Factors Influencing the Adoption of Mobile Payment Method among Generation Z: the Extended UTAUT Approach

Triasesiarta Nur*, Rosinta Ria Panggabean

Accounting Department, Faculty of Economics & Communication, Bina Nusantara University, Jakarta, Indonesia
*Corresponding Author: triasesiarta.nur@binus.ac.id

Abstract

Objective– Rapid advances in financial technology have tremendously changed both the way of life and the way of doing business over recent decades. The ubiquitous usage of the internet is fostering new forms of enterprise. Mobile payment is a new way to conveniently and effectively conduct financial transactions through digital platforms. This study analyzes the factors influencing the adoption of mobile payments as a method of payment utilized by Generation Z. Generation Z represents the successor of the generation of our society and the generation that interacts the most with internet technology.

Design/methodology– Using the Extended Unified Theory of Acceptance and Use of Technology (UTAUT) model, this study sampled 100 respondents of Generation Z from Jakarta and surrounding areas (JABODETABEK) and further analyzed using the Partial Least Square-Structural Equation Model (PLS-SEM).

Results – The results show that factors relating to Performance Expectancy, Social Influences, Facilitating Condition, Perceived Enjoyment, and Trust significantly affect the Behavioral Intention to use mobile payments to conduct online transactions. Effort Expectancy shows no significant effect.

Contribution – This study provided the evidence about the factors influencing the Generation Z's intention behavior to adopt mobile payment technology as a tool in online purchasing, using the extended UTAUT model. This stems from extended UTAUT and applies it to explore how the Behavioral Intention of Generation Z in adopting mobile payment technology.

Keywords: Mobile Payment, UTAUT, Behavioral Intention, Z Generation

1. Introduction

The advancement of information technology has influenced many aspects of our lives, predominantly within the economic sector. The inception of digital commerce and subsequent upsurge of m-commerce has gained worldwide attention, on the backbone of the progression monetary transaction completed using a mobile device through mobile payment services. The large number of people who have access to the internet and smartphones has resulted in various business opportunities, one of which is in the financial services. Through disruptive innovation, the rise of financial technology (fintech) seems inevitable in response to the challenges of the coming industrial revolution 4.0. This service changes the way people engage in financial activities, starting with shopping conveniently without leaving home. Nowadays, mobile payments are more widely used in the form of dedicated applications installed on smartphones. This service enables consumers to conduct transactions, allowing them to buy and sell goods or services from almost anywhere, merely using only their mobile.

The digital payments business is indeed increasing in Indonesia. It is growing in line with the boom in electronic commerce and Indonesian society's shift towards a

cashless society. Established companies have no choice but to respond to digital disruptions. People can adopt technologies anytime, anywhere. Businesses are challenged to find ways to get involved in the adoption of new technology to survive. Indonesia has registered record growth in the number of users of mobile payment systems for shopping needs. Global Consumer Insights survey shows 47% of Indonesia's respondents are currently using mobile payments for transactions in 2019. As many as 21,480 respondents from 26 countries took part in the survey. Indonesia is one of the countries surveyed in the Southeast Asia region, Thailand, Singapore, Philippines, Malaysia, and Vietnam (Setiaji, 2019). Currently, mobile payment providers in Indonesia are divided into three categories. First are providers from telecommunications companies: *Dompetku*, T-Cash, FlexiCash, Tunai by XL, and others. Second, there are Mandiri E-Cash, Rekening Ponsel, Mega Virtual, BBM Money, Sakuku from BCA, and others from the Banking company category. Lastly are the Fintech Startup companies which now offer Go-Pay, OVO, Dana, Doku, PayPro, PayAccess, and others (IMarketology, 2020). Based on data obtained from the Indonesian Fintech Association, the largest financial technology users are located in JABODETABEK (Jakarta and its surrounding area: Bogor, Depok, Tanggerang, Bekasi (Finctech News, 2020).

Mobile payment is a cashless payment system using technology media such as QR code, NFC, OTP, and others; completed through a mobile device. The user must keep digital money (e-wallet) on the mobile payment account for every transaction that uses mobile payment (Qi, Jin, Li, & Qian, 2020). In today's economy, digital disruption is a new normal, in which the internet has transformed almost every business field. All forms of new digital platforms are tools for disseminating information, goods, and even wealth. This process is carried out cashless via mobile devices and does not even require banking institutions' involvement (Shankar & Rishi, 2020) and (Agusta, Joshua Widjaja, 2018).

Various studies regarding the user's intention to adopt new technologies have been performed. Those models are Theory of Reasoned Action (TRA) (Ajzen & Fishbein, 1977); Technology Acceptance Model (TAM), (Davis, 1989); Theory of Planned Behavior (TPB) (Ajzen, 1985);(Ajzen, 1991); (The Unified Theory of Technology Acceptance and Use of Technology (UTAUT) (Venkatesh, Morris, Davis, & Davis, 2003). Based on previous models' development, several factors are considered to influence people's intention to adopt certain technologies. Those factors are Performance Expectancy, Effort Expectancy, Facilitating Conditions, and Social Influences. Some research later extended the UTAUT model by adding some more variables such as Trust and Perceived Enjoyment (Al-Saedi, Al-Emran, Ramayah, & Abusham, 2020); (Sobti, 2019).

Performance Expectancy relates to people's believe that adopting certain technologies will improve their job performance (Patil, Tamilmani, Rana, & Raghavan, 2020). Furthermore, the intention to adopt certain technologies is greater when these technologies is easily implemented and used. Effort Expectancy relates to people's sense on using a particular technology as effortless (Ali & Qaisar, 2018). The adoption of a particular technology also requires various supporting facilities. Such Facilitating Conditions are needed for technology adoption to be adequately supported (Sobti, 2019). Social influences relates to how the encouragement of social networks that can influence a person's intention to behave in a certain way (Nassar, Othman, & Nizah, 2019). The process of using a particular technology can also be perceived as an enjoyable activity (Chao, 2019). In the same technological context, the activity of online shopping can generate similar enjoyment. Another important factor that determining people willing to do adopt digital payment is the component of trust, particularly in the e-business environment (Chao, 2019).

