

The Analysis on Factors Influencing the Use of Mobile Payment System Among Generation Z in Indonesia

Kurnia Fajar Afgani

School of Business and Management
Institut Teknologi Bandung
Indonesia
kurnia.fajar@sbm-itb.ac.id

Octaviani Ratnasari Santoso

Politeknik Pajajaran ICB
Bandung, Indonesia
octaviani.santoso@gmail.com

Dematria Pringgabayu

Politeknik Pajajaran ICB
Bandung, Indonesia
demabayu5@gmail.com

Emilia Fitriana Dewi

School of Business and Management
Institut Teknologi Bandung
Indonesia
emilia.f@sbm-itb.ac.id

Zxavian Zebadia Simorangkir

School of Business and Management
Institut Teknologi Bandung
Indonesia
zxavian_zebadia@sbm-itb.ac.id

Abstract

Since the use of Mobile Payment is increasing from the past few years, the issue of the factors that influence the use of Mobile Payments is not to be amiss. This study aims to determine the factors that significantly influence the users' usage of mobile payment instruments. The research was conducted by using an online survey questionnaire and distributed among the respected 414 respondents. The factors that were studied in this research are the influence of performance expectancy, effort expectancy, social influence, trust and perceived security towards the behavioral intention of mobile payment usage. This study uses the quantitative method with Generation Z as the unit of analysis while the targeted population would be the respondents from Bekasi city. Based on the research, two of the factors have a significant relationship towards the behavioral intention to use the mobile payment instrument. In addition, the most influential factor from the highest to lowest would be perceived security and social influence. In conclusion the perceived security variable is the most influential variable.

Keywords

Mobile Payments; Generation Z

1. Introduction

The mobile payment system is one of the solutions that can be used to replace the transaction that occurs in the cash payment system. By using the mobile payment system, the need to carry cash will not emerge. The reason is because with the mobile payment system, all of the cash that is needed to be brought in a transaction can be simply stored in an account after they top up in the mobile payment application. Since the top up of the mobile payment can be done by going to the outlet, which is handled directly, it can be conducted via ATM transfer, SMS Banking, Mobile Banking, and others. With that in mind, the people who want to conduct transactions using the mobile payment are only needed to bring their smartphone for it.

In time efficiency, the mobile payment system exceeds the time for the cash payment system needed in conducting a transaction. As stated by Polasik et. al (2011), the cash payment system takes longer time to be conducted than the contactless payment system such as mobile payment. In a cash payment system, the user needs to bring out their cash, hand the money to the seller, and wait for the change in case of the excess of the currency that they had given. By using the mobile payment system, the user only needed to bring out their smartphone, conduct the transaction by either transferring the amount of money or scanning the QR code that is usually provided by the buyer. In addition, the mobile payment system also will eliminate the need for the user to wait for the change because mobile payment transactions will pay exactly as the amount needed to be paid.

With the use of mobile payment as the transaction system, the cash payment system's criminality vulnerability can be minimized. The mobile payment system has a standard security system that every mobile payment provider must have while the transaction that occurs in the public can also be tracked in detail. In case the smartphone got stolen, the user can block their account by contacting the mobile payment provider that is registered in their phone to prevent the use of their account for criminal use. Since the transaction in mobile payment occurs transparently to the mobile payment provider, the criminal act of counterfeit money would not be able to occur on mobile payment transactions.

With the conveniences that are being offered by mobile payment, the mobile payment system is growing rapidly in Indonesia. As stated by Chandra et. al (2018), mobile payments that are created by the financial sector in Indonesia always continues to improve the ease of use of the application in every update that they make, which then facilitates the growing usage of mobile payments in Indonesia. In addition, Chandra (2017) states that in Indonesia, the mobile payments are not limited to only being created from banks, the telecommunication companies can also create mobile payment applications. According to Liébana-Cabanillas, Sánchez-Fernández & Muñoz-Leiva (2014), the users of mobile payments increases from youth to the elderly, the reason is because of the ease of financial transactions through smartphones as the payment medium. Based on the data that has been stated, it can be concluded that the mobile payment system is growing rapidly in Indonesia and it would be interesting to study the factors that influence the mobile payment adoption.

In order to measure the level of mobile payment adoption, it is important to know the characteristics of the public in the country. In 2019, the total population of Indonesia will reach 267 million lives. According to the Badan Pusat Statistik data in 2019, Indonesia has the expansive pyramid population type. This means that the country is enriched with the young generation. Generation, as stated by Mc Crindle and Wolfinger (2010), refers to a sum of people who were born in a similar life period and shaped by a rather same event, trends, and development in a particular span of time.

According to Oblinger and Oblinger (2005), generation Z is a generation of the future who is born between 1995 and 2010. In comparison, as stated by Grail Research (2011), with the other generations such as Generation Y, Generation X or the Baby Boomer, Generation Z is the best choice because it is the first who have the highest readiness level of the internet and technology from their young age. This means that they have interacted with technology from their early life and have been their everyday life. This would also imply that Generation Z can easily adapt to the technology or changes in trends of using technology because they have the highest readiness level from their young age.

