FACTORS AFFECTING COMMUNITY INTEREST IN THE USE OF NON-CASH (DIGITAL) PAYMENTS

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Abstract. This study aims to analyze and provide empirical evidence regarding the effect of perceived usefulness and perceived ease of use of non-cash (digital) payments with the use attitude as an intervening variable. The population in this study was the Islamic Community of West Sumatra. The sampling method used in this research was a number of 100 West Sumatran people using quota sampling. Data processing with SmartPLS 3.0 shows the results show perceived benefit has a positive effect on non-cash payments (digital). The higher the perception of benefit, the higher the non-cash payment (digital). Perception of Ease has a positive effect on Non-Cash (Digital) Payments. The higher the perception of ease, the higher the non-cash payment (digital).And Perceptions of Benefit have a positive effect on User Attitudes. The higher the perception of Ease, the higher the user's attitude. User Attitudes have a positive effect on Non-Cash (Digital) Payments. The higher the perception of Ease, the higher the user's Attitude. User Attitudes have a positive effect on Non-Cash (Digital) Payments. The higher the perception of Ease, the higher the user's Attitude. User Attitudes have a positive effect on Non-Cash (Digital) Payments. The higher the User Attitude, the higher the use of Digital Payments. The indirect effect is greater than the direct effect, so it can be said that the User Attitude variable is perceived as an intervening variable between the Perception of Benefit and Perception of Ease with the Non-Cash Payment (Digital) variable.

Keywords: perception of benefit; perception of ease; usage attitude; non-cash payment (digital)

I. INTRODUCTION

The benefits of the current development of information and communication technology are greatly felt by the community. *Smartphones* and the internet are very popular technologies and are widely used today. People can communicate with each other, shop, find the latest news and much more just by using *smartphones* and the internet.

In line with current technological developments, payment patterns and systems in economic transactions continue to develop and change . Rapidly developing technology in the payment system is able to replace the role of cash (*currency*) as a more efficient and economical non-cash payment instrument [1]. Internal factors in the form of company heterogeneity and level of competition as well as external factors in the form of government regulations and technology standards have helped shape the innovation of payment from conventional methods to mobile payments [2].

Along with technological developments in the era of the industrial revolution 4.0, there are more and more developing types and forms of non-cash payment instruments. This developed in line with the government's policy through Bank Indonesia in encouraging transactions with non-cash payments or better known as digital/e-money payments [3] In Indonesia, there has been a development in the case of a transaction by way of non-cash in the last few years. This occurs because more and more centers of economic activity provide non-cash payment facilities. Noncash payment instruments that are currently developing, such as credit cards, debit cards, ATMs, are generally well known to the public. Bank Indonesia as the central bank has the authority to implement, give approval and license to the operation of payment systems, both cash and non- cash.

The debit card is one of the many non-cash instruments in circulation. Debit card is an electronic payment card issued by the Bank. This card serves as a substitute for payment with cash, where this card refers to the bank account balance of the account holder at the card issuing bank

Payment System is a system that includes arrangements, agreements, contracts/agreements, operational facilities, technical mechanisms, standards and procedures that form a framework used for the delivery, approval and receipt of payment instructions and fulfillment of payment obligations through the exchange of an economic value (money). between parties (individuals, banks, other institutions) both domestic and cross-border using payment instruments. In general, the payment system consists of several components in the form of policies, payment instruments/instruments, clearing and settlement mechanisms, institutions, supporting infrastructure and legal instruments. Some examples of payment instruments/ instruments that we are familiar with are money, debit cards. credit cards, traveller's checks, as well as electronic payment instruments such as internet banking, RTGS, credit transfers through clearing and so on.

In terms of the non-cash payment system, Bank Indonesia has an interest in ensuring that the non-cash payment system used by the public can run safely, efficiently and reliably. Therefore, the development of the use of non-cash payment instruments received serious





attention from Bank Indonesia, considering that the development of non-cash payments is expected to reduce the burden of using cash and increase economic efficiency in society. Although in terms of alternative technology, the use of non-cash payment instruments is very *feasible* to replace cash, but psychological, safety, comfort and public trust in cash are likely obstacles that still have to be faced in developing non-cash payment instruments.

During its development, the non-cash payment system was greatly influenced by advances in technological developments and changes in people's lifestyles. Currently, the development of non-cash payment instruments is progressing very rapidly in line with the development of payment system technology which has recently had a major impact on the parties involved in the system.