Studies on people's intention in adopting a mobile payment service have been carried out in several countries such as Qatar (Musa, Khan, & AlShare, 2015), Gulf countries (Alkhowaiter, 2020); Malaysia (Ting, Yacob, Liew, & Lau, 2016), India (Patil et al., 2020), U.S. (Jung, Kwon, & Kim, 2020), and also in Indonesia (Sudono, Adiwijaya, & Siagian, 2020). Also, a small proportion of these studies began to include demographic

Mobile Payment, UTAUT, Behavioral Intention, Z Generation

cohort as well as specific age factors in their research, emphasizing the younger generation that was ready to accept new technology, mobile payment (Karim, Haque, Ulfy, & Anis, 2020); Some studies focus on Millennials, analyzing the factors influencing the Behavioral Intention of using a particular technology as their research object (Lubis, Amelia, Ramadhani, Pane, & Aryza, 2019, Mahardhika & Zakiyah, 2020). Millennials are often considered the most digitally savvy generation, even though they were raised during the period when the internet was still an emerging technology. In contrast, Generation Z, or those that were born after 1995 (Priporas, Stylos, & Fotiadis, 2017), grew up with smartphones *as* toys - and for this reason, they are nicknamed as iGeneration (Dolot, 2018). Subsequently, when it comes to payments, this cohort demands newer and more technologically advanced options. The contribution of this study is to examine the factors influencing the Generation Z's intention behaviour to adopt mobile payment technology as a tool in online purchasing, using the extended UTAUT model. This stems from extended UTAUT and applies it to explore how the Behavioral Intention of Generation Z in adopting mobile payment technology.

Based on this background, this study aims to examine the influence of performance expectancy, effort expectancy, facilitating conditions, social influences, and trust on behavioral intention of Gen Z in adopting mobile payment technology. The next sections of this paper follow this order: the second part is a theoretical framework that provides a brief explanation of the development of behavioral intention model; the relationship between behavioral intention and its influencing factors and the hypotheses; the third part is a research method that explains the methods used in this research; the fourth part is the research result that explains the findings of this research; and finally the fifth part is the conclusions of the study.

2. Literature Review
Development of a Behavioral Intention Model

Behavioral Intention (BI) is a measure of the possibility that someone will buy or use a particular product/service/technology (Davis, 1989). Various studies have been carried out to identify the most important factors influencing the behavior of using new technologies. The development of this model starts from Theory of Reasoned Action (TRA), The Planned Behavior Theory (TPB), The Technology Acceptance Model (TAM) to The Unified Theory of Acceptance and Use of Technology (UTAUT).

Theory of Reasoned Action (TRA) was developed in 1967 to analyze the relationship between attitudes, subjective norms, and Behavioral Intentions (Ajzen & Fishbein, 1969). The intention to behave is influenced by a pre-existing person's attitude, whether their expected outcome is useful or not for performing the behavior. Social Influences is also supposed to influence a person to decide whether to do the behavior. While attitudes depend on beliefs and assessments, subjective norms are influenced by normative beliefs and motivation to imitate. In this context, attitude is defined as the extent to which a person has an assessment of behavior that they like or dislike; whilst the subjective norm of a person's belief is whether other people believe they should be involved in certain behaviors (Ajzen & Fishbein, 1969). Intention to behave is described as the extent to which a person is willing to attempt certain behaviors (Ajzen & Fishbein, 1977); (Davis, 1989). The Planned Behavior theory (TPB) is a development of TRA by adding the Perceived Behavior Control (PBC) construct. PBC is an individual's perception of the ease or difficulty of performing a particular behavior (Ajzen, 1985); (Sommer, 2011). PBC is also an individual's perception of how they control performing certain behaviors (Davis, 1989).

The Technology Acceptance Model (TAM) explains the relationship between user attitudes and the perceptions of interest in technology adoption and actual adoption

(Davis, 1989). TAM is based on TRA to explain and predict user interest in various information systems. TAM's primary constructs are Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). Someone will tend to use information systems technology if they think it will improve their job performance. PU is the extent to which a person believes that using a particular system will enhance their job performance (Davis, 1989).

Furthermore, PEOU is the extent to which a person believes a system is easy to use with no difficulty. TAM is one of many strong conceptual models for analyzing the adoption of new information system technology. TAM has the power to explain people's intention to use certain technologies better than TRA or TPB (Leong, Hew, Tan, & Ooi, 2013). TAM is one of the many models used and cited in research on Information systems or technology adoption. Subsequently, (Venkatesh et al., 2003) formulated the integration of theoritical framework under TRA, TPB, TAM , motivation models and social cognitive theories into the UTAUT model (Unified Theory of Acceptance and Use of Technology). The UTAUT aims to explain user intentions to adopt new technology and subsequent usage behavior, determined by four constructs: Performance Expectancy, Effort Expectancy, Facilitating Condition and Social Influences. Subsequent studies expands UTAUT with several additional variables such as Perceived Enjoyment and Trust (Chao, 2019);(Apidana, Suroso, & Setyanto, 2019);(Oliveira, Thomas, Baptista, & Campos, 2016)

The Impact of Performance Expectancy on Behavioral Intention

Performance Expectancy is people's belief that using the system improves job performance to perform various tasks (Venkatesh et al., 2003). This statement corresponds to the TAM model. People will adopt mobile payment systems when they realize the system to be beneficial for their transaction requirements or financial matters. Performance Expectancy is essential in describing the intention to use mobile payment technology. Many studies have shown that Performance Expectancy significantly influences the Behavioral Intention to use certain technologies, namely: academic information systems (Handayani & Sudiana, 2017); mobile commerce technologies (Ali & Qaisar, 2018); mobile learning (Chao, 2019) and mobile payment service (Jung et al., 2020). Based on the explanation above, the following hypothesis is proposed:
H1: Performance Expectancy has a significant positive effect on Behavioral Intention

