ADOPTION OF E-PAYMENT TO SUPPORT SMALL MEDIUM ENTERPRISE PAYMENT SYSTEM: A CONCEPTUALISED MODEL

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Abstract: Payment of transactions towards a cashless society is a trend that cannot be avoided. All these things can happen because of cooperation, trust and human desire to be more practical from the community. Through this study, the researcher gets a new model from author analysis based on 23 previous literature synthesis and find out six independent variables that espouse adoption of e-payment to support small-medium enterprise payment system, that are performance expectancy, culture, acceptance of technology, social influence, security, and effort expectancy. The result of this study would be useful to understand about the adoption of e-payment to support the small-medium enterprise payment system.

Keywords: Cashless society, Small Medium Enterprises, Payment System, Technology Adoption, Electronic Payment Instruments

Introduction
Payment of transactions towards a cashless society is a trend that cannot be avoided, this can occur due to the revolution and the evolution that always happens, included in the payment system, from the beginning it is barter shifts to precious metals and then shifts to paper money. The acceptance of cashless society is dependent on the intrinsically valuable metals. All these things can occur because of cooperation, trust and human desire to be more practical from the community (Jakobsson & Yung, 1996).

Just as at this time in the third quarter of 2018, many developed countries in the world have switched from paper money to e-money to becoming cashless society, as well as Indonesia which rumoured to have begun to intensify the act of building a cashless society, showing an
increase in online sales in Indonesia by 40% annually (Ernst & Young, 2015). As well as the program created by the Indonesian government, Go Digital Vision 2020. The program targets Indonesia to be the largest digital economy country in Southeast Asia by achieving online business value of up to 130 billion US dollars with annual growth of 50% (Ministry of Foreign Affairs, 2017).

For now, many financial transactions use electronic money for daily life. It can be functioned to use toll road access, transportation system, parking access, fast food purchase, online transaction, and other payment in the merchant that have a partnership with electronic money company. There are Top 4 electronic money that mostly used by society, which surprisingly Go-Pay (27.1 %) with a short span of time managed to occupy the fourth position after Mandiri e-Money (43.8 %), BCA Flazz (39.1 %), and Telkomsel T -Cash (29.1 %) (JakPat, 2017).

Bank Indonesia Regulation (PBI) No 19/8 / PBI / 2017 that concerning to National Payment Gateway (NPG) where one card can be used anywhere with free or minimum cost (Bank of Indonesia, 2017). Also, the government’s seriousness to promote the non-cash movement is also seen through a regulation that requires all toll users to use electronic money for payment starting from October 1, 2017. The results can already be seen from now on, most toll road users have e-toll and start developing by using e-money to pay for parking. Aforementioned happens because there are currently many department stores that set policies to pay parking fees using e-money to speed up the queue and can increase the efficiency of time and labor.

For businesses, especially Small Medium Enterprise (SME), many market potentials can be developed through non-cash transactions. Among them are by expanding coverage and increasing loyalty by providing the best experience for consumers. Non-cash transactions can also improve business productivity by empowering businesses to track all transactions faster. With the high number of SME as much as 56.54 million in Indonesia and contributing around 60% of GDP, this will undoubtedly encourage Indonesia economic growth.

The purpose of this study was to look further at the reality that occurred and quantify the readiness of the community, especially SME in the enormous opportunity to be developed even better in the form of changing everyday transactions to a cashless society to improve consumer purchasing power.

**Literature Review**

**Definition of Small Medium Enterprises**
Small and medium enterprises are businesses that maintain revenues, assets or number of employees below a certain threshold. SMEs are non-subsidiary, independent firms which employ fewer than a given number of employees. Still in line with the previous definition (Tambunan, 2011), define Small and Medium Enterprises, as there are various agencies and law in Indonesia arise with the gauge for judgment of SMEs based on its asset, annual sales, and numbers of employees.

**Small and Medium Enterprises in Indonesia**
Small and medium enterprises currently play a leading role in economic growth in developing countries (Abbasov & Alizadia, 2016). In Indonesia, the latest data from the Ministry of Cooperatives and SMEs in 2013 showed that SMEs dominated more than 99% of businesses run in the country, and thus became the primary support of state revenues. This number
continues to grow in the following year, which is mostly spread in rural areas, indicating that every year SMEs have succeeded in triggering the entrepreneurial potential of villagers (Tambunan, 2006).

