

# Determinants of the Use of Non-Cash Transactions by Micro, Small and Medium Enterprises (MSMEs) in Mandalika SEZs, Central Lombok Regency, West Nusa Tenggara, Indonesia An Application of The UTAUT Mod

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# Determinants of the Use of Non-Cash Transactions by Micro, Small, and Medium Enterprises (MSMEs) in Mandalika SEZs, Central Lombok Regency, West Nusa Tenggara, Indonesia An Application of the UTAUT Model (Unified Theory of Acceptance and Use of Technology)

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## Abstract

The role of Micro, Small, and Medium Enterprises (MSMEs) is very important for the Indonesian economy, this can be seen from its contribution to GDP of 61.97% of the total national GDP or equivalent to Rp. 8,500 trillion, absorbs a large number of workers, namely 97% of the absorption capacity of the business world, and can collect up to 60.4% of total investment in 2020 (Kementerian Koperasi dan UMKM, 2021). To be able to increase the role of MSMEs, of course, MSMEs must be more adaptive in anticipating economic digitalization, this is because digitalization will change traditional transactions to become modern and more efficient. Therefore, it is necessary to know the determination of the use of Non-Cash Transactions in Micro, Small and Medium Enterprises (MSMEs), related to this, this study aims to analyze and prove that the variable performance expectancy, social influence, effort expectancy, facilitating conditions and behavioral intention variables are the determinant variables that affect the use of non-cash transactions for MSME actors in the Mandalika SEZs area based on the UTAUT (Unified Theory of Acceptance and Use of Technology) model.

The type of research used is explanatory research. This research was conducted on MSME actors who are in the Mandalika SEZs which includes 5 villages namely Sengkol, Kuta, Mertak, Sukadana, and Gerupuk Villages. The data collection method used is a survey sample. Data collection techniques through the stages of literature study, observation, and direct interviews with respondents guided by a list of questions or questionnaires prepared by researchers. Based on the results of this study it is known that the variables of business expectations and intention to use have a significant effect on the use of non-cash transactions on MSME actors in Mandalika SEZs, while performance expectations, social influence, business expectations, facility conditions, and intention to use, have no significant effect, so it is suggested there is a need for continuous dissemination by Bank Indonesia to be able to change the behavior of MSMEs related to the use of non-cash transactions so that MSMEs can more quickly adopt this new technology. Bank Indonesia together with the Ministry of informatics should be able to provide better infrastructure to facilitate the use of non-cash transactions.

**Keywords:** MSMEs, Non Cash, UTAUT

## 1. Background

MSME is one of the most important economic actors in the Indonesian economy, this is stated in the 1945 Constitution article 33 paragraph 4, namely MSME is part of the national economy that has an independent vision and has great potential

to improve people's welfare. The role of MSMEs can be seen from their contribution to economic performance where their contribution to GDP is 61.97% of the total national GDP or equivalent to Rp. 8,500 trillion, absorbs a large number of workers, namely 97% of the absorption capacity of the business world and can collect up to 60.4% of total investment in 2020 (Kementerian Koperasi dan UMKM, 2021). The importance of MSMEs for the national economy was also stated by Tulus Tambunan (2012:18) because: 1). The number of MSMEs is very large and spread in urban and rural areas and even in remote corners. MSMEs are classified as very labor intensive, have the potential for great growth in employment opportunities and increased income. 3). There are many MSMEs in the agricultural sector which indirectly support development. 4). MSMEs help in accommodating many workers who have low levels of education. 5). In conditions of economic crisis, MSMEs were able to survive, as happened in 1997/1998. 6). Becoming the starting point for investment mobility in rural areas as well as a place for increasing entrepreneurial capacity. 7) Becoming a tool to divert consumption expenditures of rural residents into savings. 8). MSMEs are able to provide goods that are needed relatively inexpensively. 9). Through various types of investment and investment, MSMEs are able and quickly adapt in the progress of the times. 10). Has a high degree of flexibility.