The Impact of Effort Expectancy on Behavioral Intention

Effort Expectancy is people's perception that a system will be easy to use, error-free, and problem-free (Venkatesh et al., 2003). People believe that using an information technology system would be free of effort. This statement is consistent with TAM, where perceived ease of use is an important determinant of adopting new technologies by individuals (Davis, 1989). Various studies have shown that the Effort Expectancy significantly influences an individual's intention to adopt a specific technology (Oliveira et al., 2016); (Peša & Brajković, 2016); (Slade, Dwivedi, Piercy, & Williams, 2015). Based on the explanation above:
H2: Effort Expectancy has a significant positive effect on Behavioral Intention

The Impact of Social Influences on Behavioral Intention

Social Influences refers to whether important people (e.g. friends, colleagues, family members) influence a person's intention to use a particular technology (Venkatesh et al., 2003). Social Influences is not considered in the TAM model. Social Influences is similar to the subjective norm on Theory of Reasoned Action (TRA). UTAUT model recognizes the importance of including a social component in the model, such as the opinion of friends and relatives. This model states that Social Influences becomes stronger at an early stage when individuals use certain technologies. Individuals turn out to be more sensitive to the views of others.

Mobile Payment, UTAUT, Behavioral Intention, Z Generation

Social Influences is persuading people to use mobile payment systems if other people believe the importance of the technology as beneficial to their decision to adopt and use mobile payment (Nassar et al., 2019). Regarding social expectations, Social Influences is related to one's perception that prominent references consider and expect s/he should or should not implement a particular behavior.

Many studies have shown that Social Influences significantly impacts Behavioral Intention to use new technologies in learning management systems (Alshehri, Rutter, & Smith, 2019); mobile learning (Slade et al., 2015); and mobile payment (Oliveira et al., 2016);(Al-Okaily, Lutfi, Alsaad, Taamneh, & Alsyouf, 2020). Hence, this can lead to the following hypothesis:

H3: Social Intention has a significant positive effect on Behavioral Intention

The Impact of Facilitating Conditions on Behavioral Intention

Facilitating Conditions are people's perceptions of all available resources and support for certain behaviors (Venkatesh et al., 2003). Individual believes that technological infrastructure exists to support adopting of the system. Having a supporting infrastructure in place will increase the people's intention to adopt new technologies (Oliveira et al., 2016). Several studies show Facilitating Conditions significantly impact the Behavioral Intention of using a certain technology (Mensah, Chuanyong, & Zeng, 2020), (Patil et al., 2020) and (Gupta, Manrai, & Goel, 2019).

Therefore, the following hypothesis is formulated:

H4: Facilitating Condition has a significant positive effect on Behavioral Intention

Some researchers modify the UTAUT model by including relevant constructs explaining Behavioral Intention in using a specific technology. Several of them include Trust and Perceived Enjoyment.

The Impact of Trust on Behavioral Intention

Trust is a belief that buyers have in their online retailers after carefully examining their characteristics. Trust is the main belief that combines honesty, dependability, benevolence, and dependability (Pavlou, 2003). Trust is described as the extent to which people believe mobile payment technology usage is trustworthy. As a new technology, mobile payments are still dominated by user's uncertainty regarding their level of trust, security, and confidentiality (Septiani, Handayani, & Azzahro, 2017). The absence of trust in m-commerce is typically due to online transactions being carried out by sellers and buyers in the lack of face-to-face interaction. Thus, buyers are concerned that the seller may defraud them or misuse their personal information (Septiani et al., 2017). Hence, lack of trust may cause buyers to doubt and being unwilling to purchase products or services from online sources. Previous studies proved that trust positively affects Behavioral Intention to use a particular technology; (Patil et al., 2020); and (Al-Saedi et al., 2020).

Based on the above description, the proposed hypothesis is:

H5: Trust has a significant positive effect on Behavioral Intention

The Impact of Perceived Enjoyment on Behavioral Intention

Perceived Enjoyment has an association with the intention to adopt new technology. Individuals who like or enjoy using the new technology tend to have greater intentions than others (Balog & Pribeanu, 2010). Enjoyment is an inherent reward resulting from the use of technology that has been learned. Enjoyment is used to describe the hedonism dimension towards user consumption and evaluate the extent of how far users find the adoption of technology as fun, convenient, and entertaining (Septiani et al., 2017). Individuals who feel amusement or enjoyment from adopting a system are more likely to intend to use it than others. If Genereation Z thinks mobile payment technology is fun to use, they are more inclined to use the technology.

Several studies have shown the impact of Perceived Enjoyment on Behavioral Intention based on specific cases of technology adoption such as a single platform e-payment system (L. P. Chin & Ahmad, 2015); on mobile payments (Sudono et al., 2020); multimedia-on-demand (MOD) services (Liao, Tsou, & Shu, 2008); and on online transportation services (Septiani et al., 2017). Based on the explanation above, we propose the following hypothesis:

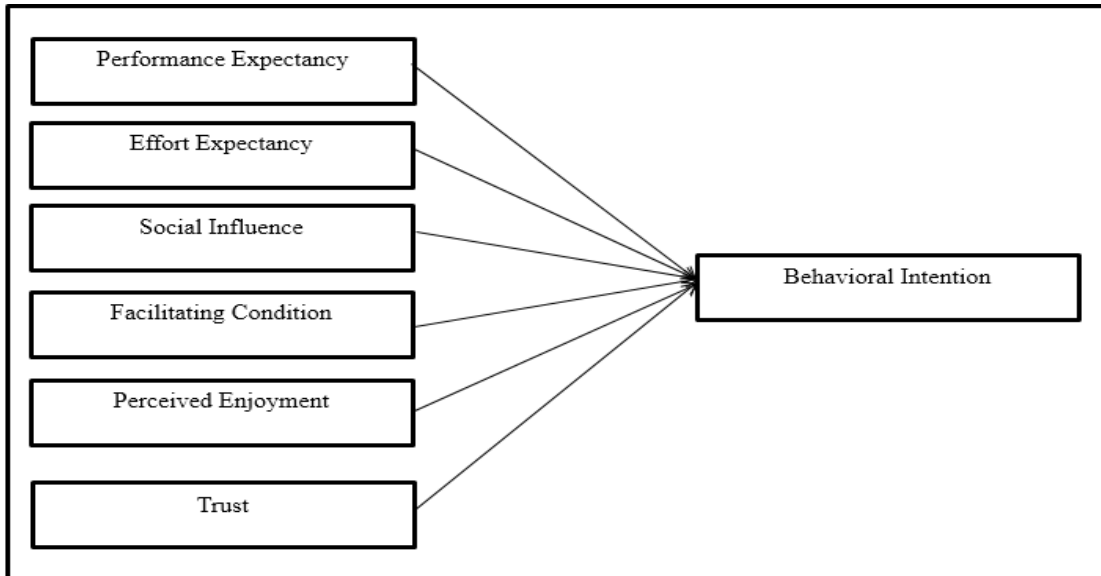H6: Perceived Enjoyment has a significant positive effect on Behavioral Intention