**Barriers in Small and Medium Enterprises**

Despite the critical role of SMEs in Indonesia's economic development, there are still other competitors that need to be faced even in their home countries – which are imported goods and services (Siringoringo et al., 2009). The competition is higher because of the Free Trade Agreement (FTA) between countries that leads to reducing barriers and increasing trade in goods and services between these countries.

Given the fact that SMEs in Indonesia have what is needed to compete with other imported goods and services, using a lot of the resources and human resources provided (Chaminade & Vang, 2008), this must be an absolute advantage for SMEs to stand out. In contrast, SMEs are still struggling with the presence of imported products because most of them have higher quality at relatively lower prices.

According to a previous study of SMEs conducted in Vietnam Swierczek & Ha (2003), found that SMEs faced several problems like lack of access to finance, technology, and equipment. Given the fact that there is only the view of SMEs that accept credit loans from banks and formal institutions. As stated by Beck (2007), it is influenced by the characteristics of SMEs that are more biased than large companies because of their complex risk calculations because they do not have audited financial statements that can represent company performance and profit projections. Also, the low number of SMEs that obtain credit loans from banks is also caused by technical and non-technical problems, namely, inadequate guarantees, complicated procedures, and limited information.

**Definition of Electronic Money**

Electronic money (e-money) is broadly defined as an electronic store of monetary value on a technical device that may be widely used for making payments to entities other than the e-money issuer. The device acts as a prepaid bearer instrument which does not necessarily involve bank accounts in transactions (Kabir et al., 2015).

**Electronic Money in Indonesia**

In Indonesia, electronic money is one of the things that's so imminent to the Indonesian people lifestyle. Over time, more and more activities are become more accessible by the existence of electronic money. Aforementioned can be proven based on data from Bank Indonesia which shows a significant increase in electronic money transaction every year (Bank Indonesia, 2016).

The rapid growth regarding the use of electronic money in Indonesia is also caused by the mandatory use of electronic money on toll roads, parking area, and the development of online transportation. Moreover, that also followed with the increasing of infrastructure that leads Indonesia to increased electronic money transaction (Bank Indonesia, 2016). That is a piece of good news because it can support Indonesia's movement to become one of the cashless society countries in the world.

**Definition of Cashless Society**

The principal concept of cashless society is based on transactions through electronic payment instruments (Jain and Jain, 2017). Nevertheless, people without cash do not always mean there
are no cash transactions at all, on the contrary, the number of cash-based transactions is minimized at the lowest level (Yaqub et al., 2013). From the definition preceding, cashless society can be defined as a condition of society where the use of cash has been minimized, and people mostly use non-cash payment instruments in conducting their transactions.

The Indicators and Journey Towards Cashless Society
Cash is generally used as a payment instrument in retail low-value transactions (Yaqub et al., 2013), where cash transactions for retail payments show 85% of results in all countries, equivalent to 60% of the total value of retail transactions (Thomas et al., 2013). Also, although there are many various options for non-cash payment instruments, for example, e-cash; credit card; debit card; and cellular payments, the actual use of cash as a payment instrument still dominates. The things to consider are, although cash may be convenient to use as an instrument of payment, it makes a lack of transparency in taxation funds.

MasterCard with their research conducted with Thomas et al. (2013), introducing a framework for measuring the cashless journey throughout the country. This framework applies a methodology that focuses on the value of consumer payments in the country. There are three indicators in this framework to measure progress:

a. Share: measure the percentage of the value of consumer payments with the use of non-cash payment instruments.

b. Trajectory: measure the shift of cash-share from the value of consumer payments.

c. Readiness: measure the current levels of a nation to move from cash to non-cash payment instruments, measured by looking through access to financial services; macro and cultural, economic factors; the scale of traders and competition; and technology and infrastructure.

