

A CONCEPTUAL STUDY ON THE USE OF ELECTRONIC PAYMENT INSTRUMENTS AMONG GENERATION Z IN BANDUNG CITY

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Abstract

This study aims to provide a proposed model to determine the extent that the use of electronic payment instruments is being adopted among Generation Z in Bandung City. A proposed model is arranged by modifying the dependent variable of a previous model by Junadi in his study on the factors that influence people in Indonesia to use electronic payment instruments. The proposed model in this study has five independent variables, which combines UTAUT (Unified Theory of Acceptance and Use of Technology) with culture and perceived security as external variables. The independent variables lead to an intervening variable, which is behavioral intention to use electronic payment instruments, lastly to the dependent variable, namely the actual use behavior of electronic payment instruments. The hypotheses on the proposed model of this study will determine the adoption level of electronic payment instruments among generation Z in Bandung City. This study is the first in providing a proposed model to determine the adoption of electronic payment instruments among generation Z in Bandung City. The findings will be useful as reference for further studies on the adoption of electronic payment instruments.

Keywords: *Cashless society, electronic payment instrument, technology adoption, UTAUT*

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1. Introduction

Having a good and stable national economy condition is the focus of countries worldwide. According to Ajayi and Ojo (2006), one of the factors that drive up the development of national economy is the presence of a secure, convenient, and affordable payment instrument.

In Indonesia, there are several types of payment instruments used by the society. Starting from the paper-based payment instrument such as cash and check, to electronic payment instruments such as debit cards, credit cards, electronic money, and mobile payment. As stated by Humphrey (2004), most developed countries in the world are already starting to shift from paper-based payment instruments to the electronic-based, on which payment cards are being used intensively.

In accordance with the use of electronic payment instrument throughout the society, which in the other hand can be called as a non-cash payment instrument, it brings up something called: Cashless Society. Daniel et.al. (2004) define a cashless society as one in which the absence of cash transactions is prominent. In these past years, cashless society has become a concern among countries, due to the fact that cash usage costs approximately around 1.5% of GDP. Meanwhile, the use of electronic payment instruments has proven to boost economic growth and advance financial inclusion (Thomas et.al. 2013).

The data from Thomas et.al. (2013), which talks about the global journey from cash to cashless states that there are three indicators involved: Share, Trajectory, and Readiness. Indonesia is listed in the inception stage, which is the lowest among 3 other stages (transitioning, tipping point, and nearly cashless). This indicates that Indonesia has only begun to shift away from the use of cash. In this point, innovation and government leadership are needed in to spur the change and reach a higher level.

The Central Bank of Indonesia created a campaign called Gerakan Nasional Non-Tunai (GNNT) on August 14, 2014. This campaign aims to encourage the public to start using electronic cash payment instruments rather than cash. Data from Cental Bank of Indonesia (2014) shows that cash transactions in Indonesia comprised 99.4% of total retail transactions. Compare to other ASEAN countries such as Thailand with cash transactions of 97.2% and Singapore with 55.5%, Indonesia is the least favourable.

The characteristic of the society takes an important role to achieve a cashless society as well, whether the society is eager to change from the current practice of using cash to using electronic payment instruments.

Currently, the total population of Indonesia is around 260 million people. To simplify, this population can be classified throughout its generation. McCrindle and Wolfinger (2010) defines "generation" as "a group of individuals, living in the same life period, and being influenced by the same technologies and experiences."

To support the journey towards a cashless society, the most straight-forward approach would be to target the generation who are most responsive to technology and the digital age. Meet generation Z, the generation born between 1995 and 2010 (Strauss and Howe, 1991). Generation Z has the highest readiness level for the internet, as they have been exposed to this technology from a very young age.

This study is focused on determining the current level of acceptance regarding the use of electronic payment instruments. The population to be studied is generation Z in Bandung City, because it represents the population who live in the digital era and use the internet, making them responsive to technological changes.