Mobile Payment, UTAUT, Behavioral Intention, Z Generation

Figure 1. Conceptual Framework

3. Research Method

This study uses the structural equation model (SEM) to test the model and further analyze the latent variables' influence: Performance Expectancy, Effort Expectancy, Social Influences, Facilitating Conditions, Perceived Enjoyment, and Trust in the Behavioral Intention to use mobile payment services in online transactions. A quantitative study was performed to analyze the impact of variables identified in the prior section on behavior intention for the use of mobile payment. Questionnaires were distributed using Google forms among Geneneration Z mobile payment users in the JABODETABEK area using purposive sampling as a data collection method.

Figure 1 is a theoretical model for this research. Table 1 shows the construct definition. The method used to estimate the SEM is Partial Least Square (PLS) (Abrahão, Moriguchi, & Andrade, 2016). The internal consistency of the construct verifies the evaluation of the measurement model through composite reliability with a value of more than 0.7. So, the questionnaire instrument has good indicator reliability. Then the minimum average variance extraction value (AVE) is 0.5 as a prerequisite for convergent validity (W. W. Chin, 1998)

Taking into account that the population of Generation Z's mobile payment users in the JABODETABEK is unknown, the following formula is used as a basis for determining the sample (Djarwanto & Subagyo, 2005):

$$n = \frac{z^{1/2}\sigma}{E}$$

n = number of samples
z = area of standard normal curve
σ = Standard deviation
E = Error

The amount of $z^{1/2}$ based on the normal distribution table is 1.96, the standard deviation is 0.5, the amount of error is 0.01, so the calculation result is:

$$n = \frac{1.96x0.5}{0.01}$$

n = 98 ≈ 100 samples.

This study uses purposive sampling method. As non-probability (non-random) technique, each element in the population does not have the same opportunity to be selected as a sample. Alternately, the respondents' determination to be sampled is selected based on specific criteria (Djarwanto & Subagyo, 2005). In this case, respondents must qualify as: (1) Use mobile payment (2) Resides in the JABODETABEK area (3) Age 15-25 years. The questionnaire in this study consisted of 2 parts. The first part contains questions about demographics, while the second part covers questions about the research model. A Likert scale question was used with a range from 1 to 5 (1 = "Absolutely Disagrees" to 5 = "Strongly Agree"). The list of questions is shown in table 2.

4. Result and Discussion

A total of 100 respondents from Jakarta and its surrounding areas (JABODETABEK) were gathered, with a composition of 61% female and 39% male. The respondents were born after 1995. A total of 19 respondents have used the mobile payment service for less than a year. Fifty respondents have used mobile payments for 1-2 years; 22 have used it for 3-4 years, and only nine respondents have been using the mobile payment service for more than four years. The full profiles of the respondents are listed in Table 3. The study used SEM-PLS to test the proposed hypothesis. The result of Factor Loadings, Composite Reliability, and Average Variance Extracted can be seen in Table 4.

This study aims to identify the factors influencing Generation Z's interest in adopting mobile payment services. The hypothesis test result can be seen in Table 5. The results show that the Performance Expectancy with β = 0.15, p = 0.040 had a significant influence on the Behavioral Intention; the expected effort has a significant influence on the Behavioral Intention, with β = 0.216, p = 0.012. The same applies to Social Influences, Facilitating Conditions, Perceived Enjoyment, and trust with β = 0.144, 0.207, 0.123, and 0.291, respectively. While p is 0.012, 0.039, 0.029 and 0.012, respectively. Thus, the data support all hypotheses, with a coefficient determination (R2) of 72.04%.

Table 1. Constructs Definition

Performance Expectancy	:	PE measures the extent to which Gen Z believes that a technology (mobile payment) is useful to support their online transaction activities. Adapted from (Venkatesh et al., 2003)
Effort Expectancy	:	EE measures the extent to which the level of ease of use of mobile payment technology. Adapted from (Venkatesh et al., 2003)
Social Influences	:	SI measures the extent to which the influence/opinion of others influences the desire to adopt mobile payment technology—adapted from (Venkatesh et al., 2003).
Facilitating Condition	:	How far the Gen Z 's perception is of all the resources; they have to support the desire to use Mobile Payment technology. Adapted from (Venkatesh et al., 2003)
Perceived Enjoyment	:	The extent to which Gen Z experiences the pleasure and enjoyment of using mobile payment technology in online transactions—adapted from (Davis 1989).
Trust	:	Trust measures the extent of Gen Z's perception that mobile payment technology can rely on online transactions. Adapted from (Pavlou, 2003)
Behavioral Intention	:	The desire to adopt mobile payment technology in online transactions. Adapted from (Davis, 1989)