To be able to increase the role of MSMEs, of course, MSMEs must be more adaptive in anticipating economic digitalization, this is because digitalization will change traditional transactions to become modern and more efficient. Musafak (2012) explains the Digital Economy version of the Encarta Dictionary is "Business transactions on the Internet: the marketplace that exists on the Internet". Understanding the Digital Economy focuses more on transactions and markets that occur in the internet world. Its meaning is more prominent in the application of information technology in the economic field. The digital economy is an economic sector that includes goods and services where the development of production, sales or supply depends on digital technology so that the impact of economic digitalization will increase economic activity.

The impact of the digital era can be seen from people's behavior which shows social changes in the economic ecosystem. In Law number 11 of 2008 which discusses information and electronic transactions, explains that there are changes in people's behavior and human civilization globally as a result of innovation and the use of ICT. Demands for economic and financial services that are fast, cheap and safe are getting stronger in the digital era. This change in behavior changes the pattern of interaction between economic actors, both as consumers and factors of production (Bank Indonesia Blueprint SPI 2025, 2019). One of the changes in behavior shown by the community is the transfer of the transaction model used from cash transactions to non-cash transactions so that there is a tendency for changes in the payment system. A payment system, by definition, is a system that includes a set of rules, institutions and mechanisms used to carry out transfers of funds, in order to fulfill an obligation arising from an economic activity. The Payment System was born at the same time as the concept of 'money' as a medium of change or intermediary in goods, services and financial transactions was born. In principle, the payment system has 3 stages of processing, namely authorization, clearing and settlement (BI, 2020).

The Payment System continues to experience changes in line with changes in money with 3 locomotive elements, namely technological developments and business models, community traditions, and monetary authority policies. Broadly speaking, the payment system is divided into two, namely cash payment systems and non-cash payment systems. The fundamental difference lies in the instruments used. The cash payment system uses currency (notes and coins) as a means of payment. Whereas in the non-cash payment system, the instruments used are in the form of card payment instruments (APMK), checks, giro bills, debit notes, as well as electronic money or e-money (card based and server based).

The scope of the non-cash payment system is grouped into 2 types of transactions, namely wholesale transactions and retail transactions. Large value transactions have the characteristics of transactions that are important and urgent, including interbank transactions and transactions on financial markets. processing large value transaction activities, namely transactions of at least IDR 1 billion, namely Bank Indonesia Real Time Gross Settlement (BI-RTGS) and Bank Indonesia Scripless Securities Settlement System (BI-SSSS). Meanwhile, retail transactions include transactions between individuals with a value of less than IDR 1 billion with the characteristics of small value and relatively high frequency. The infrastructure used to process this transaction activity is the Sistem Kliring Nasional Bank Indonesia (SKNBI) (BI, 2020). A non-cash payment system (cashless payment system) is an economic activity in which buying and selling of goods and services is carried out without using physical cash (Paul and Friday, 2012) but using an electronic payment system (e-payment), one of which is using a check. Electronic payments are part of non-cash payments that use electronic money (e-money) as a medium of exchange without physical contact from the transacting parties (Snellman, Vesala and Humphrey, 2001). Thus electronic payments are payments resulting from the use of debit cards, credit cards, mobile wallets, and automatic teller machines (ATM) cards (Oginni et al, 2013). In addition, check payments are considered non-cash payments (Tee and Ong, 2016) because payment media uses checks in transactions not made in cash.

The importance of digitalization of the economy has drawn the attention of researchers to examine factors that can increase the flow of non-cash payment system use as a result of a study conducted by Brown et.al. [2003], Chian-Son Yu

(2012) related to the use of mobile banking, as well as that carried out by Mutiara Indah et al (2018) showed that the performance expectancy variable and social influence variable have a positive effect on the intention to use (behavioural intention) for Go-Pay users in Padang City while the effort expectancy variable has no effect. For the facilitating condition variable and the behavioral intention variable, it has a positive effect on the actual user behavior (use behavior) of Go-Pay users in Padang City. Meanwhile, the research results of Rianan et al (2018) show that the effect of PE (Performance Expectancy) on BI (Behavioral Intentions), SI (Social Influence) on BI, BI on UB (Use Behavior) and FC (Facilitating Conditions) on UB is significant. The results of this study are based on the Unified Theory of Acceptance and Use of Technology (UTAUT) model approach.