The result of this study will be used to accelerate a cashless society in Indonesia. A recommendation to create further innovation as well as government enactments is also not to miss.

2. Literature Review

This part provides explanation of the theories and definitions regarding the terms used in this research, to give insight to the reader.

Electronic Payment Instrument

Definition of an Electronic Payment Instrument

Abrazhevich (2004) defines electronic payment as “...a form of financial instrument, where buyer and seller are facilitated by electronic communications...” While in simple terms, Tella (2012) defines electronic payment as any types of payments made without using any paper instruments.

Types of Electronic Payment Instrument

Wayner (1997) introduced four major categories of electronic payment instruments, which are online credit card payment; electronic cash; electronic checks; and micro payment system. Furthermore, Laudon and Traver (2011) has made the explanation regarding the electronic payment instruments, and classify it more specifically as online credit card transaction, electronic wallet, electronic cash, online stored value systems, digital accumulating balance systems, digital checking payment systems, and mobile payment systems (Junadi, 2015).

Cashless Society

Definition of Cashless Society

The main concept of a cashless society is based on the transactions paid with electronic payment instruments (Jain and Jain, 2017). Even so, (Yaqub et.al., 2013) explained that a cashless society does not necessarily mean there is no cash transaction at all in the economic setting, instead, the number of cash-based transactions are at a minimum. Still in line with the previous definition, Daniel et.al. (2004) define a cashless society as one in which most of the transactions in the economy is not being conducted using cash.

The Indicators and Journey towards Cashless Society

Cash transactions in retail show the result to be 85% throughout nations (Thomas et.al., 2013), in which cash is most notably being used as an instrument of payment in low-value retail transactions (Yaqub et.al., 2013).

MasterCard with their research conducted by Thomas et.al. (2013), introduced a framework to measure the cashless journey throughout nations. This framework is using the methodology that focus on the value of consumer payments within nation. There are three indicators in this framework to measure the progress, which are. 1) Share, which measure the percentage of consumer payments value with the use of non-cash payment instrument. 2) Trajectory, which is a measurement of the cash-share shift from the consumers' payment value. 3) Readiness, which measure the degree by which a nation moves away from cash to non-cash payment instruments, measured by looking through the access to financial services; macro-economic and cultural factors; merchant scale and competition; and technology and infrastructure.

In Indonesia, the cashless journey began in 2007, where electronic money, which is the noncash payment instruments other than debit and credit card was first introduced (Wulandari et. al., 2016). Even so, according to a study conducted by Thomas et.al. (2013), the use of noncash payment instruments in Indonesia still indicated slow progress until 2013. The result of the study showed that Indonesia had a score of 31 out of 100, a trajectory score of 23 out of 100, and a readiness score of 24 out of 100. It makes Indonesia to be categorized at the inception level. In response to this, Central Bank of Indonesia created a campaign of Gerakan Nasional Non-Tunai (GNNT) on August 14, 2014 to encourage Indonesian citizen to use noncash payment instruments. To conclude, cashless society in Indonesia has not indicated rapid progress, therefore, a shortcut way to accelerate the journey is required, such as government actions and innovations (Antragama, 2017).

Generation Z

The term of generations will follow the born-year labelling by Oblinger and Oblinger (2005), which stated that the generation born after Generation Y or Millennial (1981-1995) is Generation Z or Post-Millennial (1995-2010). Prior to Generation Z (1995-2010), there are Baby Boomers (1945 - 1960), Generation X (1960 -1980), and Generation Y (1980 - 1995). Furthermore, there is also Generation Alpha (2010 - 2025), born after the Generation Z.

Broad Explanation and Behavioural Traits of Generation Z

Born in the digital world, Generation Z is dependent on the emergence of technologies, which influence how they interact, play, and learn (Grail Research, 2011). Technologies has truly become a critical part of their life, as a research conducted by Vision Critical (2016) showed that the behavioural traits of Generation Z are strongly influenced by their habits of keeping up with technology from an early age.