Source: Adapted from various sources

Construct		Items	Sources
Perfor-mance Ex-pectancy	PE1	The mobile payment service is useful for support-ing my online transactions	Adapted from: (Venkatesh, Thong, & Xu, 2012);(Oliveira et al., 2016)
	PE2	The mobile payment service allows me to complete online transactions faster.	
	PE3	Using a mobile payment service will increase my productivity in online transactions	
	PE4	Using a mobile payment service makes it easier for me to do online transactions.	
Effort Expectancy	EE1.	Using a mobile payment service makes it easier for me to do online transactions	Adapted from: (Venkatesh et al., 2012);(Oliveira et al., 2016)
	EE2.	I think the mobile payment service is easy to use	
	EE3	Learning how to operate transactions through the mobile payment service was easy for me.	
Social Influences	SI1	The people who matter to me think I have to use the mobile payment service to transact online	Adapted from: (Venkatesh et al., 2012)(Dalimunte, Miraja, Persada, & Prasetyo, 2019)
	SI2	People who influence my life believe that I have to use the mobile payment service to transact online	
	SI3	People whose opinions are important to me think that I should use the mobile payment service to transact online.	
	SI4	People around me who use mobile payment ser-vices seem to have more prestige than those who do not.	
Facilitating Condition	FC1	I have the resources needed to operate the mobile payment service	Adapted from: (Oliveira et al., 2016)
	FC2	I have sufficient knowledge to use the mobile pay-ment service	
	FC3	I use mobile payment service with other technol-ogy.	
	FC4	I will easily get help from other people when I find it difficult to use the mobile payment service.	
Perceived Enjoyment	PJ1	For me, using the mobile payment service for online transactions is very fun.	Adapted from: (Sudono et al., 2020)
	PJ2	For me, using the mobile payment service for online transactions is very entertaining.	
	PJ3	I enjoy using the mobile payment service for online transactions	
Trust	T1	I believe the mobile payment service technology as a tool for online transactions will not lose control over the privacy of information from payments	Adapted from: (Jamaludin & Ahmad, 2013)
	T2	I feel safe transacting online using the mobile pay-ment service	
	T3	I am sure that online transactions using mobile payment services are reliable	
Behavioral Intention	BI1	I will continue to use the mobile payment service	Adapted from: (Venkatesh et al., 2012); (Dalimunte et al., 2019)
	BI2	I will often use the mobile payment service when transacting online	
	BI3	I will use the mobile payment service in my daily life	
	B14	I will recommend my friends to use the mobile pay-ment service	

Source: Authors

Mobile Payment, UTAUT, Behavioral Intention, Z Generation

Table 2. List of Questions

Consistent with (Handayani & Sudiana, 2017); (Ali & Qaisar, 2018); (Chao, 2019) and (Jung et al., 2020), Performance Expectancy has a significant positive effect on Behavioral Intention of using mobile payment service. The more people believe that a particular technology is easy to use, the greater the interest in using it. Generation Z is the type of consumer interested in new technologies and places high demands on ease of use (Priporas et al., 2017). Generation Z is a very technology-attached generation and sees technology as a tool for them (Verhoef, Kannan, & Inman, 2015). So that they are increasingly interested in using mobile payment services, especially when they are certain that the service is useful for facilitating their online transactions.

Effort Expectancy has a significant influence on Behavioral Intention. The stronger the perception that a particular technology is easy to learn and master, the stronger the person's interest in adopting the technology will be. This statement is in line with (Oliveira et al., 2016); (Peša & Brajković, 2016); and (Slade et al., 2015) Generation Z, known as the "Always-Clicking Generation," is a generation closely connected to the internet. This generation was born in the 1990s and grew up in the 2000s when the most significant change over the century came with the advent of the web, internet, smartphones, laptops, networks, and digital media (A. P. Singh & Dangmei, 2016). The result is that Generation Z can easily find and review the information they need. This generation also uses a wide variety of mobile devices and is an inquisitive group in exploiting new technologies (Dolot, 2018). It is quite easy for Generation Z to become familiar with and operate mobile payment services.

Table 3. Respondent Profile (N=100)

Demographic variable		Frequency	Percent
Gender	Female	61	61
	Male	39	39
Age	15-17	25	25
	18-22	60	60
	23-25	15	15
Type of work	student	63	63
	employee	23	23
	entrepreneur	11	11
	other	3	3
Income/allowance	Below Rp.1000.000	37	37
	Rp.1000.001-2.000.000	30	30
	Rp.1000.001-5.000.000	22	22
	Above Rp.5000.000	11	11
	Less than a year	19	19
Usage of Mobile payment	1-2 year	50	50
	3-4 year	22	22
	More than four years	4	4

Source: Authors

Social Influences has a significantly positive effect on Behavioral Intention. The greater the influence of the closest people have on the usage of mobile payment services, the greater the intention of Generation Z to adopt this technology. The result is consistent with (Alshehri et al., 2019) and (Jung et al., 2020). Generation Z is the generation that communicates the most on social media. Generation Z can easily be persuaded and easily purchased through online shops, especially with the ease of mobile payments. Online shopping has finally become a lifestyle, and Generation Z is one of the generations involved in the rise of Indonesia's internet usage. Generation Z is in a phase of self-discovery. Their peer group and reference group can easily susceptibly postpone their buying. Because the reference group has a powerful influence that makes an individual have certain criteria when applying certain technologies. In particular, people who act as peer groups are a reference and benchmark for determining intention in using mobile payments in online transactions. (Ramadhan & Simanjuntak, 2018);(Yang,

He, & Lee, 2007). The more influence an environment has on potential users of information technology to use new information technology, the greater the interest in using information technology due to the strong influence of the environment (Apidana et al., 2019).

Mobile Payment, UTAUT, Behavioral Intention, Z Generation

Table 4.
Measurement Model Result

Construct	Items	Loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Behavioral Intention	BI1	0.784	0.832	0.882	0.652
	BI2	0.725			
	BI3	0.872			
	BI4	0.843			
Performance Expectancy	PE1	0.791	0.833	0.889	0.667
	PE2	0.850			
	PE3	0.860			
	PE4	0.763			
Effort Expectancy	EE1	0.856	0.769	0.770	0.685
	EE2	0.786			
	EE3	0.893			
Social Influences	SI1	0.865	0.851	0.900	0.693
	SI2	0.884			
	SI3	0.808			
	SI4	0.768			
Facilitating Condition	FC1	0.804	0.858	0.904	0.701
	FC2	0.858			
	FC3	0.863			
	FC4	0.823			
Perceived Enjoyment	PJ1	0.761	0.833	0.889	0.667
	PJ2	0.805			
	PJ3	0.805			
	PJ4	0.729			
Trust	T1	0.700	0.883	0.8615	0.650
	T2	0.872			
	T3	0.861			
	T4	0.730			