This research complements the study conducted by Mutiara Indah, Rianan et al which was carried out on MSMEs in the Mandalika SEZs. This study is important because SEZsMandalika is one of the leading tourism destinations in Indonesia which is located in Central Lombok Regency, NTB Province, SEZsMandalika has held many international events which have caused tourist visits to increase. Tourists visiting the area tend to make transactions using non-cash transactions. Apart from that, the era of globalization and economic digitization has also opened up opportunities for MSMEs to expand their market because products sold from the offline system can be sold through the online system. Thus it is very clear that adaptation in the use of payment systems is needed to increase trade transactions. This research is also important to do considering according to a survey conducted by the Mandiri Institute that 51% of MSMEs do not use a non-cash payment system. (<https://www.medcom.id/ekonomi/bisnis/PNg6289K>).

Based on the background, the formulation of the problem in this study is:

Are performance expectancy, social influence, effort expectancy, facilitating conditions, and behavioral intention variables as determinants that influence the use of non-cash transactions for MSMEs actors in Mandalika SEZs?

## 2. Literature Review

### 2.1. Theoretical Foundation

#### 2.1.1. Definition of MSMEs

Based on Law Number 20 of 2008 article 1 concerning MSMEs, Micro, Small and Medium Enterprises are:

- 1) Micro business is a productive business owned by a person or individual or individual business entity that meets the criteria for micro business as stipulated in this Law.
- 2) Small business is a productive economic enterprise that stands alone, which is not a subsidiary or not a branch of a company that is owned, controlled, or becomes part, either directly or indirectly, of a medium or large business that meets the criteria for small business as referred to in this Law.
- 3) Medium business is a productive economic business that stands alone, which is carried out by individuals or business entities that are not subsidiaries or not branches of companies that are owned, controlled, or become a part, either directly or indirectly, with small businesses or large businesses with a total capital net assets or annual sales proceeds as stipulated in this Law.

Based on wealth and sales proceeds, according to Law No. 20 of 2008 article 6, namely as follows:

- 1) The criteria for micro businesses are as follows:
  - a) Have a net worth of at most Rp. 50,000,000 (fifty million rupiah) excluding land and buildings for business premises.
  - b) Have annual sales results of at most Rp. 300,000,000 (three queen million rupiah).
- 2) The criteria for small businesses are as follows:
  - a) Have a net worth of more than IDR 50,000,000 (fifty million rupiah) up to a maximum of IDR 500,000,000 (five hundred million rupiah) excluding land and buildings for business premises.
  - b) Have annual sales of more than IDR 300,000,000 (three hundred million rupiah) up to a maximum of IDR. 2,500,000,000 (two billion five hundred million rupiah).
- 3) Medium business criteria are as follows:
  - a) Have a net worth of more than IDR 500,000,000 (five hundred million rupiah) excluding land and buildings for business premises.
  - b) Have annual sales proceeds of more than IDR 2,500,000,000 (two billion five hundred million rupiahs) up to a maximum of IDR 50,000,000,000 (fifty billion rupiahs).



#### 2.1.1.1. Characteristics of SMEs

The characteristics of SMEs are the inherent nature of a business activity or business actors in carrying out their business. According to the World Bank, MSMEs can be divided into 3 types including:

- 1) micro business (10 employees);
- 2) Small business (30 employees); and
- 3) Medium business (300 employees).

Meanwhile, from a business perspective, MSMEs are classified into 4 groups, including:

- 1) MSMEs in the informal sector, for example, street vendors.
- 2) Micro MSMEs are MSMEs with the ability of artisans but lack the entrepreneurial spirit to develop their business.
- 3) Dynamic Small Business is a group of MSMEs that are capable of entrepreneurship by establishing partnerships.
- 4) Fast Moving Enterprises are MSMEs that have capable entrepreneurship and are ready to transform into big businesses.

