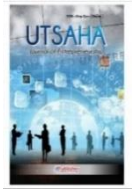

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The Impact of Mindfulness on Mobile Payment Tool Usage

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ABSTRACT

The application of mobile payment has not been spread to all Indonesians. However, there are many companies that have started to release and develop their own versions of mobile payment systems. Mobile payment systems, which are innovative forms of financial processing, connect customers and vendors online to complete transactions. The implication of mindfulness has been implicated in many mobile business intelligence technologies. Therefore, this research aims to determine the implications of mindfulness on mobile payment; to analyze hypotheses regarding the performance of mindfulness in affecting perceived usefulness, perceived ease of use, subjective norms, and attitudes. SEM applies with statistical methods in representing data and applies many models in achieving research objectives and resolving research problems. There were 251 data that represented active users who had experience in using mobile payments. The results of this research indicate that mindfulness has good exploratory strength in predicting consumer intention to adopt mobile payment, and it is proven that has a positive and significant impact on its four dimensions such as perceived ease of use, perceived benefits, and attitudes, which directly affect the intention to use.

Keywords: *Intention to Use, Mindfulness, Mobile Payment*

INTRODUCTION

The rapid growth of mobile devices is represented through the popularization of diverse mobile devices and the launch of 5G network bandwidth by telecom operators. All payment activities over mobile networks, whether voice, messaging or Near Field Communication (NFC), are called mobile payments (Lin et al., 2020). Mobile payment is a new payment method for financial transactions that provides both convenience and interactivity. Mobile payments can be defined as those payments that use a mobile device to initiate, authorize, and confirm a transaction (Jung et al., 2020). Mobile payment is a financial exchange between two people using wireless technology supported by the widespread adoption of consumer-based technology (Oliveira et al., 2016). The main benefit of mobile payments compared with conventional payments is that they are available anywhere and can be accessed anytime with the user's mobile device (Yunita & Andajani, 2020). Mobile payment applications have been used for several types of transactions, especially for mobile banking and mobile commerce. Using mobile devices, we can access banking services efficiently anytime and anywhere. Mobile payments allow us to transact goods and services by using mobile devices, such as a smartphone, tablet, or other mobile devices.

These consumers find mobile payments useful because they reduce cost, time, and energy. It allows them to make payments on time without having to go to the purchasing place. In addition, mobile payments are considered convenient because consumers always have their mobile phones with them. It indicates the widespread use of mobile phones, especially smartphones (Pantano & Priporas, 2016). Consumers also assume that mobile payment systems allow them to take benefit of available promotional offers, such as discounts and coupons. The social influencers of most family members, friends, and colleagues provide a major impact for many consumers to use mobile payment services. There are various reasons why mobile payment acceptance varies throughout countries, but the main reason is that a lot of factors affect people's intents to use mobile payments. In the Far East, mobile payments have been widely adopted by consumers. A different payment culture for UK consumers may be the reason for the lack of widespread adoption in the UK (Hampshire, 2017). According to Reshma (2017) demonetization in India has led to a significant growth in the use of mobile payments in this country. In addition, 38% of mobile payment users in India used to transfer money; 31% recharged to pay bills; while the rest of 31% spent funds on e-commerce, travel tickets, movie tickets, and more.

Although the adoption of mobile payments in the US with NFC seems to be increasing as measured by mobile wallet experience (rather than frequency of use), payments with NFC mobile wallets are not yet prevalent in the US. In Sung and Mayer's (2012) research, they compared the mobile device perceptions of college students from two countries. Korean students indicated a higher preference for

mobile devices than their colleagues in the US. Shin and Lee (2021) compared mobile users' behavior towards mobile payment services in Korea and the US. Although Korean users have more experience in mobile payment frequency, they found that users in the US are more sensitive to security in using mobile payments.

E-commerce has become one of the most popular trading media among young people in Indonesia. The existence of e-commerce-based companies such as OLX, Tokopedia, and Bukalapak has changed the conventional companies. Using e-commerce such as Shopee, Tokopedia, Bukalapak, Lazada, Zalora, and others, payment for products or services that consumers want to buy can be processed anytime and anywhere by only recharging an electronic wallet balance. Some research on mobile payments has been conducted over the years. While technology adoption has been understudied for much longer. In marketing, most research has focused on the factors that affect mobile payment adoption. Several theories and models from a variety of disciplines have been applied to provide further details, which include, Technology Acceptance Models (TAM); The Unified Theories of Acceptance and Use of Technology (UTAUT); Diffusion of Trust and Innovation theory; and Mental Accounting theory. These four models are the most adopted. In addition, these models have been used a lot to examine the adoption of technology (Dahlberg et al., 2015).

While these contributions in the adoption and use of sustainable technologies are encouraging, they do not fully reflect the more rational aspects of adoption, especially the fact that sometimes consumers do not come to these decisions based on realistic and mature considerations (Chen & Sintov, 2016). On the other hand, some researchers have recognized the need to incorporate psychological research into their studies (Raman & McClelland, 2019). The incorporation of concepts such as mindfulness can contribute to overcoming the existing shortcomings in the literature. According to Oredo & Njihia (2014) stated that mindfulness is closely related to innovative behavior because an individual's ability to achieve reliable performance depends on thinking and reflecting on changing situations. Mindfulness has been identified to have an impact on technology adoption in the context of rapidly changing technologies, whether users' perceptions can affect their adoption (Sun et al., 2016). Currently, there is less known about the impact of mindfulness in one's decision-making to adopt technology. Sun and Fang (2010) conceptualized mindfulness on a personal level and developed a model of mindfulness in technology adoption. The Theory of Planned Behavior (TPB) has two more constructs than TAM, which are subjective norms and perceived behavioral control. TAM states that not all humans behave voluntarily because many of them are under subjective control. Based on these models, this research aims to determine the implications of mindfulness on mobile payment; to analyze hypotheses regarding the performance of mindfulness in affecting perceived usefulness, perceived ease of use, subjective norms, and attitudes.