The results of this study show that Perceived Enjoyment has a significant positive effect on Behavioral Intention. This study is in line with research (Sudono et al., 2020);(Natarajan, Balasubramanian, & Kasilingam, 2017); and (Liao et al., 2008). The more a person feels that online transactions are fun, the more they will want to adopt the service. The many types of products and brands of online stores provide a pleasant experience that stimulate the passion and excitement for shopping. There are underlying psychological factors defining such activity to be something enjoyable (L. P. Chin & Ahmad, 2015). In this case, for Generation Z also include browsing or window shopping. Online platform services simplify the process, especially in terms of shopping speed, flexibility, product variety, and product information The more enjoyable the online shopping experience is formed, the stronger the intention to adopt mobile payment as a new technology (Priporas et al., 2017). As such, the convenience of online transactions

Table 5. Hypotheses
Testing Results

is reinforced by mobile payment services in an overall pleasant experience for consumers (Amanah & Harahap, 2020).

Hypothesis	Relationship	Original Sample	Std. Error	p. value	Decision
H1	PE →BI	0.142	0.091	0.047	Supported
H2	EE →BI	0.213	0.101	0.035	Supported
H3	SI → BI	0.135	0.058	0.021	Supported
H4	FC →BI	0.187	0.105	0.045	Supported
H5	PJ → BI	0.101	0.061	0.043	Supported
H6	T → BI	0.234	0.095	0.014	Supported

Trust has a significant positive effect on Behavioral Intention. The more the consumers believe that a particular technology is reliable, the greater their interest in using it. This is in line with research (Gong, Zhang, Chen, Cheung, & Lee, 2019; Patil et al., 2020; N. Singh & Sinha, 2020; Widyanto, Kusumawardani, & Septyawanda, 2020). Trust is a consumer's confidence in the information technology and the transaction operational mechanism performance in the mobile payment context. Information technology transaction operators need to go to great effort to build consumer confidence. Trust has a significant impact on consumer intention and behavior in transactions, regardless of whether mobile payments are used. The more Gen Z believes that online transactions are safe and reliable, the more likely they are to use the service.

Facilitating Conditions have a positive effect on Behavioral Intention. This result is in line with (Alshehri et al., 2019); (Mohd Ariffin, Ahmad, & Mohd Haneef, 2020), and (Patil et al., 2020) research. The more the consumers perceive the existence of resources and the support for adopting a particular technology, the more likely they will use that technology. When the operational infrastructure is in place, the knowledge required to use mobile payments is available, and mobile payment usage is supported. The Behavioral Intention to adopt mobile payments will increase.

5. Conclusions

This study shows that Performance Expectancy, Social Influences, Facilitating Conditions, Perceived Enjoyment, and Trust significantly affect Generation Z's Behavioral Intention to adopt mobile payment services. Therefore, marketers should benefit more from mobile payment services when managing the target market for Z-Generation. Mobile payment services are much more practical and valuable than transactions previously performed using conventional payment methods

People can use mobile payments more freely for online shopping transactions with or without a bank account. Marketing that focuses on emphasizing the combination of practicality and reliability in using mobile payments, faster shopping, and secure transactions can be easily done anywhere, anytime. All of those offer services can further increase mobile payment adoption. Also, the support of the available resources and facilities is required. Supported resources for mobile devices in the form of fast internet connections on 3G and 4G networks and options for payment methods in mobile payments by merchants will encourage consumers to use the mobile payment services. Service providers need to improve and develop the support facilities of mobile payment services.

The presence of a significant influence of Social Influences on Behavioral Intention shows that the closest people, such as family and friends, have an important role. This condition should be considered so that mobile payment services providers can also use social media as an advertising tool, as Generation Z interacts a lot with their immediate

surroundings through social media. Marketers also need to innovate in terms of things that make a mobile payment transaction enjoyable, such as: provide various rewards, for instance, cashback, points, discounts, etc. On the merchant side, it is essential to add payment alternatives to mobile payments that make transactions easier. Moreover, marketers have to continually enhance the product's quality appearance to make window shopping easy and fun.

This study does not contain any constructs of gender, experience, and habit from the UTAUT model that could have a moderating effect on latent constructs on Behavioral Intention. This study only considers the consumer context, in this case, Generation Z. The intention to use mobile payment services also depends on the availability of merchants' payment method options. Further investigations should therefore also consider the point of view of the merchants.

References

Abrahão, R., Moriguchi, S., & Andrade, D. (2016). Intention of adoption of mobile payment: An analysis in the light of the Unified Theory of Acceptance and Use of Technology (UTAUT). *RAI Revista de Administração e Inovação, 13*(3), 221–230. https://doi.org/10.1016/j.rai.2016.06.003

Agusta, Joshua Widjaja, N. (2018). *Mobile payments in Indonesia: Race to big data domination. MDI ventures.*

Ajzen, I. (1985). From intentions to actions: a theory of planned behavior. In *action control* (pp. 11–39). SSSP springer series in social psychology book series (SSSOC).

Ajzen, I. (1991). The theory of planned behavior organizational behavior and human decision processes. *Organizational Behavior and Human Decision Processes, 50*(2), 179–211.

Ajzen, I., & Fishbein, M. (1969). The prediction of behavioral intentions in a choice situation. *Journal of Experimental Social Psychology, 5*(4), 400–416.

Ajzen, I., & Fishbein, M. (1977). Belief, attitude, intention, and behavior: an introduction to theory and research. *Philosophy and Rhetoric 10 (2):130-132 (1977).*

Al-Okaily, M., Lutfi, A., Alsaad, A., Taamneh, A., & Alsyouf, A. (2020). The determinants of digital payment systems' acceptance under cultural orientation differences: The case of uncertainty avoidance. *Technology in Society, 63*(August). https://doi.org/10.1016/j.techsoc.2020.101367

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*(January), 101293. https://doi.org/10.1016/j.techsoc.2020.101293

Ali, S., & Qaisar, R. (2018). Effect of performance expectancy and effort expectancy on the mobile commerce adoption intention through personal innovativeness among Pakistani consumers Pakistan Journal of Commerce and Social Sciences (PJCSS) Provided in Cooperation with: Johar Educati. *Pakistan Journal of Commerce and Social Sciences, 12*(2), 501–520.