#### 2.1.2. Payment System

##### 2.1.2.1. Definition of Payment System

According to Pohan (2011) The payment system is a system that performs contractual arrangements, operating facilities and technical mechanisms used for delivery, validation, and receipt of payment instructions, as well as fulfillment of payment obligations collected through the exchange of "value" between individuals, banks and other institutions. both domestically and between countries (cross border). Pohan's opinion is no different from BI(<https://www.bi.go.id/id/fungsi-utama/sistem-pembayaran>) Payment System is a system that includes a set of rules, institutions and mechanisms used to carry out transfers of funds, in order to fulfill an obligation arising from an economic activity. The Payment System was born at the same time as the concept of 'money' as a medium of change or intermediary in goods, services and financial transactions was born. In principle, the payment system has 3 processing stages, namely authorization, clearing, and settlement.

Technological advances and the need for practical and inexpensive means of payment, in several countries electronic payment products known as electronic money (e-money) have begun to be developed, which have different characteristics from other electronic payments, because every payment is made using e-money. money does not always require an authorization process and is online directly with the customer's account at the bank (when making payments it is not charged to the customer's account at the bank). E-money is a stored value product where a certain amount of money (monetary value) has been recorded in the means of payment used (prepaid)([www.bi.go.id](http://www.bi.go.id)).

##### 2.1.2.2. Payment Instruments

The instrument or means of payment is the medium used in payment. Current payment instruments can be classified into cash and non-cash. Cash payment instruments are currency consisting of banknotes and coins that we are familiar with so far. Meanwhile, non-cash payment systems have been introduced to retail transactions since the 1990s. This system is not a substitute for a cash payment system, but complements one another. The non-cash payment system in its use involves banking services as an effort to collect public funds as it should provide payment traffic services that can assist customers' economic needs (Mulyati 2003). Non-cash payment instruments, can be subdivided into non-cash payment instruments with paper media or commonly called paper-based instruments, such as: checks, demand deposits, money orders, and others as well as non-cash payment instruments with card media or commonly called card-based instruments such as credit cards, debit cards, ATM cards and others. With the development of technology, currently various payment instruments that use microchips technology are also being developed, known as electronic money (e-money) (BI, 2020).

##### 2.1.2.3. Type of Payment System

In daily practice, there are two types of payment systems, namely cash payments and non-cash payments([www.bi.go.id](http://www.bi.go.id)).

###### a. Cash Payment

Cash payments can be made using money, either coins or banknotes. In circulation, money is available in various types of denominations to make transactions easier. Cash is very important, both in terms of its availability, supply, management, and distribution, demanding the presence of a capable institution. In many countries, the institution that has a role in regulating the money supply is the central bank.

###### b. Non-cash Payment

The non-cash payment system is a system in which there are regulations, contracts, technicians and facilities as a means for the delivery process, validation and payment instructions that help smooth the exchange of "value" between individuals and other parties such as domestic and international banks and institutions (Mangani, 2009). According to Bank Indonesia (2004), non-cash payment instruments can be divided into three categories based on the physical tools used, namely: paper-based or paper-based instruments, card-based instruments, and paper-based instruments. electronics or electronic based instruments.

Non-cash payment instruments can be classified into two groups, namely payment instruments for credit transfers and payment instruments for debit transfers. Banks and non-bank institutions that implement non-cash payment systems also present non-cash transaction tools themselves, namely: credit cards and Account Based Cards (ATM/Debit Cards).

#### 2.1.2.4. Electronic Money (E-Money)

Electronic money (e-money) is a stored value or prepaid card product in which the amount of money is contained in an electronic card or also known as electronic equipment. This money can be obtained electronically because the process involves depositing a certain amount of cash at the bank and then the bank transfers the money using a fund transfer system or electronic money to the owner. After that the owner will be able to make buying and selling transactions with the card. Where the amount of the balance on the card can be reduced or increased. Reduced area where the owner purchases goods and then the balance increases if the owner tops up or top up the balance (Bank for International Settlement/BIS, 1996).