As stated by Patel and Connolly (2007), the adoption of technology always has some factors that influence it. With mobile payment being a part of technological-based payment instruments, it also has some factors that influence its adoption in public (Junadi, 2015). This means that there are also factors that influence the adoption of mobile payments in Indonesia.

Since the Gerakan Nasional Non-Tunai (GNNT) was launched by the Central Bank of Indonesia in 2014, Bank of Indonesia has been proven to support the cashless journey of Indonesia by developing a new payment system to replace the cash payment system. According to the discussion that has been previously conducted, it can be concluded that the cash payment system is becoming more and more harmful to society and the electronic payment system, especially mobile payment system, can be used as an alternative in conducting payment on transactions in the digital era. Also, since the mobile payment usage in Indonesia is starting to grow, it should be interesting to study the factors that influence the public intention to use the mobile payment system. By knowing the factors, those factors can be taken into consideration as a concern to increase the current level of mobile payment adoption in Bekasi city. The factors also can be used to identify the most influencing factors so that the mobile payment provider can focus on innovating the mobile payment system based on the factors that influence the public intention to use the mobile payment. The research would be conducted in a small scope, which is generation Z as a generation that has been familiar with the use of technology-based instruments, and in a particular city, which is Bekasi city, Indonesia.

All in all, it is very important to understand the factors that influence the use of mobile payment systems among generation Z in Bekasi city. By identifying the factors affecting the use of mobile payment systems among generation Z in Bekasi city, the research can be used for the mobile payment system service provider to know the factors that attract and influence the customer to use the mobile payment system. Furthermore, the research can also be used for the government, mainly Bank Indonesia, to focus on innovating as well as attracting the customer to use the mobile payment based on the factors that are studied in the research. Creating further innovation and building government-related decisions from this study is recommended to be created, for supporting the use of mobile payment systems in the future

1.1 Objectives

Based on the research background, the research objectives are in the following:

To identify the factors that influence the Behavioral Intention (BI) to use the Mobile Payment among Generation Z in Bekasi city, Indonesia.

To identify the most influential factor that influences the Behavioral Intention (BI) to use the Mobile Payment among Generation Z in Bekasi city, Indonesia.

2. Literature Review

Electronic Payment Instrument Definition

According to Salloum et. al (2018), the educational and business industries have begun to invest in information systems (IS), which has resulted in an increase in the prevalence of the internet over the last two decades. The Electronic payment system, as one of the systems, has become a new research trend. Electronic payment instruments have become a source of concern and study due to their importance in today's electronic commerce age. As a result, as stated by Kabir, Saidin, and Ahmi (2015), various viewpoints on the concept of electronic payment emerge, each of which is seen from a different perspective such as finance, business technology, as well as information systems.

From the perspective of finance, according to Abrazhevich (2004), electronic payment can be defined as a form of financial instrument where both buyers and sellers conduct transactions while facilitated by electronic communications. In more specific terms, Teoh, Chong, Lin, and Chua (2013) described electronic payment as an electronic value payment sent from a payer to a payee via a comprehensive electronic payment channel that enables the payer to freely view and handle their transactions over the internet. In addition, as stated by Tella (2012), electronic payments can also be defined as payment processes conducted without the payment instrument usage. Based on the definitions that have been stated, the electronic payment can be defined as a payment instrument that is conducted from the payer to the payee via electronic payment channel without the payment instrument usage.

Electronic Payment Instrument Types

In order to simplify the electronic payment instrument types, according to Raja and Velmurgan (2008), there are three categories based on the underlying systems of the instrument. There are cash-like systems, check-like systems, as well as hybrid systems. The cash-like system consists of electronic cash (e-cash) instruments. The check-like system consists of credit and debit card instruments. Lastly, the hybrid system consists of stored-value card instruments. Furthermore, since the internet plays a significant role in the growth of electronic payment instruments, according to Shon and Swatman (1998), there is a new category that has emerged as a result of the development of the internet

called internet payment system. The internet payment system consists of electronic wallet (e-wallet), mobile payment, mobile banking, and internet banking.

Electronic Cash (E-cash)

According to Razali (2002), the electronic cash (e-cash) is one of the first electronic payment instruments to draw people's interest and encourage them to abandon the use of physical cash in favor of electronic transactions. According to Junadi (2015), the general concept of e-cash is payment processing over the internet using a particular, authenticated token that represents money from the customer to the seller. Consumers can deposit money or a credit card, and the bank will issue tokens (encrypted random numbers) of various amounts to be used for shopping at the retailer location. E-cash is intended to replace the use of physical money with the use of digital money stored on the users' smartphones. The examples of electronic cash providers in Indonesia are Mandiri E-Money, JakCard and MYNT E-Money.