Behavioural Traits towards Technology

More than 33.3 percent of Generation Z said that they explore the usage of technology as much as possible, compared to Millennial on 27 percent. The usage of the internet, mobile devices, and social networking sites have made Generation Z more accessible, over different communication channels. Furthermore, according to a study, 79 percent of children who are kept away from social networking devices displayed symptoms of distress (Grail Research, 2011).

Behavioural Traits towards Media

Generation Z will prefer media that is simple to use and interactive, and allow them to multi-task on one platform (Grail Research, 2011). Generation Z is the first generation that engage and interact with screens such as desktop; laptop; tablets; and smartphone, and not thinking a living room TV as a preference for them to get into the news and entertainment.

Behavioural Traits towards Money

Talking about personal financial matters, Generation Z are just as confident as Millennial, where they believe they will be able to reach their financial freedom in the future. Although they are still learning about financial literacy, their psychological profile indicates a high level of confidence about their future; which in line with the use of digital technology, is already reflected in their attitude towards money. This in turn indicates a

willingness to save. A new generation of savers bodes well for the financial services industry.

The way for financial services companies to earn their trust is again, through the implementation of technology. In refer to a study by TD Bank, 3 percent of Generation Z said that mobile banking is most important, while 11 percent said online banking as so. Meanwhile, Generation X and Y see mobile banking only as a supplement to the offline banking on branches. According to this, Generation Z may be the first to refuse going to the bank, and prefer to do their financial matters through the mobile devices (Vision Critical, 2016).

Based on a study by GfK (2016) regarding the use of mobile payments, 53 percent of Generation Z has made transaction on purchasing goods via the mobile payment during the previous six months period, compared to Millennial that show the result of 37 percent and Generation X of 27 percent. This is a reflection of their behaviour, which is concerned about ease of connectivity, which thereby looking for the payment instruments that suits them effectively.

Behavioural Traits towards Shopping

When it comes to shopping, Generation Z have become online researchers, where they are not seeing offline stores visits as a necessary part of the shopping experience. Regarding its behaviour towards shopping, according to Accenture (2017), Generation Z is an impulsive buyer and more likely to make a purchase just because they want to buy something that they perceive as valuable, compared to Millennial. In addition, 58 percent of them said that they are willing to pay much more for on-time deliveries.

On the other hand, as the use of screen devices has become a vital part of their life, it affects Generation Z preference to shop online. In refer to Accenture (2017), more than 66.7 percent of Generation Z are interested on purchasing online because it is not time-consuming. Driven up by these conditions, the companies in business sectors need to make a strategy immediately to connect with Generation Z throughout mobile and internet.

Technology Adoption

According to Carr (1999), technology adoption is the condition of accepting the technology for individual or organizational use. Due to the advanced and dynamic growth of technologies, the level of consumer acceptance of technologies is depending on certain factors, as for instance, the availability of technology, convenience, consumers' need, and security (Lai, 2017). These factors come from several dimensions that differ from one another and depend on the models and theories of technology adoption that underlies it (Sharma and Mishra, 2015).

3. Discussion and Analysis

The extent by which the use of electronic payment instruments can support a cashless society among Generation Z in Bandung City will be studied through a technology adoption model, the latter which follows that of a previous study conducted by Junadi (2015).

In his paper entitled A Model of Factors Influencing Consumer's Intention to Use E-Payment System in Indonesia, Junadi (2015) used a model that applies UTAUT as a benchmark to determine the variables that directly affect behavioural intention in applying technology. The model was created by Venkatesh et.al. (2003) and comprise the following variables: Performance Expectancy (PE), Effort Expectancy (EE), and Social Influence (SI). Due to their importance, two other variables were added to this model, namely Culture (C) and Perceived Security (PS).

In this study, the model being used is a modification of that applied by Junadi (2015). The modification is made by putting a different variable, which is actual use of behavior, as the dependent variable, while shifting the intention to use variable as an intervening variable.