#### 2.1.3. UTAUT Model (Unified Theory of Acceptance And Use of Technologi)

The UTAUT theory model was developed by Venkatesh, UTAUT aims to explain a person's interest in using or using an information technology system and subsequent user behavior. This theory is formulated with four kinds of core determinants of interest in using and behavior in using information technology systems. The four core determinants in question are first, performance expectancy, namely the extent to which individuals believe that using the system will help them achieve results in job performance. Second, the expectation of effort (Effort Expectancy), namely the extent to which the level of ease associated with the use of the system. Third, social influence, namely the extent to which an individual's perception of other people's beliefs in using the new system. Fourth, facilitating conditions, namely the extent to which an individual believes that organizational and technical infrastructure must exist to support the use of the system (Venkatesh et. al, 2003). UTAUT assumes that beliefs about the benefits of usability and ease of use are the main determining factors for the adoption of information technology in an organization. In UTAUT there are determinants that act as a basis for attitudes toward using a particular system, which will ultimately determine the intention to use and then produce real usage behavior (Mahendra and Affandy, 2013).

The five types of core determinants of interest in using and behavior in using information technology systems are as follows:

1. Performance Expectancy

Performance expectation is a person's belief that doing a job will be helped if using a system. Jogiyanto (2007) defines performance expectations as how high a person believes that using the system will help him gain performance benefits at work. The higher a person's trust in using the system, the more this system will be used.

2. Effort Expectancy

Effort Expectancy defined as the level of ease (ease of use) associated with the use of a system. If the system is easy to use, then the effort is not too high and vice versa if a system is difficult to use, it requires a lot of effort to use it (Jogiyanto, 2007). The ease of using information technology will create a feeling in a person that the system has uses and therefore creates a feeling of comfort when working with it (Priyo,2016).

3. FacilitatingConditions

Facilitating Conditions is defined as the extent to which a person believes that the organizational and technical infrastructure is available to support the system (Jogiyanto, 2007). According to Fiddin, Kamaliah, and Hardi (2013) argue, that conditions that facilitate users are the level of individual confidence that the organizational infrastructure as well as technical and non-technical support from experts in system operation in an organization is sufficient for the use of the system so as to encourage individual interest in using the system. existing in the organization. With the conditions that facilitate will increase the use of a system.

4. Social Influence

Social influence is the extent to which an individual perceives the interests that are trusted by other people who will influence him using the new system (Jogiyanto, 2007). According to Davis et al., (2000), social influence has an impact on individual behavior through three mechanisms, namely compliance, internalization, and identification. It can be

concluded that the more influence exerted by an environment on potential users of information technology to use a new information technology, the greater the personal interest that arises from the prospective users in using information technology because of the strong influence from the surrounding environment. Herbert Kelman (1958) identified three broad varieties of social factors:

- a. Compliance is when people appear to agree with others, but actually disagree and agree with their own opinions.
- b. Identification is when people are influenced by someone they like and respect, such as a famous celebrity or a favorite player.
- c. Internalization is when people accept beliefs or behaviors and agree both publicly and privately.

#### 5. Behavior Intentions

The high level of intention to use (behavioural intention) will affect the level of use of a system (Venkatesh et al., 2003). Behavioral intention means a person's intention or desire to use a system in the future. Someone will decide to use a system if there is a desire in him to use the system.

### 2.2. Previously Study

Importance digitization economy put attention researcher for examine possible factors Upgrade current using a non- cash payment system like results a study conducted by Brown et.al. (2003). Brown surveyed 162 respondents and found that perceived benefits, opportunities to try mobile banking, the number of banking services required by respondents and perceived risks significantly influenced people to adopt mobile banking.

Research conducted by Chian -Son Yu (2012) in Taiwan concluded that in a manner empirically individual intention to adopt mobile banking is significantly influenced by social influence, perceived financial costs, performance expectations, and perceived credibility .As for the moderating effect of sex and age, it is known that gender significantly moderates the effects of perceived performance expectations and financial costs on behavioral intentions, and age significantly moderates the effects of facilitating conditions and perceived self-efficacy on actual adoption behavior .

According to Mutiara Indah et al (2018) Variable hope performance (performance expectancy) (X1) and Variables influence social (social influence) (X3) influential positive to intention use (behavioral intention) for Go-Pay users in Padang City meanwhile Variable hope effort (effort expectancy) (X2) no effect. For variable facilitate condition (facilitating condition) (X4) and Variables intention use (behavioral intention) (X5) effect positive to behavior actual user (use behavior) for Go-Pay users in Padang City.