Credit Card

Credit Card, according to the definition by Bank Indonesia in Instrumen (2021), is a transaction instrument that uses a card to make purchases for obligations resulting from economic activity, such as purchasing purchases and/or cash withdrawals, where the acquirer or issuer fulfills the cardholder's payment responsibilities in advance and the cardholder is forced to make payments. Payment at the agreed-upon period, either in full (charge card) or by payment in installments. Based on the data by AKKI (Asosiasi Penerbit Kartu Kredit Indonesia) in Profile AKKI (2021), AKKI currently has 24 members who are credit card issuing institutions, such as Bank Negara Indonesia 1946 (BNI); Bank Mandiri; Bank Central Asia (BCA); Bank Danamon; etc., with a total of more than 17 million cardholders (as of April 2019 data) who work with over 450 thousand merchants.

Debit Card

According to the definition by Bank Indonesia in Instrumen (2021), a debit card can be called an ATM (Automatic Teller Machine) card. According to Bank Indonesia in Instrumen (2021), debit card or ATM card is a transaction instrument that uses a card that can be used to pay for commitments resulting from business activity, such as spending expenses, where the cardholder's obligations are met automatically by directly lowering the cardholder's deposits at a bank or non-bank entity approved to collect funds under the current law. There are many debit card issuers in Indonesia for example Bank Central Asia (BCA), Bank Mega, Bank Mandiri, Bank Danamon, Bank Negara Indonesia 1946 (BNI), Bank HSBC, Bank OCBC NISP, etc.

Stored-value Card

Stored-value cards, according to Junadi (2015), is the mechanism that enables customers to make instant online purchases to retailers and other entities depending on the value of their online account. You can reload a reloadable stored-value card by adding money to it from an automatic teller machine or another device.

The stored-value card actually looks the same with both credit card and debit card, the difference is that there are two types of stored-value card. The first, the open-loop stored value card, is the type of stored-value card that has the same functionality as credit and debit cards. The example of open-loop stored-value cards in Indonesia are Indomaret Card, GazCard, E-Toll Card, and Mandiri E-Cash. The second type is the close-loop stored-value card. The close-loop card is a stored-value card that can only be used for a particular retailer such as the issuer of the card. The example of closed-loop stored-value cards in Indonesia are Starbucks and CGV Blitz cards.

Electronic Wallet (E-wallet)

Electronic wallets (e-wallets), according to Junadi (2015), like traditional wallets, are used to store information such as credit card numbers, ecash, the owner's identification, contact information, delivery or billing information, like customer address, and other information that is entered during the checkout process on e-commerce pages. In addition, Upadhayaya (2012) also defined that an E-wallet is a payment instrument that works in conjunction with a credit card. It was designed to make the credit-card order process easier for customers by allowing them to monitor their billing and delivery details. In Indonesia, the example of e-wallet providers are GOPAY, OVO, Dana, LinkAja, DOKU Wallet, iSaku, Sakuku, and Jenius.

Mobile Payment

According to Junadi (2015), a mobile payment system is a form of payment system that focuses on mobile devices or smartphones as a device for exchanging monetary value transactions and is operated by mobile network operators. Also, Yan and Yang (2014) added that the people who wanted to use it simply needed to register their mobile number

and account to the mobile payment application. In addition, Liébana-Cabanillas, Sánchez-Fernández & Muñoz-Leiva (2014) has stated that the users of mobile payments increases from youth to the elderly because of the ease of financial transactions through smartphones as the payment medium

Mobile payments come in a variety of forms, but the technologies used to send them can be divided into two categories: long-distance and near-distance payments. On long-distance payments, customers are required to sign up for the service, which normally involves installing an app, and then use it to pay for an object via their mobile device. Customers can deposit money in prepaid accounts or borrow money from their bank accounts. Examples of payment service providers such as Google and Paypal are using cloud-based long-distance approach to mobile payments in stores. On the other hand, the near-distance payment require the customer to show their smartphone, tablet, or electronic device at a payment terminal while holding it within a few centimeters to complete the transaction.

According to Morgan (2013), mobile payment can be divided into three categories such as Mobile commerce, Mobile acceptance, and Mobile wallet. Mobile commerce, as stated by Coursaris & Hassanein (2002), is one of the e-commerce types. Mobile commerce is conducted by using smartphones that allow the digital transaction to occur directly to customers' hands, anywhere, through wireless technology. Mobile payment acceptance, on the other hand, refers to the conversion of electronic devices (such as smartphones, tablets, etc.) into the system by modifying it with either temporary or permanent hardware that would allow merchants to accept card-based payments. For instance, a shop gadget, such as a magnetic stripe reader, may be attached to a customer's smartphone with an audio jack to create an additional barcode scanner or to process debit or credit card purchases. Lastly, Mobile wallet can be defined as a mobile service that enables users to make payments without using credit or debit cards. According to Taylor (2016), there are a variety of mobile wallet vendors, some of which rely on proximity technologies such as close field communications, which can be inserted in smartphones or stickers, and others which are cloud-based.