LITERATURE REVIEW

Technology Adoption Models

Acceptance has been considered as a function of user involvement in system development. In general, acceptance is defined as "the opposite of rejection and means a positive decision to use an innovation." Technology adoption is one of the mature research areas in information systems. Carr Jr (1999) defines technology adoption as the step of selecting a technology for use by an individual or organization. The rapid steps being made in technological innovation in every domain imaginable, issues related to technology adoption have become more prominent these days.

Reputable companies often seek to mold the evolution of technology applications to their own advantage (Wirtz & Lovelock, 2022). As technology grows more advanced and dynamic, the rate of consumer acceptance of these technologies depends on a variety of factors such as technology availability, convenience, consumer needs, security, and so on. These include the Diffusion of Innovation Theory (DIT) which started in 1960 (Miller, 2015); the theory of technology-task fit (TTF) (Papagiannidis, 2022); the theory of reasoned action (Montano & Kasprzyk, 2015); the Theory of Planned Behavior (TPB) (Taylor & Todd, 1995); Technology Acceptance Model (TAM) (Davis, 1989); Final Version of Technology Acceptance Model (TAM); Unified theory of technology acceptance and use (UTAUT); and Technology acceptance model 3 (TAM3) (Lai, 2017).

The decision to adopt certain technologies and the timelines involved in that decision have been the source of extensive research across multiple disciplines, and can affect businesses, schools and everyday life. Dahlberg et al (2015) reviewed articles on mobile payments from 2007 to 2014. One of the three studies in their analysis was a study on mobile payment adoption. These technology-based service adoption studies are concerned primarily with understanding consumer preferences and their reasons for adopting technology-based services, which is important for service providers trying to produce services that are valuable to them. The Theory of Planned Behavior (TPB) extends the theory of reasoned action (TRA) by including perceived behavioral control. Even when attitudinal and normative beliefs are supportive, there are other important circumstances that assist or may obstruct behavior (Ajzen, 1991).

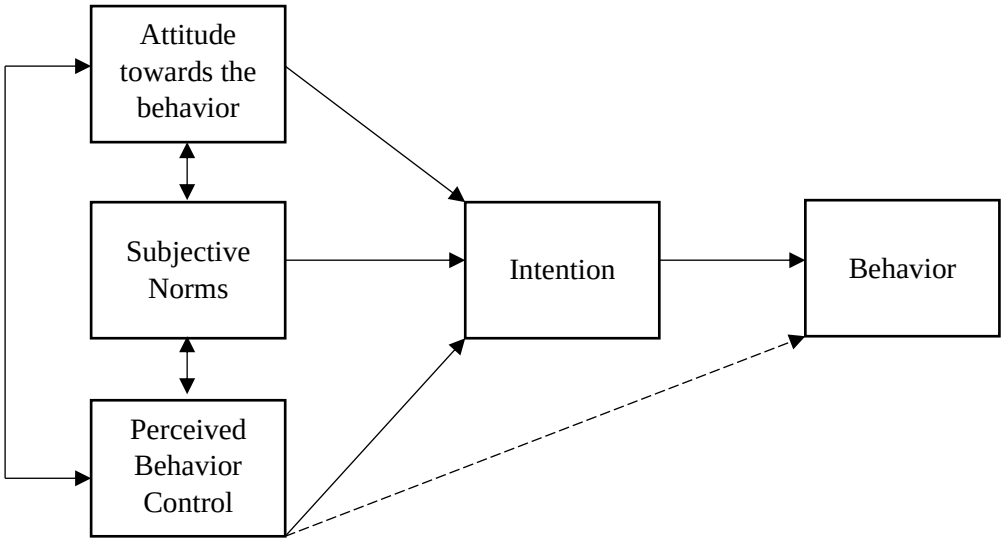

Figure 1. Theory of Planned Behavior

TAM is derived from the Theory of Reasoned Action (TRA) which assumed that individual acceptance of technology is affected by beliefs and through two variables, such as Perceived Usefulness (PU) and Perceived Ease of Use (PEOU) (Ajzen, 1991). In addition, they also stated that TAM is specifically intended to explain computer usage behavior. According to the TAM presented in figure 2, TAM controls a person's acceptance of technology directly and is affected by his or her intention, which then is affected by attitude toward use. Attitude towards use is subject to the simultaneous effects of the two variables, that is, PU and PEOU.

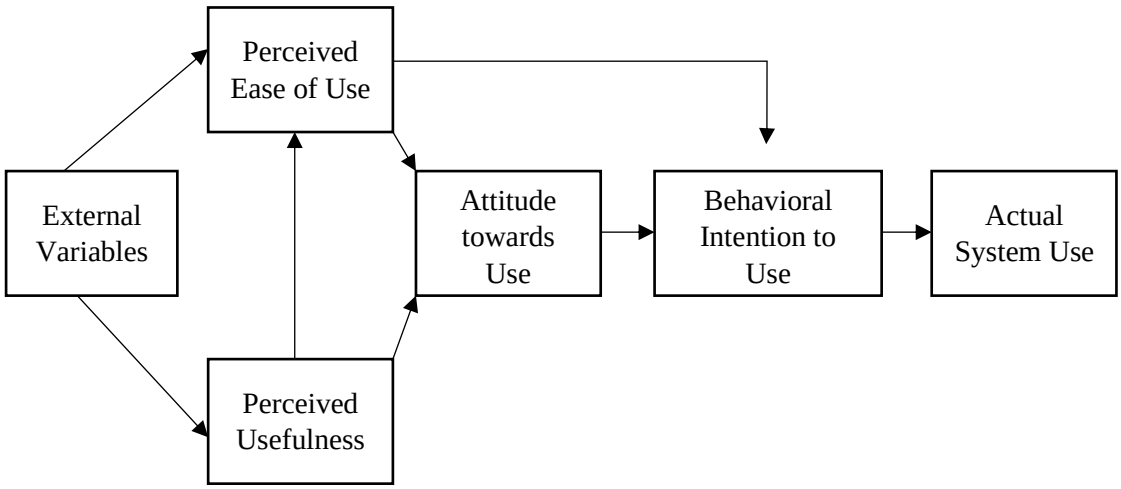

Figure 2. Original TAM

This research attempts to provide a broader perspective on this issue. The most frequently used variables in mobile payment adoption were taken as a starting point, such as perceived ease of use, perceived usefulness, attitude, and subjective norms (Liébana-Cabanillas et al., 2019). However, it is suggested that this

traditional adoption model can be enriched by adding other aspects that reflect the ways that users might face adoption challenges, such as the anxiety generated in the early stages of the process, which can be conditioned by the expectations of us (social norms) (Park et al., 2019). Therefore, in analyzing this issue from a broader perspective, the concept of mindfulness is introduced. In this research, it is indicated that mindfulness is a determining factor in explaining adoption.