Alkhowaiter, W. A. (2020). Digital payment and banking adoption research in Gulf countries: A systematic literature review. *International Journal of Information Management, 53*(February), 102102. https://doi.org/10.1016/j.ijinfomgt.2020.102102

Alshehri, A., Rutter, M. J., & Smith, S. (2019). An implementation of the UTAUT model for understanding students' perceptions of learning management systems: A study within tertiary institutions in Saudi Arabia. *International Journal of Distance Education Technologies, 17*(3), 1–24. https://doi.org/10.4018/IJDET.2019070101

Amanah, D., & Harahap, D. A. (2020). Visual appeal model for consumer online impulsive purchases in, *9*(06), 388–397.

Apidana, Y. H., Suroso, A., & Setyanto, R. P. (2019). Model penerimaan teknologi

mobile payment pada digital native dan digital immigrant di Indonesia, *21*(13).

Balog, A., & Pribeanu, C. (2010). The Role of Perceived Enjoyment in the Students' Acceptance of an Augmented Reality Teaching Platform: a Structural Equation Modelling Approach. *Studies in Informatics and Control*, *19*(3), 320–330.

Chao, C. M. (2019). Factors determining the behavioral intention to use mobile learning: An application and extension of the UTAUT model. *Frontiers in Psychology*, *10*(JULY), 1–14. https://doi.org/10.3389/fpsyg.2019.01652

Chin, L. P., & Ahmad, Z. A. (2015). Perceived enjoyment and malaysian consumers' intention to use a single platform e-payment. *SHS Web of Conferences*, *18*, 01009. https://doi.org/10.1051/shsconf/20151801009

Chin, W. W. (1998). The partial least squares approach to structural equation modelling. In Marcoulides G. A. (Ed.). *Modern Methods for Business Research*, *295*(2), 295–336.

Dalimunte, I., Miraja, B. A., Persada, S. F., & Prasetyo, Y. T. (2019). Comparing generation Z ' s behavior intention in using digital wallet for online and in-store transaction : A unified theory of acceptance and use of technology 2 approach volume XIV. *Journal of Applied Economic Sciences*, (October), 660–672. https://doi.org/10.14505/jaes.v14.3(65).04

Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly: Management Information Systems*, *13*(3), 319–340. https://doi.org/10.2307/249008

Djarwanto, P., & Subagyo, P. (2005). *Statistik induktif*. Yogyakarta : BPFE.

Dolot, A. (2018). New trends in management the characteristics of generation Z. *E-Mentor*, *2*(2), 44–50. https://doi.org/http://dx.doi. org/10.15219/em74.1351

Finctech News, S. (2020). *Indonesia fintech report 2020*.

Gong, X., Zhang, K. Z. K., Chen, C., Cheung, C. M. K., & Lee, M. K. O. (2019). What drives trust transfer from web to mobile payment services? The dual effects of perceived entitativity. *Information and Management*, (December), 103250. https://doi.org/10.1016/j.im.2019.103250

Gupta, K. P., Manrai, R., & Goel, U. (2019). Factors influencing adoption of payments banks by Indian customers: extending UTAUT with perceived credibility. *Journal of Asia Business Studies*, *13*(2), 173–195. https://doi.org/10.1108/JABS-07-2017-0111

Handayani, T., & Sudiana, S. (2017). Analisis penerapan model utaut (unified theory of acceptance and use of technology) terhadap perilaku pengguna sistem informasi (studi kasus: sistem informasi akademik pada Sttnas Yogyakarta). *Angkasa: Jurnal Ilmiah Bidang Teknologi*, *7*(2), 165. https://doi.org/10.28989/angkasa.v7i2.159

IMarketology. (2020). 4 layanan mobile payment terkemuka di Indonesia.

Jamaludin, A., & Ahmad, F. (2013). Investigating the relationship between trust and intention to purchase online. *Business and Management Horizons*, *1*(1), 1. https://doi.org/10.5296/bmh.v1i1.3253

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*(February), 100–108. https://doi.org/10.1016/j.chbr.2020.100008

Karim, W., Haque, A., Ulfy, M. A., & Anis, Z. (2020). Factors influencing the use of e-wallet as a payment method among Malaysian young adults islamic advertising development view project customer satisfaction mobile phone services: An empirical study on grameen phone (GP) and banglalink (BL) in Bangladesh V. *Article in International Journal of Business and Management*, *3*(2), 1–11. https://doi.org/10.37227/jibm-2020-2-21

Leong, L. Y., Hew, T. S., Tan, G. W. H., & Ooi, K. B. (2013). Predicting the determinants of the NFC-enabled mobile credit card acceptance: A neural networks approach. *Expert Systems with Applications*, *40*(14), 5604–5620.

https://doi.org/10.1016/j.eswa.2013.04.018

Liao, C.-H., Tsou, C.-W., & Shu, Y. (2008). The roles of perceived enjoyment and price perception in determining acceptance of multimedia-on-demand. *International Journal of Business and Information*, *3*(1), 27–52.

Lubis, A. H., Amelia, W. R., Ramadhani, S. N., Pane, A. A., & Aryza, S. (2019). Indonesian millennials' behavior intention to online shopping through instagram. *International Journal of Scientific and Technology Research*, *8*(11), 2466–2471.