When the mobile payment service program is registered, it can be used to pay for non-cash products and services. Top ups can be made in person at the outlet, through an ATM switch, SMS Banking, Mobile Banking, and so on. Mobile payments usually use three platforms to make payments such as QR Code, OneTime Password (OTP), and Near-Field Communication (NFC). Currently in Indonesia, there are several mobile payment providers such as GOPAY, OVO, LinkAja, Dana, iSaku, Doku, Sakuku, PayTren and True.

Explanation and Behavioral Traits of Generation Z

Generation Z mainly rely on the emerging technologies because they were born in a digital world, which has influenced how they play, learn, and interact (Grail Research, 2011). Technology has become an important part of their lives. Research conducted by Vision Critical (2016) shows that Generation Z's behavioral traits are greatly influenced by their habits in following technological developments from the start. The behavioral traits of Generation Z based on Vision Critical (2016) research are as follows.

Behavioral Traits towards Technology

In contrast to Millennials, Generation Z has been described as a generation that is more interested in playing with technology and becoming more sensitive to its changes. Generation Z has become more available thanks to the use of computers, the internet, smart devices, and social networking sites. Since they are so enamored of the use of technologies, they crave communication, which leads them to become impatient as the world falls behind.

Grail Research (2011) had stated that people from Generation Z need to be linked all of the time, whether it's via the internet, text messages, smart devices, or other social media platforms. These traits influence them on making decisions while creating a broader exposure to culture, language, and ideas. They are not, though, enabling technology to bind them; what they want is connectivity: to communicate with others in simpler and easier ways, and to complete tasks without difficulty. In addition, Vision Critical (2016) also stated that their desires for technology and its communication have become a part of their identity which will form the technological future.

Performance Expectancy (PE)

From Venkatesh et al. (2003), Performance Expectancy is described as the degree to which a person believes that implementing technology can help him or her improve job results. In addition, Casey and Wilson-Evered (2012) had stated that Performance Expectancy refers to a person's confidence that such developments can lead to positive outcomes. Based on the definitions, we can conclude that the Performance Expectancy can be described as the degree of a person's beliefs or confidence that by implementing a particular technology can lead to positive outcomes such

as helping them to improve their job results. According to Venkatesh et al. (2003) research, Performance Expectancy is adopted from several factors from the previous models. The factors consist of perceived usefulness (technology acceptance models), external motivation (motivational model), job fit (PC utilization model), relative advantages (innovation diffusion theory) and outcome expectations (social cognition theory).

Davis, Bagozzi and Warshaw (1989) had stated that individuals tend to be more motivated in using as well as accepting new technology when they perceive the technology to be more advantageous and useful in their daily life. In referring to the technology adoption, Zhou, Lu, and Wang, (2010) had stated that the ease with which users feel at ease when using technology would raise the expectations of the performance of the technology. This statement is backed up by previous studies, which has shown that expectancy output has an effect on behavior intention such as Venkatesh et al. (2003), Ghalandari (2012), Rosnidah et. al (2018), Alalwan, Dwivedi and Rana (2017), and Zhou, Lu, and Wang (2010). Therefore, Performance Expectancy is a necessary factor in determining a population level of adoption of mobile payment.

Effort Expectancy (EE)

According to Venkatesh et al. (2003), Effort expectancy is the extent of convenience perceived for using the system. When users believe that using technology is easy, their expectations for it to work well rise. In other models and theories, as stated by Ghalandari (2012), there are similar constructs of Effort Expectancy such as perceived ease of use (technology acceptance model) and complexity (PC utilization model and innovation theory). As stated by Davis, Bagozzi and Warshaw (1989), individuals' willingness to adopt a new system is affected not just by how highly the system is viewed, but also by how convenient it is to use and how little effort is needed.

The Effort Expectancy was chosen as a key determinant of behavioral intention based on prior research that has shown that Effort Expectancy has an effect on customers' intention on using mobile payment such as Venkatesh et al. (2003), Ghalandari (2012), Rosnidah et. al (2018), and Alalwan, Dwivedi and Rana (2017). Therefore, given the specific nature of mobile payment, which necessarily involves a certain level of expertise and skill, Effort Expectancy may determine the customers' intention to use such technology.

Social Influence (SI)

Social Influence, as stated by Venkatesh et al. (2003) on the UTAUT model, can be identified as the degree to which an individual perceives that other ones are important to him/her in using new systems. In addition, as stated by Alalwan, Dwivedi and Williams (2016), information and support given by those in the close surroundings of customers could play an important role in raising customer awareness and motivation to use technology. The constructs of Social Influence in other models and theories, as stated by Venkatesh et al. (2003), are Subjective Norms from TRA (Theory of Reasoned Action), TPB (Theory of Planned Behavior), and C-TAM-TPB (Combined TAM and TPB), Image from DIT (Diffusion of Innovation Theory), and Social Factors from MPCU (Model of PC Utilization).

