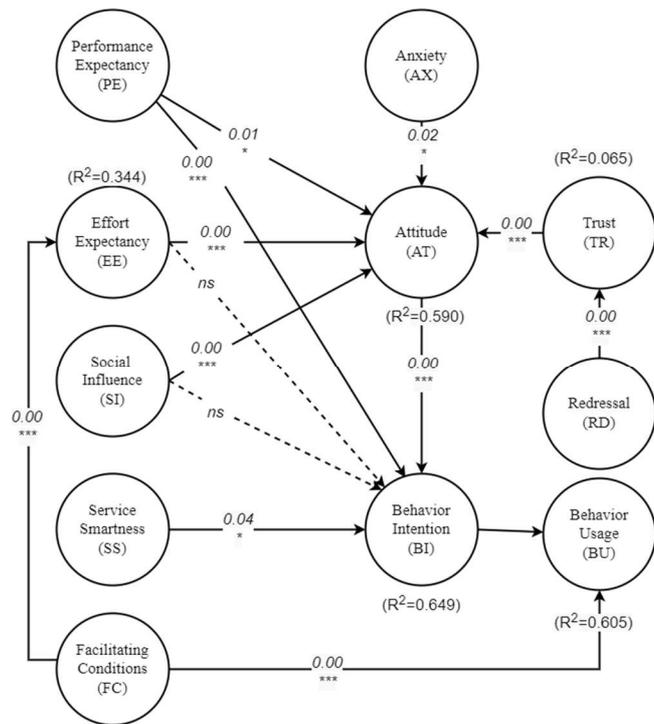


Fig. 3 The structural model testing result

B. Discussion

This research has made several important findings. It is found that PE shows a positive and considerable influence on AT, which is in line with a prior study in India [10], [12], which means that users' good perceptions can shape their acceptance of using e-wallets. Concerning BI, it found that PE has a positive and significant influence which is corresponding to research by Venkatesh [6], Al-Saedi et al. in Oman [18], and Sivathanu in India [17]. According to Al-Saedi et al. [18], the more efficient performance on e-wallets will increase the intention to use the service, which means that better performance will generate more interest to start using or if they have used an e-wallet, they will want to use it more often.

EE shows a positive and significant influence on AT, which is consistent with the study by Patil et al. [10], which proves that EE is an important aspect that makes users interested and feels that it is easy to operate, especially in the e-wallet interface perspective. This means that individuals will have a positive attitude if the interface design is easy to understand and manage. However, the result proves that BI has a positive but insignificant influence on EE, which agrees with the preceding study by Jung et al. [32]. According to Rana [12], the service's usability, convenience, and benefits will directly affect the positive or negative feelings felt by the users compared to the objective to take advantage of it. This shows that the service's ease of use does not directly influence people's choice to use e-wallets.

SI exhibits a positive and significant influence on AT, which proves the investigation by Rana et al. [12], where information or stories shared by other people having used e-wallet services will help shape individual attitudes toward e-wallets. In the form of positive reviews from others, SI will influence them to think the same thing. However, it shows that SI has positive but insignificant results towards BI, which is in agreement with the studies by Shin and Lee [11] and Upadhyay et al. [25]. According to Shin and Lee, SI can be determined based on the user's decision-making process and does not affect BI since it is based on personal desires and not under other people's influence [11].

FC shows positive and significant results on BU, which proves the study by Upadhyay et al. [25] and Patil et al. [10], where infrastructure is a key point to e-wallet usage since users will use e-wallets more often and have more experience in using e-wallets. FC also affects user ease and is indicated by the results on EE that show positive and significant influence. This study follows Upadhyay et al. [25] and agrees that the availability of resources, infrastructure, and support in the form of assistance affects the ease to use of e-wallet services. Users with supporting resources, such as a good internet network or supported devices, will find it easier to use e-wallets and decrease the difficulty they will experience. In addition, users' experience will help them understand and operate e-wallets better.

AX shows a significant negative influence on AT and further proves the previous studies by Patil et al. [10] and Donmez-Turan [21] in India and Turkey. According to Patil et al., this result shows that even though users have used the service for a long time, they will keep feeling anxious, worried, and afraid while operating the e-wallet [10]. This study shows that users are still concerned about losing

personal data and making irreparable mistakes since it is directly related to the balance or digital money. Consequently, if users make a mistake, they are afraid to lose their money or send it to the wrong person.