Mindfulness

Langer argued that a mindful approach to any activity has three characteristics, such as the continuous creation of new categories; receptivity to new information; and implicit awareness of multiple perspectives. In addition, Langer also stated that mindfulness emphasizes on active processing of information. Whereas other researchers focus on open, receptive and mindful awareness of others' perspectives (Schuman-Olivier et al., 2020). In general, mindfulness means that the mind is present and engaged in everyday experiences (Feruglio et al., 2021). People who act mindfully are in an alert state of mind that allows them to be distinctive in their presence, precise, and more adaptively responsive to changes in their environment. Using mobile devices as usual, mobile payments can be completed instantly, particularly the usability of technology. Therefore, the hypothesis can be presented as follows:

H_{1a} : Mindfulness has a positive effect on Perceived Usefulness in using Mobile Payment.

The basic pillar of any technology development is ease of use, which minimizes the cognitive work required to exploit it. As mentioned earlier, under the state of mindfulness, technology users are more aware of their needs and the ways of technology can be adapted. In this case, the user's ability to evaluate the ease of use of the technology increases. Mindfulness can support high perceptions of information system usability. Thus, the hypothesis can be presented as follows:

H_{1b} : Mindfulness has a positive effect on Perceived Ease of Use in Adoption of Mobile Payment.

Tona and Carlsson (2014) state that mindfulness affects a company's decision-making process in adopting mobile business intelligence technology. Attentive people are those who are more concerned about functions and characteristics, tend to be more receptive to certain technologies. When users realize the novelty, convenience, and other positive differences of mobile payments, they will choose them over other alternatives. Thus, the hypothesis that can be presented as follows:

H_{1c} : Mindfulness has a positive effect on users' attitude towards mobile payment.

Perceived Usefulness

Perceived usefulness is the extent to which an individual believes that using a technology will improve their performance. Thompson et al (1991) stated that individuals will use information technology if the person will know the positive benefits or usefulness of its use. In mobile payments, the perceived benefits can convince consumers that the mobile payment process may be useful for certain purchases (Liébana-Cabanillas, Marinkovic, et al., 2018; Liébana-Cabanillas, Muñoz-Leiva, et al., 2018). It is important to recognize that people cognitively assess how well the technology fits them and the resulting judgment determines their assessment of the perceived usefulness of a particular technology. Perceived usefulness is also highly related to mental representations that describe the degree of instrumentality of certain actions with corresponding goals (Ajzen, 1991; Davis, 1989). In this case, it can be hypothesized such following below:

H_{2a} : Perceived usefulness has a positive effect on users' attitude towards mobile payment.

In mobile payments, if a person has experienced using it to purchase transportation fares, the experience allows the user to appreciate the benefits offered by mobile payments as payments in general. This leads to users continuing to adopt mobile payments over other payment methods.

H_{2b} : Perceived usefulness has a positive effect on users' intention to use mobile payment.

Perceived Ease of Use

According to Indarsin and Ali (2017), perceived ease of use is the level of a person's belief that using technology will reduce excessive effort. Perceived ease of use is the most significant and proposed in the assessment of mobile payment adoption. In TAM, it is suggested that perceived ease of use has a positive impact on perceived usefulness and indirectly affects intention to use and has a positive impact on attitudes towards new technology (Davis, 1989). (Gan et al., 2016)argued that Chinese consumers are concerned about the convenience and difficulty of using credit cards, which explains why mobile payments are widely accepted in China, the perceived ease of use of mobile payments is higher than credit cards. Therefore, the hypothesis that can be proposed as follows:

H_3 : Perceived Ease of Use has a positive effect on user attitudes towards mobile payment.

Subjective Norms

Subjective norms relate to the perceived social impact or pressure to comply or not comply with certain behaviors. Subjective norms convey individuals' beliefs about how they will be perceived by their reference group if they perform certain behaviors. The behavior of these people can affect how individuals perceive certain technologies and even how they behave. Subjective norms are defined as a person's perception of the importance to people in thinking that they should or not behave (Fishbein & Ajzen, 1975). Subjective norms according to the Theory of Reasoned Action (TRA) (Fishbein & Ajzen, 1975) and Theory of Planned Behaviour (TPB) (Fishbein & Ajzen, 1975), a person's intention to behave, determines his or her actions and the intention is subject to attitudes and norms. Fishbein & Ajzen (1975) referred to these social influences as subjective norms and also stated that these norms combined with personal attitudes can be used to predict behavior.

Chang (1998) has researched carefully the causal relationship between subjective norms and attitudes, stating that social affect, such as subjective norms, can form a person's attitude. Tarkianen and Sundgvist (Tarkiainen & Sundqvist, 2005) examined the relationship between subjective norms can affect consumer intentions through attitudes. Chang (1998) has carefully examined the causal relationship between subjective norms and attitudes, stating that social influences, such as subjective norms, can form a person's attitude. The following hypotheses that can be proposed as follows:

H_{4a} : Subjective norms have a positive effect on users' attitudes towards mobile payment.

On the other hand, Schepers and Wetzels (2007), in a meta-analysis of technology acceptance models, stated that subjective norms have an impact on perceived usefulness and behavioral intention to use. Mobile payments are similar, a person, having seen others, especially those perceived as trustworthy, using mobile payments, will feel pressure to use this type of payment. Therefore, subjective norms, like any social affect, can affect a user's intention to adopt a new technology.

H_{4b} : Subjective norms have a positive effect on users' intention to use mobile payment.