For mobile banking perspective, Zhou, Lu, and Wang (2010) had stated that Social influence can be described as the impact of a customer's social environment on their decision to use mobile banking, such as reference groups, relatives, opinionated leaders, friends, and colleagues. The choice of social influence as a key determinant of behavioral intention is based on prior research that indicates that social influence has an effect on customers' willingness to use online banking channels such as Venkatesh et al. (2003), Ghalandari (2012), Rosnidah et. al (2018) and Zhou, Lu, and Wang (2010). Therefore, the Social Influence will be one of the factors that would determine the level of adoption of mobile payment.

Trust (TR)

According to Gefen, Karahanna, and Straub (2003), Consumer trust in Mobile banking can be operationalized as the accumulation of customer values of honesty, benevolence, and capacity that could improve customer willingness to rely on Mobile banking to complete financial transactions. Trust has been studied extensively and shown to be an important factor in predicting consumer perceptions and intentions toward Mobile Payment such as the studies by Alalwan, Dwivedi and Rana (2017), Perkins and Annan (2013) and Salloum and Al Emran (2018). In the research by Alalwan, Dwivedi and Rana (2017), trust was found to be the most significant factor predicting the customers' intention to adopt Mobile banking. According to the research by Perkins and Annan (2013), as a result, trust is considered a significant construct in the study's investigation of students' intentions to use the e-payment system. Consequently, in this current study, trust is supposed to have a direct effect on customers' intention to use Mobile Payment services.

Perceived Security (PS)

According to Huang and Cheng (2012), to prevent data and network issues, security is a collection of protocols, processes, and computer programs that authenticate the source of information and ensure its confidentiality and privacy. Junadi (2015) had stated that perceived security becomes one of the factors that are being tested towards the user's behavioral intention to use electronic payment. When it comes to electronic payment instruments, as stated by Kolsaker (2002), security refers to both the individual's understanding of the payment method's worthiness and all of the instrument's data transmission and storage mechanisms.

On the other hand, Flavian and Guinaliu (2006) stated that Perceived protection is described as the subjective likelihood that individuals believe their personal information will not be accessed and misused by untrustworthy parties. There are some of the previous studies that have been using security as a factor to examine users' intention to use electronic payment instruments, such as Perkins and Annan (2013), Ghorban, Jajae and Tahernead (2011) and Susanto et al. (2013). Thus, based on the previous research that has been conducted, Perceived Security is supposed to have a direct effect on the customers' intention to use mobile payment.

Behavioral Intention (BI)

In the prior literature, as stated by Ajzen (1991), Behavioral intention has been consistently found to play a major role in deciding how new systems are used and accepted. According to Lu, Huang and Lo (2010), Behavioral intention refers to a person's willingness to engage in such behaviors and is believed to be a spontaneous action. In reference to technology, as stated by Davis, Bagozzi and Warshaw (1989), Behavioral Intention can be defined as the desire to keep using technology. Even though the behavioral intention can influence the actual use of a technology, as stated by the prior research such as Venkatesh et al. (2003), Ghalandari (2012) and Rosnidah et al. (2018), the influence of Behavioral Intention to the actual use of a technology will not be added into the research because the limitation of time. The result of Behavioral Intention towards the actual use of technology must be measured in a certain amount of period while this research has the time limitation on conducting the study. Because of that, this study will not be researching the influence of Behavioral Intention on actual usage of technology.

3. Methods

The structured framework has been created above to make a clear picture of the research design for this study. According to the framework, the first step of the research is problem identification. After the problem identification, the research questions are formulated, and the research objectives are created to set the objectives to answer the research question. After that, the next step is to study the literature that relates with the research. After doing the literature review, the hypotheses would begin to develop based on the review to support the research. Next, after the development of hypotheses, the data collection would be held to collect the data that can support the hypotheses and help the research. After the collection of data, then it will be processed and analyzed by several tools in the method. Lastly, after the data analysis, the conclusion and recommendations would be made and given to complete the research.

Primary data will be collected in this study in order to collect new ideas, insights and information to have a greater understanding regarding the research. The primary data collection would be in the form of questionnaires that are filled with a set of questions regarding certain factors (PE, EE, SI, TR, PS and BI) and the use of mobile payment instruments for Generation Z in Bekasi city. Then, the questionnaire was also conducted to find out the most influential factors in affecting the use of mobile payment in Bekasi city.

The scope and limitations of this study have been stated in the previous chapter. Some of the limitations for this study are time and budget. Because of this limitation, to make the research more specific, the study would be conducted among Generation Z in Bekasi city. The term Generation Z itself is based on Oblinger and Oblinger (2005) that defines Generation Z as a generation who were born between 1995 and 2010.

Based on the data published by Badan Pusat Statistik of Bekasi City in 2020, the size of Bekasi City population in 2020 is 2,543,676 inhabitants. In addition, as stated in the *Tribun Jakarta* (2021), the population of Generation Z in Bekasi city in 2020 is around 676.109 people. In determining the sample size, the researchers will use Slovin's Formula Sampling method. In using the formula, the first thing to define is the margin of error. On the basis of this research, the margin of error will use the confidence level of 95 percent (the margin error would be 5 percent or

0.05). Hence, the calculation resulting from the questionnaire needed to be distributed would be to have to distribute 400 valid questionnaires from Generation Z in Bekasi City.