Interest is an individual's interest in an object so that the individual feels happy with the object's desire. This interest is influenced by (1) external factors, originating from outside the individual, such as the school environment, community environment, family environment (2) internal factors, originating from within the individual himself, such as age, gender, experience, feeling of being able [4]

Ease of use refers to the degree to which consumers believe that no more effort is required to use a system. The more frequently used system indicates that the known system is familiar to everyone, is easier to operate and easier to use by its users. Benefit is the extent to which someone believes that using a technology will improve their performance. Benefit is a strong determinant of the use of an information system and user behavior [5].

The central bank is a financial institution that plays an important role in the economy, where other banks place all of their funds, where the central bank is a very independent institution with the aim of achieving and maintaining the stability of the rupiah value and does not carry out intermediary activities as is done by banks in general.

The payment system has a very broad scope. This payment system exists because human needs in transactions are growing rapidly. This payment system does not stand alone but has ties to the monetary system, financial system stability, banking and also the economy. This payment system is managed by a special institution that will later regulate whether the system runs smoothly or not: [6].

Based on the Currency Law, the cash payment instrument is the prevailing currency in Indonesia, namely the Rupiah, which consists of coins and paper. The use of currency has constraints in terms of efficiency. This can happen because the cost of procurement and management (*cash handling*) *is* fairly expensive. In addition, it takes into account inefficiencies in payment times that take quite a long time and invites risks [6].

Non-cash payment instruments are classified into 2 groups, namely payment instruments for *credit transfers* and payment instruments for *debit transfers*.

Table 1. Example of Comparison of Payment Instruments

Credit transfer			Debit Transfer
Paper Based	Card Based	Electronic Based	Papaer Based
	1. ATM card	1. Transfer Credit via RTGS and	1. Check
Credit Note (<i>before</i>	2. ATM card and Discharge	SKNBI	2. Bilyet Giro
applied SKNBI)	3. Credit Card	2. Based server	
	4. Prepaid Card (e- money)	e-money	3. Debit Note

Source: [7]

A debit card is a plastic card that functions as a noncash payment tool, where the cash in the cardholder's account will automatically decrease when the card holder uses it to shop. Some of the advantages that users get by using this debit card are as follows (1) As mobile savings (2) Practical (3) No interest or penalties (4) There are no monthly installments (5) Can make large transactions as long as it does not exceed savings balance (6) no debt (7) easier to get cash. It does not rule out if the debit card also has several shortcomings, namely (1) The use of a debit card cannot shop or make transactions that exceed the balance in the account (2) Minimal promos or offers from the debit card issuing bank or *merchants* working with the bank (3) Vulnerable to abuse, if the card is lost or stolen, it must be blocked immediately [8].

Perception of Benefit (X1)

Perception of expediency (*perceived usefulness*) is defined as the extent to which a person believes that using a technology will increase the work [9]. From this definition, it can be seen that perceived usefulness is a belief about the decision-making process. Thus if someone believes that information systems are useful, he will use them.

Perception of expediency (perceived usefulness) is a condition where people believe that the use of a particular technology will improve its performance. [10] explains that the perception of usefulness is a perception that is defined as a measure in which the use of a technology is believed to bring benefits to those who use it. Measurement construct usefulness (usefulness) by [11] consisting of: 1). Make work faster (work more quickly, 2). Useful (useful), 3). Increase productivity (increase productivity), 4). Increase the effectiveness (enchance effectiveness), and 5). Developing job performance (improve job performance). Several previous studies have shown that perceived usefulness has a positive effect on individual interest in using *e-commerce*. including research conducted by [12] . Perception of usefulness (Perceived usefulness) is defined as the degree to which a person believes that using a particular system can





meni ngkatkan performance [13]. Perceived usefulness is defined as the degree to which a person believes that using a particular system can improve performance. Previous research has shown that perceived usefulness has a positive effect on usage behavior through interest in using *e*-commerce, such as research conducted by [14].

Perceived Ease (X2)

Perceived ease of use or perceived ease of use is defined as the extent to which someone believes that using a technology will be free of effort. If someone believes that information systems are easy to use then he will use them. Referring to [15] which states that there are factors that influence the perception of ease of use, namely feeling the ease of using technology in order to carry out the desired activity, being able to interact clearly and understandably, technology that is easy to use, interacting with technology information does not require great effort. According to [16] this perception of convenience will have an impact on behavior, namely the higher a person's perception of the ease of using the system, the higher the level of information technology utilization. A system that is frequently used shows that the system is better known, easier to operate, and easier to use by its users. Several previous studies have shown that perceived ease has a positive effect on individual interest in using *e-commerce*, including research conducted by [17]), [16], [18], [19].