The Hypotheses

Hypothesis 1:

Performance expectancy has a positive relationship to behavioural intention to use electronic payment instruments among generation Z in Bandung City

Hypothesis 2:

Effort expectancy has a positive relationship to behavioural intention to use electronic payment instruments among generation Z in Bandung City

Hypothesis 3:

Social influence has positive relationship to behavioural intention to use electronic payment instruments among generation Z in Bandung City

Hypothesis 4:

Culture has positive relationship to behavioural intention to use electronic payment instruments among generation Z in Bandung City

Hypothesis 5:

Perceived security has positive relationship to behavioural intention to use electronic payment instruments among generation Z in Bandung City

Hypothesis 6:

Behavioural intention to use electronic payment instrument has positive relationship to actual use of electronic payment instruments among generation Z in Bandung City

Proposed Conceptual Framework

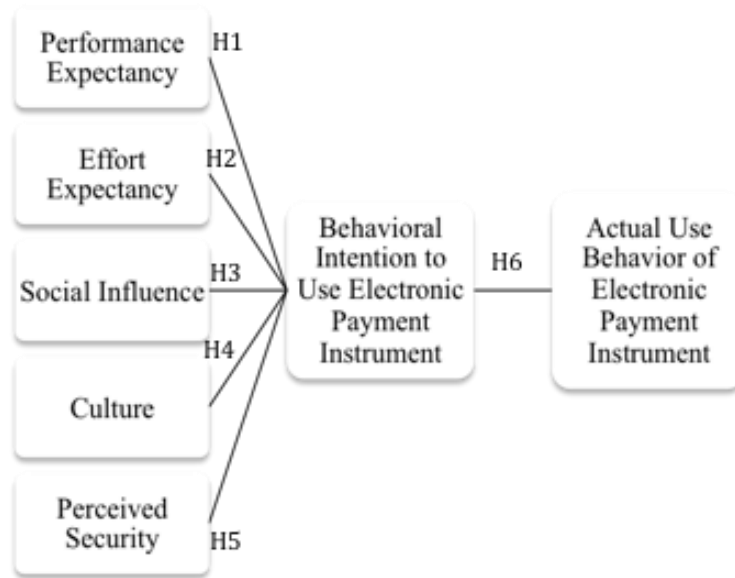


Figure 1 A Proposed Model to Measure Electronic Payment Instrument Adoption (Modified from: Junadi, 2015)

The use of electronic payment instruments among generation Z in Bandung City is the topic of this study, and will be assessed regarding the extent that is adopted by using a proposed model having five independent variables, which are performance expectancy; effort expectancy; social influence; culture; and perceived security. These independent variables lead to behavioural intention as an intervening variable and actual use as a dependent variable. Based on these variables, the hypotheses H1, H2, H3, H4, and H5 will be tested to determine whether there is a positive relationship between these variables and the intention to use electronic payment instruments, whereas H6 will be tested to determine whether there is a positive relationship between this variable and the actual use of electronic payment instruments. As it has been assessed using the proposed model, the extent that the use of electronic payment instruments is adopted will be determined as to how far it is on supporting the level of cashless society among generation Z in Bandung City.

4. Conclusion

The proposed model provided in this study investigates the extent that the use of electronic payment instrument is adopted among generation Z in Bandung City. The model is a modification of one applied by Junadi (2015), the latter which examines people's intention in using electronic payment instruments. The modification is made by putting a different variable, which is actual use of behavior, as the dependent variable, while shifting the intention to use variable as an intervening variable. Thereof, the proposed model of this study is combining the independent variables of the UTAUT model, which are performance expectancy; effort expectancy; and social influence, with the external variables, which are culture and perceived security. The two external variables will be measuring the behavioral traits of generation Z in Bandung City.

As part of a continuous study about cashless society, the results of this study, particularly in the proposed conceptual model will then be used and tested on our future study. Sub attributes from all of the factors in the conceptual model then will be created and tested via quantitative approach. The final results of the study then will be used as the main model to analyze the application of electronic payment instruments among Generation Z in other cities all around Indonesia.

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