For data analysis, the first treatment would be by using the pilot test before conducting the questionnaire. In this research, to verify the questionnaire, 10% of the total number of minimum sample sizes are being selected. With the sample size OF 400, the number of people selected would be 40 people. The pilot test is conducted to ensure that the measurements in the questionnaire were acceptable by using the validity and reliability testing.

4. Data Collection

The primary data collection would be in the form of questionnaires that are filled with a set of questions regarding certain factors (PE, EE, SI, TR, PS and BI) and the use of mobile payment instruments for Generation Z in Bekasi city. Then, the questionnaire was also conducted to find out the most influential factors in affecting the use of mobile payment in Bekasi city.

The Secondary Data The secondary data is the pattern and relation from existing data that also needed to be figured out in order to support the research. The data mainly discuss the variables of this study: mobile payment instruments, Generation Z and the technology acceptance development. All of the data that were collected are being used as the important foundation of this research.

The unit of analysis definition is the first step that is needed to decide about how the research would be conducted and analyzed further. Based on Patel (2009) definition, the unit of analysis is defined as the basis of the research that is being studied. Because this research would be conducted among the Generation Z in Bekasi city, the unit of analysis on this research is a group.

Based on the data published by Badan Pusat Statistik of Bekasi City in 2020, the size of Bekasi City population in 2020 is 2,543,676 inhabitants. The population of Generation Z in Bekasi city in 2020 is around 676.109 people. In determining the sample size, the researchers will use Slovin's Formula Sampling method. The formula is computed below. $n = N / (1 + N * e^2)$ Whereas: n = Number of Samples N = Total Population e = Error margin/ Margin of Error In using the formula, the first thing to define is the margin of error. On the basis of this research, the margin of error will use the confidence level of 95 percent (the margin error would be 5 percent or 0.05). Hence, the calculation resulting from the questionnaire needed to be distributed would be to have to distribute 400 valid questionnaires from Generation Z in Bekasi City.

Targeting the respondents that represent the population needs to be done by corresponding techniques. The sampling technique is a fundamental foundation to all sampling theories that used the non-probability sampling technique, specifically the convenience sampling. According to the definition of Sugiyono (2019), a quantitative research approach is a research method based on the positivist philosophy that is used to analyze a population or individual samples. Sampling methods are usually performed randomly, data is collected using research instruments, and data analysis is quantitative/statistical to put a predetermined hypothesis to the test. According to Etikan (2016), the convenience sampling is the method where the respondents are chosen because they have met a certain criterion, for example the accessibility to the respondent, and/or the respondents' time availability. The data that would be collected is in the form of online questionnaires. The questionnaires will be distributed online via instant messaging apps such as LINE, WhatsApp, Facebook, and Instagram among Generation Z in Bekasi city.

5. Results and Discussion

5.1 Descriptive analysis

In terms of the completion of this study, the questionnaire that had been designed has been distributed to 414 generation Z in Bekasi City. As stated in the previous chapter, the research used the Slovin formula to determine the number of appropriate respondents for the questionnaire to be distributed. By using the formula and determining the confidence level of 95 percent (the margin error would be 5 percent or 0.05), the calculation result is that the researcher would have to distribute the questionnaire to 400 respondents from the appropriate category. Therefore, the questionnaire distribution is valid. In addition, this research would use the descriptive analysis in conducting the demographic profile analysis of the respondents' answers. The analyses would be explained as below

Table 1. Descriptive Analysis of General Results

Performance Expectancy (PE)		Mean	Median	Min	Max	Std.
PE1	I would find Mobile Payment helps me finish more transactions in a shorter period of time.	5.699	6	3	6	0.564
PE2	I would find Mobile Payment to make my transaction experience more convenient.	5.650	6	3	6	0.562
PE3	I would find Mobile Payment useful in making my transaction faster.	5.709	6	3	6	0.556
PE4	Overall, I would find Mobile Payment had answered my needs in conducting transactions.	5.555	6	3	6	0.666
Effort Expectancy (EE)		Mean	Median	Min	Max	Std.
EE1	I would find the ease in learning to operate Mobile Payment.	5.555	6	1	6	0.687
EE2	I did not find any difficulties in conducting transactions by using Mobile Payment	5.408	6	2	6	0.787
EE3	I can use Mobile Payment in conducting various types of transactions.	5.389	6	2	6	0.732
EE4	Overall, I would find Mobile Payment had helped me in conducting transactions without any difficulties.	5.623	6	3	6	0.610
Social Influence (SI)		Mean	Median	Min	Max	Std.
SI1	I use Mobile Payment because of the influence of the current trend.	4.437	5	1	6	1.217
SI2	My colleagues and family would find Mobile Payment is important.	4.655	5	1	6	0.975
SI3	My colleagues and family use Mobile Payment in conducting transactions.	4.691	5	1	6	0.948
SI4	Overall, the social environment influences myself on using Mobile Payment.	4.696	5	1	6	1.057
Trust (TR)		Mean	Median	Min	Max	Std.
TR1	I trust that Mobile Payment can keep my transaction in private.	5.202	5	1	6	0.975
TR2	I would find that Mobile Payment is giving honest information with good transparency.	5.361	6	2	6	0.764
TR3	I would find that Mobile Payment is giving promos and discounts without any act of deception.	5.139	5	2	6	0.824
TR4	Overall, my sense of trust influences me on using Mobile Payment.	5.498	6	1	6	0.744