Perceived ease (*Perceived ease of use*) is defined [20] is how much perceived computer technology is relatively easy to understand and use. Individual perceptions related to the ease of using computers (perceived ease of use) are the level at which individuals believe that using a particular system will be error free. This perception will then have an impact on behavior, namely the higher a person's perception of the ease of using the system, the higher the level of utilization of information technology (Anandarajan, et al. 2000). Meanwhile, according to [21] the notion of perceived ease of use defined as the degree to which a person believes that the use of IT is easy and does not require hard effort from the user. This concept includes the clarity of the purpose of using IT and the ease of using the system for the purposes according to the wishes of the user. In TAM, the perception factor of the ease of using technology and the perception of the usefulness of a technology are related to one's attitude towards using the technology. The attitude towards using something is the attitude of liking or disliking the use of a product. The like or dislike of a product can be used to predict the behavior of a person's intention to use a product or not use it. Previous research shows that perceived ease of use has a positive effect on usage behavior through interest in using *e-commerce*, such as research conducted by [22].

Attitude to Use (Z)

According [23] to analyze user behavior regarding the adoption of innovative technology, several behavioral decision theories and models have been deliberately developed by some scientific literature over the last four decades.

These attitude models are based on the benefits provided by information systems, removing negative traits from their use. These models are based on explaining the characteristics of the information process that lead to acceptance/rejection of a technological innovation [24]. [25] defines that attitude explains one's acceptance of information technology. A person's attitude consists of elements of cognitive/perspective (*cognitive*), affective (*affective*), and components related to behavior (*behavioral components*).

Non-cash Payment (Digital) (Y)

Non-cash payment is a digital payment system without using physical money (paper or metal), which was introduced to the public in the 1990s. In Indonesia, this cashless-payment system was not designed to replace the cash payment system, but complemented one another [26].

The use of banknotes and coins in payment transactions is actually much more practical than the barter system or the *commodity currency* system used by ancient humans. But in line with society's needs and technological developments, the use of cash is then considered less practical and safe [27]. The constraints faced by cash, such as its perishable physique and its various denominations, contributed to the emergence of innovations in the payment system that gave birth to non-cash payment instruments.

The non-cash payment instruments or instruments that are legally applicable in the country are paper-based, card-based and electronic-based instruments or applications. The use of non-cash instruments is required to obtain permission and authorization from Bank Indonesia as the only payment system regulator.

The following are details of the three types of noncash payment instruments in the country [28] :

Paper Based (Paper Based)

Consists of Check, BG, Money Order, Debit Note, Credit Note or the like. The payment instrument mechanism uses the clearing system at Bank Indonesia, namely:

- 1. Manual clearing which came into effect in 1909 (DJB).
- 2. Clearing Automation System whose implementation began in 1990.

Card Based (Card Based)

The card instrument, which is officially referred to as the Card-Based Payment Instrument (APMK), was introduced in the early 1990s. In its operations, APMK involves four institutions, namely Principals, Issuers, Switching Companies, and Personalization Companies. APMK consists of two types of cards, namely:

- 1. A credit card that allows the card issuer to first bail out transaction payments made by its customers.
- 2. Debit/ATM cards provided as additional facilities provided by banks for saving customers.

Electronic Based (Electronic Based). Namely the transfer of funds electronically (*credit transfer*) by using:



- 1. The Jakarta Electronic Clearing System in effect from 1998 to 2005.
- 2. BI RTGS system which started in 2000.
- 3. Bank Indonesia National Clearing System (SKNBI), which was implemented in 2005.

Electronic Bank Service (Electronic Banking/Ebanking) which was developed into *Mobile Banking*, starting in 1998. *Electronic Money* or Electronic Money (Unique/Emoney), starting in 2007. This Electronic or Unique Money has two types, namely:

- a. Unique Server Based, generally implemented in the form of mobile applications.
- b. Chip-Based unique, made in the form of a plastic card that is equipped with a security system chips (*chips*).

Both Unique types are being heavily promoted. Its use is easily found in many modern markets, gas stations, toll road gates, urban transportation, parking services and many more.

II. RESEARCH METHODS

The method used is explanatory survey. Descriptive data collection was carried out on 100 people of West Sumatra, the sampling technique used was proportional random sampling. Data analysis was carried out by several sources, both secondary data and primary data, such as data combining answers to each question in the questionnaire, which revealed questions about the effect of perceived usefulness and perceived ease of use on the use of non-cash (digital) payments with the Attitude of Use as an intervening variable . Structural analysis tools using SmartPLS 3.0. The reason for choosing this method is because of its ability to measure constructs indirectly through indicators and simultaneously analyze indicator variables and latent variables, and the relationship between latent variable indicators, as well as the relationships between variables and other variables, along with the involvement of measurement errors. The results of this study are expected to provide an overview of the clarity of the relationship and the influence of variables that are very useful to explore in detail the factors d what t increase community use of non-cash payments (digital) as a means of payment in order to provide a comprehensive understanding.