Next, Rianan et al (2018) analyzed connection between influential factor \_ to adoption e-commerce by MSME actors in Subang City with use the Unified Theory of Acceptance and Use of Technology (UTAUT) model approach. Sample in study this as many as 165 MSME actors. Data processing uses SMART PLS. The result show that The effect of PE (Performance Expectancy) on BI (Behavioral Intentions), SI (Social Influence) on BI, BI on USE (Use Behavior) and FC (Facilitating Conditions) on UB is significant.

Research conducted by Sutarmin et al (2019) shows that the implementation of non-cash movements can be increased by taking into account the potential carrying capacity in the form of: (1) Speed, (2) Security, (3) Efficiency / Practicality, (4) Value for money, and (5) ) Government programs. Non-cash movements can also be increased if they are able to overcome obstacles in the form of: (1) Human Resources Problems, (2) Procedural and Administrative Problems, (3) Cost Problems, (4) Machinery and Technology Problems, (5) Flexibility Problems and (6) Problems Business Environment. The results of research by Wayan Artha et al (2019) indicate that MSMEs have a positive perception of QRIS, as an easy alternative method of payment and can reduce physical contact. This study also found that the intention of MSMEs to use QRIS was influenced by: 1. Positive perceptions of QRIS; 2. Influence from outsiders, including buyers, close friends, and influencers; 3. Perceived barriers to using QRIS, including internet connection quality, usage fees, and transaction limits.

Ni KomangRisma et al (2019) proved that the variables of facilitating conditions, hedonic motivation, and price values affect the intention to use e-money, and the variables of habit and intention to use influence the behavior of using e-money. It can be interpreted that the higher the facilitating conditions, hedonic motivation or pleasure obtained and the trade off between costs and benefits received by users using e-money, it will increase one's belief that the system has great benefits in the future and is motivated to use the system.

Furthermore, RetnoFithriMeuthia et al, (2019) showed that the variables Social Influence, Performance Expectancy, Effort Expectancy and Power Distance are factors that influence the interest of MSME actors to use electronic money in the city of Padang.

### 2.4. Hypothesis



Based on the background, problem formulation, objectives, theoretical basis and results of previous research, the hypotheses in this study are:

It is suspected that performance expectancy, social influence, effort expectancy facilitating conditions and behavioral intention variables are determinants that influence the use of non-cash payments for MSMEs actors in Mandalika SEZs.

### 3. Research Method

#### 3.1. Type and Location Study

The type of research used is explanatory research. This research was conducted on MSMEs actors who are in the Mandalika SEZs which includes 5 villages namely Sengkol, Kuta, Mertak, Sukadana and Gerupuk Villages, Central Lombok, West Nusa Tenggara.

#### 3.2. Data Collection Methods and Techniques

The data collection method used in this study was a sample survey method, namely taking samples from a portion of the population of MSME actors in KEK Mandalika. Data collection techniques through the stages of literature study, observation, and direct interviews with respondents guided by a list of questions or questionnaires prepared by researchers.

#### 3.3. Sampling Techniques

The sample selection process used in this study was taken from the MSMEs population in Mandalika SEZs using probability random sampling, based on cluster sampling and determining the selected sample using the Tabel Angka Random (TAR).

#### 3.4. Population and Sample

The population in this study are all MSMEs in the Mandalika SEZs spread over 5 villages. The number of samples taken was 100 MSMEs based on heterogeneity and area coverage.

#### 3.5. Classification and Definition of Variable

##### 3.5.1. Classification of Variable

The variables in this study consist of endogenous and exogenous variables. The endogenous variable is the use of non-cash payments by MSMEs (Y) while the exogenous variable (Xi) is performance expectancy, social influence, effort expectancy, facilitating condition and behavior intentions variable.