Perceived Security (PS)		Mean	Median	Min	Max	Std.
PS1	I know that there is data privacy insurance on using Mobile Payment.	5.290	6	1	6	0.897
PS2	I would find that using Mobile Payment is safe because there is security assurance.	5.183	5	2	6	0.867
PS3	In case of facing difficulties in conducting transactions using the Mobile Payment, there is professional help from the Call Center to help me.	4.726	5	1	6	1.001
PS4	I feel safe in using Mobile Payment with the presence of government policy in safeguarding transactions.	5.026	5	2	6	0.771
PS5	Overall, I would find that my privacy is guaranteed when using Mobile Payment in transactions.	5.342	6	3	6	0.773
Behavioral Intention (BI)		Mean	Median	Min	Max	Std.
BI1	I intend to use Mobile Payment on transactions.	4.630	5	2	6	0.815
BI2	I plan to use Mobile Payment on transactions.	4.701	5	2	6	0.876

Based on the table 1 above, the highest mean value is from the question of PE3 “I would find Mobile Payment useful in making my transaction faster.” with the value of 5.709. The question is from the part of the Performance Expectancy variable. The statement means that the respondents mainly find that mobile payments are helping them in making their transactions faster. In addition, as stated by Hastuti (2021), when compared to before the government announced the Covid-19 pandemic phase in early March 2020, BRI mobile banking transaction services grew by 100 percent in May 2020. In addition, during the pandemic, the number of new OVO users increased by 267 percent. It is also stated in the news that from January to mid-May, DANA saw a 50 percent increase in transaction volume. The Gopay e-wallet, which is owned by Gojek, saw a 103 percent increase in transactions during the pandemic. From the statement, it can be seen that the use of Mobile Payment usage is continuously increasing based on the fact that mobile payments are indeed useful in making users' transactions faster.

The second highest mean score was the PE1 with the indicator “I would find Mobile Payment helps me finish more transactions in a shorter period of time.” and a mean score of 5.699. This means that the respondents mainly agree that the role of mobile payments helps them in finishing more transactions in a shorter period of time. In addition, by implying the indicator with the current situation, the result can be interpreted that the mobile payment makes the transaction faster during the pandemic situation that requires people to conduct minimum physical transactions.

On the other hand, the lowest mean score with the score of 4.437 was shown by the SI1 with the statement of “I use Mobile Payment because of the influence of the current trend.” From the mean score, we can see that the respondents assess that the influence of the current trend is not the reason why they use mobile payments. This score indicates that the current trend has a lower likelihood of persuading respondents to use electronic payment instruments; on the other hand, respondents do not use electronic payment instruments because they are influenced by the current trend.

5.2 Research Implications

This research examines the theoretical implications from the developed conceptual framework for elements that influence behavioral intentions to utilize electronic payment instruments. The research then is tested by using the statistical software Statistical Package for the Social Science (SPSS). Based on the analysis, the data shows that two of the factors that are being proposed in the model have a significant relationship towards the behavioral intention to use mobile payment instruments while the subject that is being tested is specifically the Generation Z in Bekasi City. The model of the conceptual framework as the result of this study would be shown in the figure below.

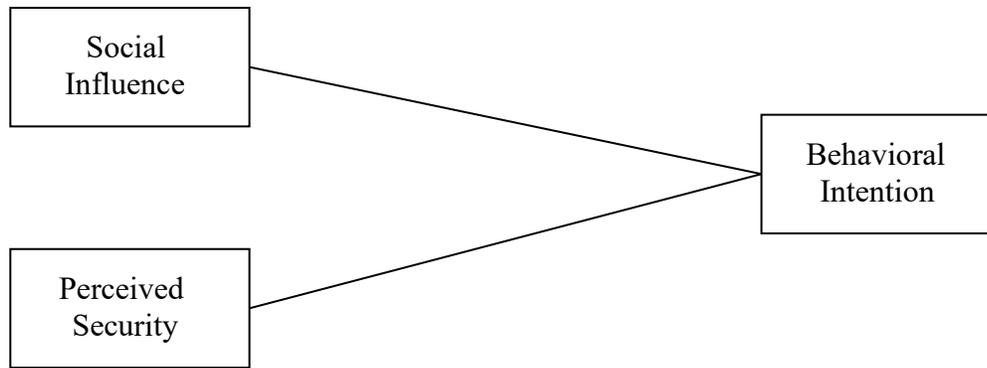


Figure 1. Conceptual Framework of the Study

Figure 1 shows a conceptual framework that may be utilized as a reference and literature study for individuals who want to alter or perform a study on the use of mobile payment instruments by Generation Z in Bekasi City. Since the Perceived Security is the most influential variables in this research, this research supports the previous research that have been using the Perceived Security as a factor to examine users' intention to use electronic payment instruments, such as Perkins and Annan (2013), Ghorban, Jajae and Tahernead (2011) and Susanto et al. (2013).