Attitude

Attitude is a psychological construct, which is formed by cognition (thoughts, values (beliefs) and affection (emotions) towards a certain object (Svenningsson et al., 2021). The behavioral component is the intention to behave, such as purchase intention and intention to recommend; the cognitive component refers to the experience, beliefs, and opinions of individuals towards a product or service; and has components such as feelings, emotions, and individual evaluations of a product

or service (Liébana-Cabanillas, Marinkovic, et al., 2018). Both TAM and TPB assume attitude as an important construct that affects users' intention or behavior in adopting a certain technology. Each individual tends to behave in a pleasant or unpleasant way towards a certain object. Peter and Olson (2014) defined attitude as an overall evaluation by consumers of an object. Sangadji & Sopiah (2013) argued that attitude is an individual's emotional response in their feelings of favor or disfavor towards certain objects. TAM develops TRA which explicitly states that individual behavior is affected by their intentions (Fishbein & Ajzen, 1975). Their intentions are formed by their respective attitudes towards certain behaviors. Along with previous research, this research argues that attitudes can affect positively the intention to adopt mobile payment services. The hypotheses that can be proposed as follows:

H_5 : Users' attitude towards mobile payments has a psotive effect on their intention to use mobile payments.

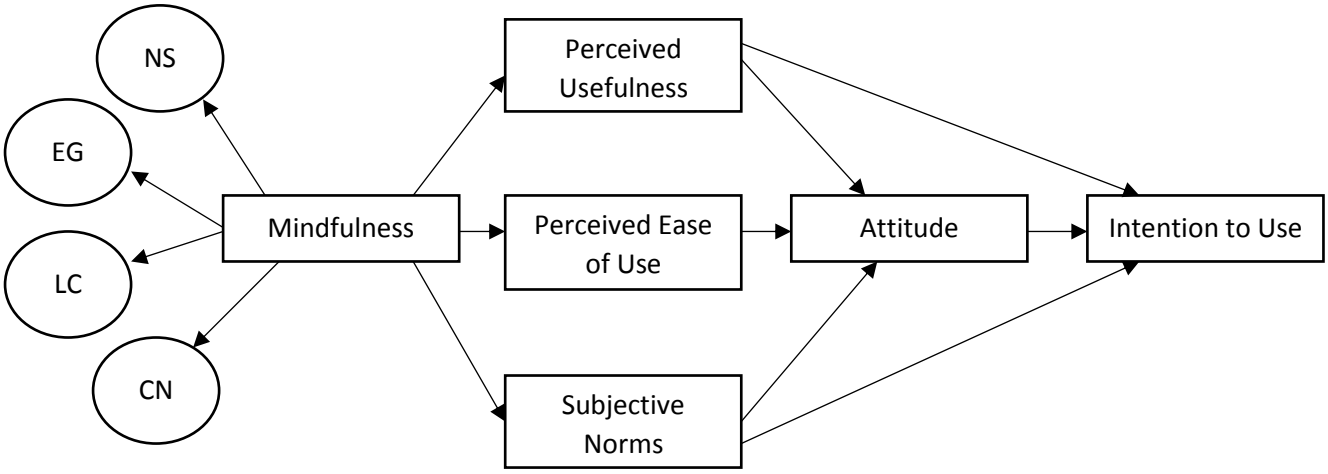

Figure 3. Research Concept Framework

The focus in this research is to examine the key determinants of mobile payment usage intention and integrate mindfulness as a new variable in this research into mobile payment adoption. In addition, this research also provides an overview of mindfulness in mobile payment adoption. The conceptual framework of this research is presented in Figure 3.

Intention to Use

Furthermore, with the increasing reliance on technology to transform teaching and learning in many societies, identifying the important drivers associated with students' intention to use technology in their lessons remains an important issue. Based on their literature review, Venkantesh et al (2014) argued that the drivers and motivators of students' intention to use technology can be explained by understanding their technology acceptance. However, although there has been

remarkable development of networking and wireless technologies, the acceptance of m-learning in higher education is still in its infancy.

RESEARCH METHODOLOGY

Pre-test

Validity and reliability are important concepts in quantitative research. Validity refers to the extent that a study actually measures its intended outcome, while reliability refers to how consistent the results of a research are when repeated in the same way. The data accuracy used in measurement is determined through the validity test. It is conducted to find out how much an indicator can represent something that is measured in a research. The validity test relates to how well a research concept is defined through measurement. The measured data must be free from systematic errors or non-random errors. Reliability test refers to the consistency of the variables measured is true and free from errors. All indicators in the measurement must be consistent and interrelated to indicate that the indicators measure the same thing. An indicator is declared reliable through a reliability measurement tool called Cronbach's Alpha. Cronbach's Alpha value ≥ 0.6 to declare an indicator reliable.

Participant, Study Design, and Procedure

The respondents in this research are naturally selected respondents who have adopted mobile payments before, and have been using them for at least the past few months. 251 Indonesian respondents provided their own assessment of their experience in adopting mobile payments. The questionnaire used in this research consisted of questions relating to respondents' personal information, such as gender, age, and a statement that they would provide their own assessment of mobile payments. In addition, there were 31 questions that measured the 6 constructs in the research model as presented in Figure 3, which consisted of awareness of adopting technologies such as mobile payments (13 items); perceived usefulness (4 items); perceived ease of use (4 items); subjective norms (3 items); attitudes (4 items); and intention to use (3 items).

The quantitative approach in this research is an approach that uses a lot of numbers, including data collection, data interpretation, and the results of the research. The quantitative approach is concerned with the existence of variables as research objects and these variables must be defined in the operationalization of each variable. This research was conducted to describe, test the relationship between variables, determine the causality of variables, test theories and looking for generalizations that have predictive value (predicting a symptom). Quantitative research uses instruments that produce numerical data.