TR shows a positive and significant influence on AT, which is in proportion to the study by Patil et al. [10] that TR is the biggest aspect in predicting user attitudes and explains that with the presence of trust in e-wallets, users will also start to think positively about using the service. This positive attitude is formed because users trust e-wallets and believe in the technology adopted.

RD shows a positive and significant influence on TR and proves the study by Kumar et al. [9], which explains that e-wallet service providers must deliver secure and transparent transactions. RD will make users certain that e-wallets have legal and technological foundations that can protect users and offer solutions to their transaction problems. RD also leads to the perception that e-wallet service providers are responsible for solving transaction hindrances.

SS shows a positive and significant influence on BI, following the study by Shin and Lee [11]. The perception that e-wallets are smart services will make people crave to use e-wallets in the future or use it more often.

AT shows a positive and significant influence on BI and agrees with the prior study by Upadhyay et al. [25], showing that AT is the strongest factor influencing service usage intentions and strengthens the role of attitude in the meta-UTAUT. AT mediates PE, EE, SI, AX, and TR in this study. Mediation from AT can be interpreted as the more positive information received by the public will lead to better acceptance of e-wallets.

BI shows a positive and significant influence on BU and agrees with the study by Sitar-taut and Mican [33] and Shin and Lee [11]. According to Sivathanu, individuals' increasing enthusiasm will make them use it more frequently [17].

C. Limitation and Implication

Limitations for this research were on the data collection, in terms of gender and age, wherein this study is more inclined to female respondents and in the age group of respondents around 20-24 years old. This age group is also the most active in using technology, and the results might differ if the study is inclined toward the older age group. For future research, adding other variables, such as Perceived Security and Perceived Risk towards Trust [9], is recommended, so the model has a higher predictive relevance value or R-square value.

This study forms several implications for research and practice. PE positively influences AT and BI, so e-wallet developers should improve performance with easy payment procedures to support various payment transactions. PE will offer convenience while performing payment transactions. EE positively influences AT, and e-wallet developers should design a user-friendly interface so that users feel confident using it. SI has a positive and significant influence on AT, and it is concluded that positive reviews can give the perspective that an e-wallet is a beneficial service, but having good reviews and recommendations, cannot directly attract individual interest in using e-wallets. FC positively affects BU and EE, and accordingly, service developers should

provide assistance and guidance to help users understand and operate e-wallets and familiarize them with e-wallets.

AX negatively affects AT, motivating providers to build services with strong security to protect users' private information. Service providers can also promote their safety and privacy systems in marketing their services. In addition, it is better to assist while dealing with problems that occur by users to reduce their level of anxiety and increase their trust of users in the service. Therefore, e-wallet service providers should always build user trust to maintain a positive user attitude [18], even if the user has been using the service for a long time [1]. Building this trust can be done by maintaining the performance of the e-wallet, ensuring there are legal and technological guarantees that can support protecting the users, and ensuring strong security.

RD has a positive and significant influence on TR, so e-wallet service providers should promote the redressal mechanism to show that it is safe and trustworthy. Service providers should display the redressal handling form on an easy-to-find page or the main page so that users will find it easier to report their problems. It is well appreciated if there is an immediate response to the failed transaction and shows transparency in solving it.

SS has a positive influence on BI; therefore, e-wallet service providers are also expected to be able to develop their transactions, for example, by using QR or other payment mechanisms, providing better performance with service updates, carrying out various transaction functions, collaborating with other services, and integrating e-wallet as a payment option on other digital services.

AT positively influences BI; thus, e-wallet service providers are expected to ensure that e-wallet performance is quick and easy. Furthermore, e-wallets are expected to have a user-friendly interface, promote e-wallets socially with positive reviews, increase efforts to reduce user anxiety and provide guarantees in transactions to generate a positive attitude from the public towards e-wallets.

IV. CONCLUSION

This study is a quantitative study using the PLS-SEM method to decide the factors that encourage users' behavioral intentions in using the e-wallet. This study, which took a sample of respondents in Indonesia, found that the factors of trust, redressal, service smartness, and anxiety which were all related to the meta-UTAUT model, gave a large contribution to users' behavioral intentions to take benefits from e-wallets. However, some factors in the meta-UTAUT model had an indirect effect. Further research can be done to investigate risk and safety factors so that the resulting model has a better predictive relevance.

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