6. Conclusion

This research is purposed to identify the elements that influence the Generation Z's Behavioral Intention to use mobile payment instruments as well as their actual use, in Bekasi City, because mobile payment instrument usage is a better way in conducting transaction rather than by using the traditional cash payment. It is tested using a questionnaire that was delivered to 414 respondents in Bekasi City, spanning generation Z. The data is then examined using multiple linear regression with the statistical software Statistical Package for the Social Science (SPSS).

The first objective of this research is to identify the factors that influence the Behavioral Intention (BI) to use the Mobile Payment among Generation Z in Bekasi city. This research would first develop five factors from the previous study that would potentially influence the customers' Behavioral Intention in using mobile payment. Based on the previous study, the factors that would be identified would be Performance Expectancy, Effort Expectancy, Social Influence, Trust, and Perceived Security. The five factors then would become five hypotheses that would be analyzed by using the SPSS with Performance Expectancy as H1, Effort Expectancy as H2, Social Influence as H3, Trust as H4, and Perceived Security as H5. As interpreted from the questionnaire result as well as the analysis from the multiple linear regression by using the Statistical Package for the Social Science (SPSS), the factors that are identified to be significantly influence the behavioral intention of customers in using mobile payment are Social Influence and Perceived Security while the factors that have no significant relationship towards the Behavioral Intention are Performance Expectancy, Effort Expectancy and Trust. Therefore, this research accepted the hypotheses 3 and 5 (H3 and H5), while on the other hand rejected hypotheses 1, 2 and 4 (H1, H2 and H4). With that in mind, Social Influence and Perceived Security are influencing the Behavioral Intention to use mobile payment for Generation Z in Bekasi City.

The next objective is to identify the most influential factor that influences the Behavioral Intention (BI) to use the Mobile Payment among Generation Z in Bekasi city. From the data that has been analyzed by the SPSS, in order to determine the most influential factors, the value that must be identified is the unstandardized beta values. In order for the factor to be most influential, the factor must have the unstandardized beta values that have the furthest value from zero. The unstandardized beta value can either be positive or negative. Based on the analysis from the SPSS, the unstandardized beta value of each factor would be as follows. Social Influence (0.086) and Perceived Security (0.112). Since the variable with the unstandardized beta values furthest from zero is required to find the most influential variables, the furthest unstandardized beta value from zero would be 0.112. Finally, the Perceived Security variable has the greatest influence.

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Biography

Kurnia Fajar Afgani is the full-time lecturer in Business Risk and Finance group. His research interests are Islamic Finance and Business Economics. His teaching interest includes Business Economics, and Islamic Finance. He graduated with Master of Business Administration from the School of Business and Management (SBM) ITB, and has also obtained a Bachelor of Business Administration from Parahyangan Catholic University (Unpar). He worked for the Bank BJB Syariah Company for around 10 years Prior to taking this position as a faculty member of the SBM ITB until present.

Octaviani Ratnasari Santoso is the part-time lecturer in People and Knowledge group. She has an interest and ability in the field of social life, cross-cultural and accounting. In addition, she also has an interest in human resource development such as improve employees' welfare, personality development, and empowerment people. Now, she was a part-time lecturer in School of Business and Management Institut Teknologi Bandung (SBM ITB) and Politeknik Pajajaran Bandung.

Dematria Pringgabaya had graduated from Parahyangan University majoring in Public Administration. In 2016, He gets his master degree in Management from Widyatama University. After graduated from bachelor degree, he has much experience in manufacture industry as HR Officer and social media agency as Head Analyst, and now he is an academic tutor in SBM-ITB. His expertise are in statistical analysis, business research methods, and Human Capital Management.

Emilia Fitriana Dewi was a bachelor of Law from Parahyangan University. In 2011, she got her master degree in Business Administration from SBM ITB. After graduating from a bachelor degree, she has much experience as a Public Relation and Marketing Communication. Currently, her expertise is on Business law, knowledge management, and management practice. She is currently completing his doctoral studies at the Faculty of Law, Pajajaran University, Bandung.

Zxavian Zebadia Simorangkir A creative person who has been a social media enthusiast since 2015. Experienced in public services, helping people is always a pleasure for me. Have helping people thru the Department of Transportation. Has created various kinds of creative videos such as education, transition, stop motion, entertainment, and others. Good at managing. Actively participating in various competitions.