Table 1. The Components of Research

Respondent	Total	Percentage
Gender		
1. Male	76	30.3 %
2. Female	175	69.7 %
Age		
1. < 25 years	25	10 %
2. 25-39 years	121	48.2 %
3. 40-54 years	75	29.9 %
4. > 54 years	30	12 %
Education Level		
1. High School	25	10 %
2. Diploma	6	2.4 %
3. Bachelor	161	64.1 %
4. Postgraduate	58	23 %
Operating System of Mobile Devices		
1. iOS	30	12 %
2. Android	121	88 %
Experience using Mobile Payment		
1. Ever	222	88.4 %
2. Never	29	11.6 %
Frequency of Using Mobile Payment		
1. 0-5 times	145	57.8 %
2. 5-10 times	58	23 %
3. > 10 times	48	19.1 %
Duration of Mobile Payment Usage		
1. 0-6 months	64	25.5 %
2. 6-12 months	40	15.9 %
3. > 12 months	147	58.6 %

Source: Processed Data by Researcher

Measures

The analysis technique used in this research is Partial Least Square (PLS) which is part of the Structural Equation Modeling method. Ghozali (2016) explained that the SEM (Structural Equation Modeling) model is a second generation multivariate analysis technique that allows researchers to test the relationship between complex variables, both recursive and non-recursive, to obtain a comprehensive description of the entire model (Matondang & Wahyuni, 2023).

SEM is usually used when a research consists of 2 or more endogenous variables. This research applies the Structural Equation Modeling (SEM) method because the research model contains more than one endogenous variable and includes several structural relationships. Structural Equation Modeling (SEM) is usually used as a confirmatory rather than exploratory form of determining whether a particular model is valid for use or not. SEM assists in measuring variables and testing relationships based on the theory described using a single technique.

RESULT AND DISCUSSION

Research Result

Validity and Reliability Test

Table 2. Validity Output

Code	t-Values ≥ 1,96	Validity Analysis
NS1	0,838	Valid
NS2	0,642	Valid
NS2	0,526	Valid
EG1	0,620	Valid
EG2	0,778	Valid
EG3	0,706	Valid
LC1	0,719	Valid
LC2	0,772	Valid
LC3	0,770	Valid
CN1	0,642	Valid
CN2	0,690	Valid
CN3	0,474	Valid
PUS1	0,803	Valid
PUS2	0,817	Valid
PUS3	0,776	Valid
PUS4	0,763	Valid
PEO1	0,736	Valid
PEO2	0,686	Valid
PEO3	0,766	Valid
PEO4	0,833	Valid
SN1	0,838	Valid
SN2	0,910	Valid
SN3	0,739	Valid
ATT1	0,707	Valid
ATT2	0,807	Valid
ATT3	0,847	Valid
ATT4	0,872	Valid
IU1	0,836	Valid
IU2	0,798	Valid
IU3	0,841	Valid

Source: Processed Data by Researcher

Table 3. Reliability Output

Variable	CR ≥ 0.6	Analysis
Mindfulness	0.920	Reliable
Perceived Usefulness	0.906	Reliable
Perceived Ease of Use	0.884	Reliable
Subjective Norms	0.913	Reliable
Attitude	0.915	Reliable
Intention to Use	0.912	Reliable

Source: Processed Data by Researcher

Based on the test conducted on 51 respondents, the results indicate that all indicators have a value greater than the corrected item-total correlation of 0.30, it can be concluded that all variable indicators are valid. Then the reliability test results indicate that all variables have a Cronbach Alpha value greater than 0.60. Therefore, it can be concluded that the eleven variables in this research are reliable.

Hypothesis Results

Table 4. Factor Loading

Variable	**Item**	**Cross-Load**	**R^2**	**AVE**	**Comp.Test**
Mindfulness				0.633	0.956
Technological Novelty Seeking	NS1	0.566			
	NS2	0.788			
	NS3	0.737			
Engagement with The Technology	EG1	0.764			
	EG2	0.820			
	EG3	0.816			
Awareness of Local Contexts	LC1	0.861			
	LC2	0.848			
	LC3	0.797			
Cognizance of Alternative Technology	CN1	0.788			
	CN2	0.866			
	CN3	0.825			
	CN4	0.831			
Perceived of Usefulness	PUS1	0.896	0.545	0.853	0.945
	PUS2	0.934			
	PUS3	0.949			
	PUS4	0.915			
Perceived Ease of Use	PEOU1	0.906	0.623	0.819	0.931
	PEOU2	0.856			
	PEOU3	0.932			
	PEOU4	0.925			
Attitude	ATT1	0.938	0.815	0.897	0.962
	ATT2	0.966			
	ATT3	0.956			

	ATT4	0.928			
Subjective Norms	SN1	0.959	0.472	0.915	0.953
	SN2	0.963			
	SN3	0.946			
Intention to Use	IU1	0.945	0.767	0.915	0.955
	IU2	0.960			
	IU3	0.965			

Source: Processed Data by Researcher

Table 5. Discriminant Validity (FLC)

Item	ATT	IU	MINDFUL	PEOU	PUS	SN
ATT	**0.947**					
IU	0.858	**0.957**				
MINDFUL	0.738	0.703	**0.796**			
PEOU	0.800	0.756	0.790	**0.905**		
PUS	0.845	0.811	0.739	0.812	**0.924**	
SN	0.834	0.780	0.688	0.702	0.763	**0.956**

Source: Processed Data by Researcher

Table 6. The Result of F^2 Test

Path	**F^2**
ATT → IU	0.218
MINDFUL → PEO	1.663
MINDFUL → PUS	1.205
MINDFUL → SN	0.900
PEO → ATT	0.094
PUS → ATT	0.178
PUS → IU	0.086
SN → ATT	0.354
SN → IU	0.032

Source: Processed Data by Researcher

Table 7. Path Coefficient

Causal Relationship		**STDEV**	**T-Statistic**	**P-Value**
H_{1a}	Mindfulness → Usefulness	0.037	20.234	0.000
H_{1b}	Mindfulness → Ease of Use	0.032	24.837	0.000
H_{1c}	Mindfulness → Subjective Norms	0.047	14.614	0.000
H_{2a}	Usefulness → Attitude	0.058	6.016	0.000
H_{2b}	Usefulness → Intention to Use	0.086	3.104	0.002
H_3	Ease of Use → Attitude	0.065	3.542	0.000
H_{4a}	Subjective Norms → Attitude	0.061	6.604	0.000
H_{4b}	Subjective Norms → Intention to Use	0.085	1.863	0.062
H_5	Attitude → Intention to Use	0.106	4.713	0.000

Source: Processed Data by Researcher

Research Discussion

The hypotheses were developed and tested using the Structural Equation Modeling (SEM) method and the analysis process was assisted by SmartPLS 4.0 software. The result of hypothesis testing indicated that mindfulness is proven to affect other variables as the main variable in this research. Reviewing the previous literature, there are six variables, consisting of the following (1) mindfulness as the main variable in this research; (2) perceived usefulness; (3) perceived ease of use; (4) subjective norms; (5) attitude; and (6) intention to use. First, mindfulness has a positive and significant effect on perceived usefulness in adopting mobile payments. This is proven by the value (t-count > t-table = 24.837 > 1.96 and p-value 0.000 < 0.05). Therefore, hypothesis H_{1a} which states that mindfulness has a positive effect on the perceived usefulness of mobile payments is accepted.