Based on the framework and indicators described preceding, each country's cashless journey is being measured, and then the results will be classified into four levels, sorted from the lowest score to the highest. First is Inception Level (less than 40% of cashless transactions in the community), Second is Transition Level (40-60% of transactions without cash in the community), Third is Tipping Point Level (60-80% of transactions without cash in the community), and the last is Nearly Cashless Level (more than 80% of transactions without cash in the community).

According to the indicators proposed above, Indonesia is still categorized at the initial level (Thomas et al., 2013). Cashless journey in Indonesia began in 2007, where electronic money, non-cash payment instruments other than debit and credit cards were introduced (Wulandari et al., 2016). Even so, according to research from Thomas et al. (2013), the use of non-cash payment instruments in Indonesia still showed a low development until 2013. The results showed that Indonesia had a share value of 31 out of 100, a track score value 23 out of 100, and a readiness score of 24 out of 100, which made Indonesia still categorized as initial level. In response to this, the Indonesian Central Bank created a National Money Movement campaign on 14 August 2014 to encourage Indonesian citizens to use non-cash payment instruments. To conclude, people without money in Indonesia have not shown rapid progress; therefore, shortcuts to accelerate travel are needed, for example, innovation from providers and government action (Antragama, 2017).
Previous Studies

**Performance Expectancy**
Performance expectancy is defined as the degree to which an individual believes that using the system will help him or her to attain gains in job performance. The five constructs from the different models that pertain to performance expectancy are perceived usefulness, extrinsic motivation, job-fit, relative advantage, and outcome expectations (Venkatesh et al. 2003). Even when these constructs evolved in the literature, some authors recognized their similarities of constructs that pertain performance expectancy: usability and extrinsic motivation (Davis et al. 1989, 1992), usefulness and job fit (Thompson et al. 1991), usefulness and relative benefits (Davis et al. 1989; Moore and Benbasat 1991; Plouffe et al. 2001), usefulness and expectations of results (Compeau and Higgins 1995b; Davis et al. 1989), and expectations of work outcomes and outcomes (Compeau and Higgins 1995b). Construct expectations of performance in each model are the strongest predictors of intention and remain significant at all measurement points in both voluntary and mandatory settings.

**Culture**
Culture between one region to another might have a difference. Then the appropriate e-commerce payment systems in one country with the other may be different and depend on the culture and infrastructure in the country. According to (Keramati et al.19), consisting of several cultural factors that affect things such as knowledge of computer, internet access, use of the Internet, mobile phones, the region of residence and travel habits. In a study that is also conducted by (Keramati et al.19), the level of knowledge and use of the Internet affect the adoption of electronic payments. Meanwhile, according to (He & Mykytyn. 2007), culture influencing consumer’s intention to use the e-payment system by experience using computer and level of education.

**Acceptance of Technology**
Individual acceptance of technology by using intention or usage as a dependent variable (Compeau and Higgins 1995; Davis et al. 1989). While each of these streams makes essential and unique contributions to the literature on user acceptance of information technology, the theoretical models to be included in the present review, comparison, and synthesis employ intention and usage as the key dependent variable (Venkatesh et al. 2003)

**Social Influence**
Social Influence is defined as the individual’s internalization of the reference group’s subjective culture, and specific interpersonal agreements that the individual has made with others in specific social situations (Thompson et al. 1991). In another study that is conducted by Davis et al. (1991) said that social influence is the personal perception that most people who are important to him/her think he/she should or should not perform the behavior in question.

**Perceived Security**
Perceived security can be defined as the subjective likelihood with which customers think that their personal information such as personal and monetary will not be viewed, stored and manipulated during transit and storage by inappropriate parties in a manner consistent with their confident expectation (Guinalu, 2006). (Kalakota, 1997) also define perceived security as a threat that creates a circumstance, condition, or event with the potential to cause economic
hardship to data or network resources in the form of destruction, disclosures, modification of data, denial of service, and fraud, waste, and abuse.

**Previous Studies of Effort Expectancy**
According to Moore and Benbasat (1991), effort expectancy is the degree of which using innovation is perceived as being difficult to use. In another study that is conducted by (Thompson et al. 1991) said that effort expectancy is a degree to which a system is perceived as relatively difficult to use. Effort-oriented constructs are expected to be more salient in the early stages of new behavior when process issues represent hurdles to be overcome, and later become overshadowed by instrumentality concerns (Davis et al. 1989).