III. RESULTS AND DISCUSSION

A. Evaluation of *Measurement (Outer)* Model1. Validity test

An indicator declared invalid if it has a *loading factor* on top of 0.5 to construct the destination. The following is a diagram of the *loading factor* for each indicator in the research model:



Figure 1. Loading Factor Value

Validity testing for reflective indicators uses a correlation between the item scores and the construct scores. Measurements with reflective indicators indicate a change in an indicator in a construct if other indicators of the same construct change (or are removed from the model). Reflective indicators are suitable for measuring perception, so this study uses reflective indicators. Figure 1 shows that the loading *factor* value above the suggested value that is equal to 0,5 . The small starting value is 0.596 for the X2.2 indicator . It means that the indicators used in this study are valid or have met the *convergent validity*. Another method to see *discriminant validity* is to look at the *square root of average variance extracted* (AVE) value. The suggested value is above 0,5 . The following are the AVE values in this study:



Figure 2. Average Variance Extracted (AVE)

Figure 2 gives the AVE value above 0,5 for all constructs contained in the research model. The lowest AVE value is 0.533 in the X1 construct (perceived usefulness).

2. Reliability Test

Reliability test is done by looking at the *composite reliability* value of the indicator block that measures the construct. Results *composite reliability* will show a satisfactory value if above 0, 7. Here is the *composite reliability* value for the output:

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Figure 3. Composite Reliability

Figure 3 shows that the *composite reliability* for all constructs is above 0, 7 which show that all constructs in the model estimated meet the criteria of *discriminant validity*. Value *composite reliability* ya ng lowest amounted to 0.819 on the construct of X2 (Perceived Ease). Reliability test can also be strengthened with *Cronbach's Alpha* where the SmartPLS Version 3 output gives the following results:



Figure 4. Cronbach's Alpha

The recommended values are above 0.6 and the table above shows that the *Cronbach's Alpha* values for all constructs are above 0.6. The lowest value is 0.712 (Z).

B. Structural Model Testing (Inner Model)

After the estimated model meets the *Outer Model* criteria, *the* next step is testing the structural model (*Inner model*). Here are the R- *Square* values of the construct:





Figure 5 gives the value of 23, 1 % to construct Y which means that Z is able to shortly explain the variance of Y 9.7 %. Hypothesis testing is as follows:



Figure 6. Hypothesis Testing

Figure 6 shows that the relationship between X1 with Y is positive but *not* significant with T-statistic of 1.429 (<1, 96). Thus the H1 hypothesis in this study which states that 'Perceptions of Benefit have an effect on Non-Cash (Digital) Payments ' is rejected. Figure 6 shows that the relationship between X2 and Y is positive but not significant with T-statistic of 0.168 (<1, 96). Thus the H2 hypothesis in this study which states that 'Perceived Ease has an effect on Non-Cash (Digital) Payments ' is rejected. Figure 6 shows that the relationship between X1 with Z is positive significantly with T-statistic of 2.690 (> 1, 96). Thus, the hypothesis H3 in this study which states that ' perceived usefulness affects user attitudes' is accepted.

Figure 6 shows that the relationship between X2 with Z is positive but not significant with T-statistic of 0.797 (<1, 96). Thus the hypothesis H4 in this study which states that 'Perception of Ease has an effect on User Attitudes' is rejected. Figure 6 shows that the relationship between the Z and Y are positively significantly with T-statistic of 3.624 (> 1, 96). Thus the hypothesis H5 in this study which states that 'User Attitudes affect Non-Cash (Digital) Payments ' is accepted.

IV. CONCLUSION

Based on the results of the analysis and discussion that has been presented, it can be concluded, Perceptions of Benefit have a positive effect on Non-Cash (Digital) Payments . Increasingly higher perception of usefulness it will increase the payment of non Cash (Digital). Perception of Ease has a positive effect on Non-Cash (Digital) Payments . Increasingly higher perception Ease then it will increase the payment of non Cash (Digital). And Perceptions of Benefit have a positive effect on User Attitudes . Increasingly higher perception of usefulness it will improve the attitude of users. Then the Ease of Perception has a positive effect on User Attitudes . Increasingly higher perception Ease then it will increase the attitude of users.





User Attitudes have a positive effect on Non-Cash (Digital) Payments . The higher the User Attitude, the higher the use of Digital Payments. The indirect effect is greater than the direct effect, so it can be said that the User Attitude variable is perceived as an intervening variable between the Perception of Benefit and Perception of Ease with the Non-Cash Payment (Digital) variable .

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