Second, mindfulness is proven to have a positive effect on perceived ease of use in adopting mobile payments. However, this can be measured from the value (t-count > t-table = 20.234 > 1.96 and p-value = 0.000 < 0.05). Therefore, hypothesis H_{1b} which states that mindfulness has a positive effect on perceived ease of use in using mobile payments is accepted. Ease of use indicates when customers perceive it to be easier to use certain technologies compared to other technologies after controlling time (Woo & Kim, 2019). Ease of use is determined by the stage when an individual believes that using a certain system will be easy to simplify, the perception of its ease of use (Zhou, 2017).

Third, the results of the next hypothesis test examine the effect of mindfulness on attitude and can be seen from the original sample value on the total effect of 0.719. In addition, the variable relationship value (19.677 > 1.96 and p-value = 0.000 < 0.05). Therefore, H_{1c} states that mindfulness has a positive and significant effect on attitude toward mobile payment adoption. When an individual is in their mindful situation whose way of working is characterized by a focus on the present, attention to operational details, willingness to consider alternative perspectives in exploring transactions through the technology provided by mobile payments, then they will not hesitate in making decisions to use mobile payments because of the benefits and convenience provided by mobile payments.

The results of the next hypothesis test on the effect of perceived usefulness on attitudes have a positive effect, this can be seen in the value (t-statistic < t-table = 6.016 < 1.96 and p-value = 0.000 < 0.05). The findings of this research are the same as previous research. It means that hypothesis H_{2a} which states that perceived usefulness has a positive and significant effect on user attitudes towards mobile payment is accepted. As reviewed by Lwoga et al (2017), perceived usefulness is important in affecting users' perspectives and willingness to adopt mobile payment applications when consumers operate smartphones for final payments.

The next hypothesis that tests H_{2b} of perceived usefulness also has a positive and significant effect on intention to use. This can be seen in the hypothesis test result value of 3.104 < 1.96 and a p-value of 0.002 > 0.05. Perceived usefulness is

the main determining factor that greatly affects consumer beliefs and aspirations in allowing the invention to be used. Perceived ease of use is determined by how often consumers use a certain device, the ease.

The next hypothesis test result is H_3 which is accepted, that is, perceived ease of use is proven to have a positive and significant effect on attitude. This can be seen in the value (t-count > t-table = 3.542 < 1.96 and p-value = 0.000 > 0.05). According to Wardana et al (2022) the ease is the level of individual confidence that technology is easy to use. Perceived ease can affect individual attitudes in accepting a technology, if users assess a system as easy to use, then users will have an attitude of acceptance in the technology. When the perception of ease increases, the intensity of consumer attitudes is higher which leads to an increase in purchasing decisions.

The results of H_{4a} hypothesis testing with a value (6,604 < 1.96 and p-value 0.000> 0.05) which means that subjective norms are proven to have a positive and significant effect on attitudes. The next hypothesis testing is hypothesis H_{4b}, that is, subjective norms do not have a positive and significant effect on intention to use. This information can be seen in the test results (1.863 < 1.96 and p-value = 0.062 > 0.05), which means that this figure does not fulfill the predetermined criteria to reject the hypothesis. These results are inversely proportional to the findings of Flavian et al (2020), according to whose findings subjective norms have a positive and significant effect on intention to use. On the other hand, research conducted by Gupta et al (2021), this research tries to develop a model based on technology acceptance models and theories and test it to evaluate perceived trust and subjective norms of consumers as antecedents of their adoption and intention of sustainable use for mobile wallets. Based on the research conducted, it has been analyzed that perceived trust and subjective norms determine customers' intention to begin using e-wallets or online transaction media.

Sudaryati et al (2017) explains that subjective norms are intended to describe the effect of important other people. This is commonly operationalized as the perception of the person concerned regarding the important things that other people think the person should do in connection with certain behaviors. Subjective norms are formed from the components of a person's normative and motivational beliefs, which means that individuals can be affected and can also be unaffected by other people's perceptions. However, determining the extent to an individual will be affected or not depends on the strength of the individual's personality in responding to others' intentions.

The last hypothesis H_5 states that user attitudes towards mobile payment are proven to have a positive and significant effect on the intention to adopt mobile payment. Information on the results of hypothesis testing which indicates a value (4,713 < 1.96 and p-value of 0.000 > 0.05) which means that the hypothesis is accepted. The findings of this research are also supported by research of Teo & Zhou (2014) they conducted research to examine the factors that affect the intention

of students in higher education to use technology. Generally, mindfulness should help reduce uncertainty about technology acceptance (either directly or through reducing complexity), increase the perceived usefulness of the technology, and directly increase one's intention to use it. Mindfulness is confirmed to eliminate uncertainty about technology acceptance and intention to use. The model was processed using 251 samples and the resulting data mostly supported this research model.

CONCLUSION

According to this research, it indicates that mindfulness has a positive and significant effect on perceived usefulness, perceived ease of use, and users' attitude in the intention to adopt mobile payments. Meanwhile, perceived usefulness has a positive and significant effect on users' attitude and their intention in adopting mobile payment. Then, perceived ease of use has a positive and signicant effect only on users' attitude in the intention to adopt mobile payment. Furthermore, subjective norms have a postive and significant effect on users' attitude in their intention to adopt mobile payment, but it negatively affect on users' intention in adopting it. The last is attitude which has a positive and significant effect on users' intention in adopting mobile payment in every their transactions.