**Conceptual Framework**
The proposed conceptual framework for this study is presented in the figure below to illustrate the relationship between all variables.

![Conceptual Framework Diagram](image)

**Figure 1: Small-Medium Enterprise (SME) Readiness for Cashless State in Indonesia**
(Source: Author’s Analysis)

The adoption of e-payment to support small-medium enterprise payment system is the topic of this study and will be assessed regarding the previous literature synthesis by using a proposed model having six independent variables, which are performance expectancy; culture; acceptance of technology; social influence; perceived security and effort expectancy. These independent variables lead to behavioral intention as an intervening variable and actual use as a dependent variable. Based on these variables, the hypotheses H1, H2, H3, H4, H5, and H6 will be tested to determine whether there is a positive relationship between these variables and the intention to use 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 small medium enterprise payment system.
Discussion and Analysis
The extent by which adoption of electronic payment can support payment for Small Medium Enterprises, in this study, the model being used is an author analysis based on 23 previous literature synthesis. These six factors are considered to become independent variables that influence the adoption of e-payment to support small medium enterprises.

Hypothesis 1 (H1):
Performance expectancy has a positive relationship with the adoption of e-payment to support the small-medium enterprise payment system.

Hypothesis 2 (H2):
Culture has a positive relationship with the adoption of e-payment to support the small-medium enterprise payment system.

Hypothesis 3 (H3):
Acceptance of Technology has a positive relationship with the adoption of e-payment to support the small-medium enterprise payment system.

Hypothesis 4 (H4):
Social Influence has a positive relationship with the adoption of e-payment to support the small-medium enterprise payment system.

Hypothesis 5 (H5):
Perceived Security has a positive relationship with the adoption of e-payment to support the small-medium enterprise payment system.

Hypothesis 6 (H6):
Effort Expectancy has a positive relationship with the adoption of e-payment to support the small-medium enterprise payment system.

Conclusions
The proposed model provided in this study investigates and explain the adoption of e-payment to support the small-medium enterprise payment system. Based on the synthesis, we can see that the adoption of e-payment to support the small-medium enterprise payment system is influenced by six factors that are:

a. Performance Expectancy leads more to an individual believes that can be constructed by perceived usefulness, extrinsic motivation, job-fit, relative advantage, and outcome expectations.

b. Culture is the innate nature of the people who live in the area. The culture that denies change will be a huge obstacle to building a cashless society journey in Indonesia, and vice versa, if society is accessible to change, there is no doubt that changes in the state will become more comfortable and faster.

c. Acceptance of Technology is also a concern that intersects with the nature of society and the government itself. In terms of society, when they are aware of the benefits that they will get to help facilitate their daily activities. Then this cashless journey will be very well received, and it is also happening in another way, when people do not understand the benefits that are obtained, people will tend not to want to do change because it does not give any benefit for them. Likewise, from the government, when the
government issues a policy that applies to all people, it is inevitable that the community will follow the changes in the policy so that the benefits they receive are not reduced or lost. For example, e-toll as a means of payment in all toll roads in Indonesia, the society need to follow this policy, if not, they will not have the benefit of using toll roads in Indonesia.

d. Social Influence is the situation that happens around the community itself. An environment that supports and provides adequate socialization can increase the effort of E-money use.

e. Perceived security is a sense of security that is given when people using e-money, because it will be more difficult to lose the money, by the system also can track expenses and can minimize stealing and robbery crime to happen.

f. Effort Expectancy is the condition of the installation that supports the convenience of the community to have a transaction using e-money. That can be from merchants who help the continuation of e-money transactions itself, such as ATMs, Merchants that can be received e-money and interactive features in ATM that can increase intention of the community to come and use the ATM.

Future Research
As part of the continuous study of small and medium enterprises and a cashless society, the results of this study, especially in the proposed conceptual model, will then be used and examined in our future studies. Sub-attributes of all factors in the conceptual model will be tested through a quantitative and qualitative approach. In the future, this study can be used as further research that can be applied in other cities throughout Indonesia.

References