Mahardhika, A. S., & Zakiyah, T. (2020). Millennials' Intention in stock investment: extended theory of planned behavior. *Riset Akuntansi Dan Keuangan Indonesia*, *5*(1), 83–91. https://doi.org/10.23917/reaksi.v5i1.10268

Mensah, I. K., Chuanyong, L., & Zeng, G. (2020). Factors determining the continued intention to use mobile money transfer services (MMTS) among university students in Ghana. *International Journal of Mobile Human Computer Interaction*, *12*(1), 1–21. https://doi.org/10.4018/IJMHCI.2020010101

Mohd Ariffin, N. H., Ahmad, F., & Mohd Haneef, U. (2020). Acceptance of mobile payments by retailers using UTAUT model. *Indonesian Journal of Electrical Engineering and Computer Science*, *19*(1), 149. https://doi.org/10.11591/ijeecs.v19.i1.pp149-155

Musa, A., Khan, H. U., & AlShare, K. A. (2015). Factors influence consumers' adoption of mobile payment devices in Qatar. *International Journal of Mobile Communications*, *13*(6), 670–689. https://doi.org/10.1504/IJMC.2015.072100

Nassar, A. A. M., Othman, K., & Nizah, M. A. B. M. (2019). The impact of the social influence on ICT adoption: Behavioral Intention as mediator and age as moderator. *International Journal of Academic Research in Business and Social Sciences*, *9*(11). https://doi.org/10.6007/ijarbss/v9-i11/6620

Natarajan, T., Balasubramanian, S. A., & Kasilingam, D. L. (2017). Understanding the intention to use mobile shopping applications and its influence on price sensitivity. *Journal of Retailing and Consumer Services*, *37*(February), 8–22. https://doi.org/10.1016/j.jretconser.2017.02.010

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*(2016), 404–414. https://doi.org/10.1016/j.chb.2016.03.030

Patil, P., Tamilmani, K., Rana, N. P., & Raghavan, V. (2020). Understanding consumer adoption of mobile payment in India: Extending Meta-UTAUT model with personal innovativeness, anxiety, trust, and grievance redressal. *International Journal of Information Management*, *54*(February), 102144. https://doi.org/10.1016/j.ijinfomgt.2020.102144

Pavlou, P. A. (2003). Consumer acceptance of electronic commerce: Integrating trust and risk with the technology acceptance model. *International Journal of Electronic Commerce*, *7*(3), 101–134. https://doi.org/10.1080/10864415.2003.11044275

Peša, A. R., & Brajković, A. (2016). Testing the 'black swan effect' on croatian stock market between 2000 and 2013. *EMAJ: Emerging Markets Journal*, *6*(1), 1–16. https://doi.org/10.5195/emaj.2016.92

Priporas, C. V., Stylos, N., & Fotiadis, A. K. (2017). Generation Z consumers' expectations of interactions in smart retailing: A future agenda. *Computers in Human Behavior*, *77*, 374–381. https://doi.org/10.1016/j.chb.2017.01.058

Qi, S., Jin, K., Li, B., & Qian, Y. (2020). The exploration of internet finance by using neural network. *Journal of Computational and Applied Mathematics*, *369*, 112630. https://doi.org/10.1016/j.cam.2019.112630

Ramadhan, A. F., & Simanjuntak, M. (2018). Perilaku pembelian hedonis generasi z: promosi pemasaran, kelompok acuan, dan konsep diri. *Jurnal Ilmu Keluarga Dan Konsumen*, *11*(3), 243–254. https://doi.org/10.24156/jikk.2018.11.3.243

Septiani, R., Handayani, P. W., & Azzahro, F. (2017). Factors that affecting behavioral

Mobile Payment, UTAUT, Behavioral Intention, Z Generation

intention in online transportation service: Case study of GO-JEK. *Procedia Computer Science*, *124*, 504–512. https://doi.org/10.1016/j.procs.2017.12.183

Setiaji, S. A. (2019). Penggunaan mobile payment di indonesia tumbuh.

Shankar, A., & Rishi, B. (2020). Convenience matter in mobile banking adoption intention? *Australasian Marketing Journal*, (xxxx). https://doi.org/10.1016/j.ausmj.2020.06.008

Singh, A. P., & Dangmei, J. (2016). Understanding the Generation Z: the Future Workforce. *South -Asian Journal of Multidisciplinary Studies*, (July).

Singh, N., & Sinha, N. (2020). How perceived trust mediates merchant's intention to use a mobile wallet technology. *Journal of Retailing and Consumer Services*, *52*(July 2019), 101894. https://doi.org/10.1016/j.jretconser.2019.101894

Slade, E. L., Dwivedi, Y. K., Piercy, N. C., & Williams, M. D. (2015). Modeling consumers' adoption intentions of remote mobile payments in the United Kingdom: Extending UTAUT with Innovativeness, Risk, and Trust. *Psychology & Marketing*, *32*(8), 860–873.

Sobti, N. (2019). Impact of demonetization on diffusion of mobile payment service in India: Antecedents of behavioral intention and adoption using extended UTAUT model. *Journal of Advances in Management Research*, *16*(4), 472–497. https://doi.org/10.1108/JAMR-09-2018-0086

Sommer, L. (2011). The theory of planned behaviour and the impact of past behaviour. *International Business & Economics Research Journal (IBER)*, *10*(1), 91–110. https://doi.org/10.19030/iber.v10i1.930

Sudono, F. S., Adiwijaya, M., & Siagian, H. (2020). The influence of perceived security and perceived enjoyment on intention to use with attitude towards use as intervening variable on mobile payment customer in Surabaya. *Petra International Journal of Business Studies*, *3*(1), 37–46. https://doi.org/10.9744/ijbs.3.1.37-46

Ting, H., Yacob, Y., Liew, L., & Lau, W. M. (2016). Intention to use mobile payment system: a case of developing market by ethnicity. *Procedia - Social and Behavioral Sciences*, *224*(August 2015), 368–375. https://doi.org/10.1016/j.sbspro.2016.05.390

Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly*, *27*(3), 425. https://doi.org/10.2307/30036540

Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer acceptance and use of information technology: extending the unified theory of acceptance and use of technology. *MIS Quarterly*, *36*(1), 157–178. https://doi.org/10.2307/41410412

Widyanto, H. A., Kusumawardani, K. A., & Septyawanda, A. (2020). Encouraging behavioral intention to use mobile payment: an extension of Utaut2. *Jurnal Muara Ilmu Ekonomi Dan Bisnis*, *4*(1), 87. https://doi.org/10.24912/jmieb.v4i1.7584

Yang, J., He, X., & Lee, H. (2007). Social reference group influence on mobile phone purchasing behaviour: A cross-nation comparative study. *International Journal of Mobile Communications*, *5*(3), 319–338. https://doi.org/10.1504/IJMC.2007.012397