This research was conducted when mobile payments are trending and becoming more prevalent in Indonesia. There is a high probability that there will be more interest in adopting them in the future. The existence of online service platforms and e-commerce sites has made several e-wallets a convenient option for Indonesian customers to transact. To understand how users will react to mobile payments, Sun et al (2016) proposed a technology acceptance mindfulness model to examine the relationship between mindfulness and intention to use technology and other antecedents. The concept of mindfulness captures on how people realize, gather, process, and even generate information related to technology acceptance. Mindful individuals will be more aware of the differences between mobile payments and other payment methods such as cash or cashless (credit cards), introduce other technological alternatives, and enjoy the novelty of mobile payments. A better understanding of mindfulness may enable system designers to design systems that support mindful use. The results of this research have implications for researchers and practitioners. For researchers, this research attempts to test various constructs from various theories to further refine our understanding of adopting mobile payments. This research confirms that more testing in different settings and further refinement of the model. Furthermore, for practitioners, marketing campaigns to introduce new services to consumers; enhancing awareness about the usefulness, security, and ease of use of mobile payments is an important first step in introducing mobile payments.

REFERENCES

Ajzen, I. (1991). The Theory of Planned Behavior. *Organizational Behavior and Human Decision Processes*, *50*(2), 179–211.

Carr Jr, V. H. (1999). *Technology adoption and diffusion*. The Laerning Center for Interactive Technology.

Chang, M. K. (1998). Predicting Unethical Behavior: A Comparison of the Theory of Reasoned Action and the Theory of Planned Behavior. *Journal of Business Ethics*, *17*, 1825–1834.

Chen, B., & Sintov, N. (2016). Bridging the gap between sustainable technology adoption and protecting natural resources: Predicting intentions to adopt energy management technologies in California. *Energy Research & Social Science*, *22*, 210–223.

Dahlberg, T., Guo, J., & Ondrus, J. (2015). A critical review of mobile payment research. *Electronic Commerce Research and Applications*, *14*(5), 265–284.

Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *Management Information Systems Research Center, University of Minnesota*, *13*(3), 319–340.

Feruglio, S., Matiz, A., Pagnoni, G., Fabbro, F., & Crescentini, C. (2021). The Impact of Mindfulness Meditation on the Wandering Mind: a Systematic Review. *Neuroscience & Biobehavioral Reviews*, *131*, 313–330.

Fishbein, M. A., & Ajzen, I. (1975). *Belief, attitude, intention and behaviour: An introduction to theory and research*. Reading.

Flavian, C., Guinaliu, M., & Lu, Y. (2020). Mobile payments adoption – introducing mindfulness to better understand consumer behavior. *The International Journal of Bank Marketing*, *38*(7), 1575–1599.

Gan, C., Cohen, D., Hu, B., Tran, M., Dong, W., & Wang, A. (2016). The relationship between credit card attributes and the demographic characteristics of card users in China. *International Journal of Bank Marketing*, *34*(7), 966–984.

Ghozali, I. (2016). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 23*. Badan Penerbit Universitas Diponegoro.

Gupta, R., Ranjan, S., & Gupta, A. (2021). Consumer's Perceived Trust and Subjective Norms as Antecedents of Mobile Wallets Adoption and Continuance Intention: A Technology Acceptance Approach. In *Recent Advances in Technology Acceptance Models and Theories*.

Hampshire, C. (2017). A Mixed Methods Empirical Exploration of UK Consumer Perceptions of Trust, Risk and Usefulness of Mobile Payments. *International Journal of Bank Marketing*, 354–369.

Indarsin, T., & Ali, H. (2017). Attitude towards Using m-Commerce: The Analysis of Perceived Usefulness, Perceived Ease of Use, and Perceived Trust: Case

Study in Ikens Wholesale Trade, Jakarta-Indonesia. *Saudi Journal of Business and Management Studies*, *2*(11), 995–1007.

Jung, J.-H., Kwon, E., & Kim, D. H. (2020). Mobile payment service usage: U.S. consumers' motivations and intentions. *Computers in Human Behavior Reports*, *1*.

Lai, P. (2017). The Literature Review of Technology Adoption Models and Theories for The Novelty Technology. *Jistem: Journal of Information Systems and Technology Management*, *14*(1), 21–38.

Lam, S. Y., & Shankar, V. (2014). Asymmetries in the Effects of Drivers of Brand Loyalty Between Early and Late Adopters and Across Technology Generations. *Journal of Interactive Marketing*, *28*(1), 26–42. https://doi.org/10.1016/j.intmar.2013.06.004

Liébana-Cabanillas, F., Marinkovic, V., Luna, I. R. de, & Kalinic, Z. (2018). Predicting the determinants of mobile payment acceptance: A hybrid SEM-neural network approach. *Technological Forecasting and Social Change*, *129*, 117–130.

Liébana-Cabanillas, F., Molinillo, S., & Ruiz-Montañez, M. (2019). To use or not to use, that is the question: Analysis of the determining factors for using NFC mobile payment systems in public transportation. *Technological Forecasting and Social Change*, *139*, 266–276.

Liébana-Cabanillas, F., Muñoz-Leiva, F., & Sánchez-Fernández, J. (2018). A global approach to the analysis of user behavior in mobile payment systems in the new electronic environment. *Serv Bus 12*, 25–64.

Lin, W. R., Lin, C.-Y., & Ding, Y.-H. (2020). Factors Affecting the Behavioral Intention to Adopt Mobile Payment: An Empirical Study in Taiwan. *Mathematics*, *8*(10), 1–19.

Lwoga, E. T., & Lwoga, N. B. (2017). User Acceptance of Mobile Payment: The Effects of User-Centric Security, System Characteristics and Gender. *Electronic Journal of Information Systems in Developing Countries*, *81*(3), 1–24.

Matondang, F. N., & Wahyuni, D. S. (2023). The Effect of Brand Image and Quality Service on Saving Decisions with Competitive Advantage as an Intervening Variable at Bank DKI Mayor Branch, East Jakarta. *UTSAHA (Journal of Entrepreneurship)*, *2*(2). https://journal.jfpublisher.com/index.php/joe/article/view/287

Miller, R. L. (2015). Rogers' Innovation Diffusion Theory (1962, 1995). *Information Seeking Behavior and Technology Adoption: Theories and Trends*, 14.

Montano, D. E., & Kasprzyk, D. (2015). Theory of Reasoned Action, Theory of Planned Behavior, and The Integrated Behavioral Model. In K. Glanz, B. K. Rimer, & K. Viswanath (Eds.), *Health Behavior and Health Education Theory, Research, and Practice* (4th Ed, p. 590). Jossey-Bass.

Oliveira, T., Thomas, M., Baptista, G., & Campos, F. (2016). Mobile payment: Understanding the determinants of customer adoption and intention to recommend the technology. *Computers in Human Behavior*, *61*, 404–414.

Oredo, J., & Njihia, M. (2014). Mindfulness and Quality of Innovation in Cloud Computing Adoption. *International Journal of Business and Management*, *10*(1).

Pantano, E., & Priporas, C.-V. (2016). The effect of mobile retailing on consumers' purchasing experiences: A dynamic perspective. *Computers in Human Behavior*, *61*, 548–555.

Papagiannidis, S. (2022). *Theoryhub Book A theory Resource for Students and Researchers Alike*. Newcastle upon Tyne.

Park, J., Ahn, J., Thavisay, T., & Ren, T. (2019). Examining the role of anxiety and social influence in multi-benefits of mobile payment service. *Journal of Retailing and Consumer Services*, *47*, 140–149.

Peter, J. P., & Olson, J. C. (2014). *Perilaku Konsumen dan Strategi Pemasaran* (9th ed.). Salemba Empat.

Raman, R., & McClelland, L. E. (2019). Bringing compassion into information systems research: A research agenda and call to action. *Journal of Information Technology*, *34*(1).

Reshma. (2017). Effect of Demonetisation in India. *International Journal of Marketing and Financial Management*, *5*(3), 6–10.

Sangadji, E. M., & Sopiah. (2013). *Perilaku konsumen : Pendekatan praktis disertai himpunan jurnal penelitian* (1st ed.). Andi.

Schepers, J., & Wetzels, M. (2007). A meta-analysis of the technology acceptance model: Investigating subjective norm and moderation effects. *Information & Management*, *44*(1), 90–103.

Schuman-Olivier, Z., Trombka, M., Lovas, D. A., Brewer, J. A., Vago, D. R., Gawande, R., Dunne, J. P., Lazar, S. W., Loucks, E. B., & Fulwiler, C. (2020). Mindfulness and Behavior Change. *Harvard Review of Psychiatry*, *28*(6), 371–394.

Shin, S., & Lee, W.-J. (2021). Factors affecting user acceptance for NFC mobile wallets in the U.S. and Korea. *Innovation and Management Review*, *18*(4), 417–433.

Sudaryati, E., Agustia, D., & Syahputra, M. I. (2017). The Influence of Perceived Usefulness, Perceived Ease of Use, Attitude, Subjective Norm, and Perceived Behavioral Control to Actual Usage Psak 45 Revision on 2011 with Intention as Intervening Variable in Unair Financial Department. *Advances in Intelligent Systems Research*, *131*, 86–92.

Sun, H., & Fang, Y. (2010). Toward a Model of Mindfulness in Technology Acceptance. *Proceedings of the International Conference on Information Systems*, 12–15.

Sun, H., Fang, Y., & Zou, H. (2016). Choosing a Fit Technology: Understanding Mindfulness in Technology Adoption and Continuance. *Journal of the Association for Information Systems*, *17*(6).

Sung, E., & Mayer, R. (2012). Students' beliefs about mobile devices Vs. desktop computers in South Korea and the United States. *Computers and Education*, *59*(4), 1328–1338.

Svenningsson, J., Höst, G., Hultén, M., & Hallström, J. (2021). Students' attitudes toward technology: exploring the relationship among affective, cognitive and behavioral components of the attitude construct. *International Journal of Technology and Design Education*, *32*, 1531–1551.

Tarkiainen, A., & Sundqvist, S. (2005). Subjective norms, attitudes and intentions of Finnish consumers in buying organic food. *British Food Journal*, *107*(11), 808–822.

Taylor, S., & Todd, P. A. (1995). Understanding Information Technology Usage: A Test of Competing Models. *Information Systems Research*, *6*(2), 144–176.

Teo, T., & Zhou, M. (2014). Explaining the intention to use technology among university students: A structural equation modeling approach. *Journal of Computing in Higher Education*, *26*(2).

Thompson, R. L., Higgins, C. A., & Howell, J. M. (1991). Personal Computing: Toward a Conceptual Model of Utilization. *Management Information Systems Research Center, University of Minnesota*, *15*(1), 125–143.

Tona, O., & Carlsson, S. A. (2014). The Mindfulness and Mindlessness in Mobile Business Intelligence Adoption. *International Conference on Information Systems Development*, 23–30.

Wardana, A. A., Saputro, E. P., Wahyuddin, M., & Abas, N. I. (2022). The Effect of Convenience, Perceived Ease of Use, and Perceived Usefulness on Intention to Use EWallet (Empirical Study on Generation Z in Surakarta). *Advances in Economics, Business and Management Research*, *218*, 386–395.

Wirtz, J., & Lovelock, C. (2022). *Service Marketing Communications: People, Technology, Strategy*. World Scientific.

Woo, E., & Kim, Y. G. (2019). Consumer attitudes and buying behavior for green food products. *British Food Journal*, *121*(2), 320–332. https://doi.org/10.1108/BFJ-01-2018-0027

Yunita, S., & Andajani, E. (2020). The Effects of Mobile Payment Dimensions toward Continuance Intention in Surabaya. *IPTEK Journal of Proceedings Series*, *1*, 308–316.

Zhou, J. (2017). Exploring the factors affecting learners' continuance intention of MOOCs for online collaborative learning: An extended ECM perspective. *Australasian Journal of Educational Technology*, *33*(5), 123–135.