##### 3.5.2. Definition of Variable

Based on the classification of variables, both endogenous variables (Y) and exogenous variables (Xi), as previously explained, the operational definitions of the variables are as follows:

- a. Performance Expectancy is a level of trust of MSMEs who believe that using a non-cash payment system will provide benefits such as speed, security and convenience so that MSME actors will feel non-cash payment transactions to be more effective, efficient and economical compared to cash payments. Indicators of job expectations are measured using a Likert scale with 4 alternative answers, namely: Strongly Disagree (STS), Disagree (TS), Agree (S), and Strongly Agree (SS).
- b. Social Influence is defined as the degree to which the influence of the surrounding environment (family, relatives, friends, and the community) who uses non-cash payments provides support for MSME actors to use non-cash payments. Social influence indicators are measured using a Likert scale with 4 alternative answers, namely: Strongly Disagree (STS), Disagree (TS), Agree (S), and Strongly Agree (SS).
- c. effort expectancy is the level of ease of use of information systems that can reduce efforts for MSME actors in doing a job. Indicators of business expectations are measured using a Likert scale with 4 alternative answers, namely: Strongly Disagree (STS), Disagree (TS), Agree (S), and Strongly Agree (SS).
- d. facilitating condition is the level at which a person believes that the infrastructure and resources are available to support the actual use of the information system. Condition facilitation indicators were measured using a Likert scale with 4 alternative answers, namely: Strongly Disagree (STS), Disagree (TS), Agree (S), and Strongly Agree (SS).
- e. behavioural intention is the intention or desire of MSME actors to use a system in the future. Indicators of intention to use are measured by a Likert scale with 4 alternative answers, namely: Strongly Disagree (STS), Disagree (TS), Agree (S), and Strongly Agree (SS).



f. Non-Cash Payment is the sum of the assessments of the 5 dimensions namely Performance Expectancy, Social Influence, effort expectancy, Facilitating condition, and behavioural intention.

### 3.6. Data Analysis Methods and Models

Data analysis in this study uses the Partial Least Square (PLS) approach. Data analysis was carried out on 2 things, namely the outer model and the inner model. The Outer Model test consists of validity and reliability tests. The validity test consists of convergent validity and discriminant validity. Reliability is measured from the value of composite reliability. While the test for the inner model is used for the determinant coefficient (R<sup>2</sup>) and Path Coefficient (Hypothesis Test). The outer model is used to evaluate the relationship between indicators and latent variables in order to assess the validity and reliability of each indicator. The convergent validity test in this study was carried out in two stages.

The analytical model used in this study is applied based on the UTAUT model with estimation methods and hypothesis testing using Partial Least Square (PLS). The steps for testing the PLS model are as follows. The path analysis model of all latent variables in PLS consists of three relationships (Ghozali, 2006, 22).

1. Inner model that specifies the relationship between latent variables (structural model)
2. Outer model that specifies the relationship between latent variables and their indicators or manifest variables (measurement model)
3. Weight relation in which case values of latent variables can be estimated.

Step 1 : Designing the inner model

In the inner model (inner relations, structural model and substantive theory), the equation model can be written as follows:

$$\eta = \beta_0 + \beta\eta + \Gamma\xi + \zeta \quad \dots\dots\dots (1)$$

Which is:

$\eta$  = latent variable endogenous (dependent) variable vector

$\xi$  = Vector exogenous (independent) latent variable

$\zeta$  = residual variable vector (unexplained variance).

Because PLS is designed for a recursive model, the relationship between latent variables, each latent variable is dependent  $\eta$  or often called the causal chain system of latent variables, with the following specifications:

$$\eta = \Sigma_i \beta_{ji} \eta_i + \Sigma_j \lambda_{jb} \xi_b + \zeta_j \quad \dots\dots\dots (2)$$

Step 2 : Designing the outer model (outer relation, measurement model), the equation is as follows:

$$X = \Lambda x \xi + \zeta_x \quad \dots\dots\dots (3)$$

$$Y = \Lambda y \eta + \zeta_y \quad \dots\dots\dots (4)$$

Which is:

X and y = indicators or manifest variables for exogenous and endogenous latent variables ( $\xi$  and  $\eta$ )

$\Lambda y$  and  $\Lambda x$  = are loading matrices that describe the regression coefficients

simple link that connects latent variables with their indicators.

$\zeta_x$  and  $\zeta_y$  = residuals which are interpreted as measurement errors or noise.

Step 3: Construct the path diagram

Step 4: parameter estimation obtained through PLS includes 3 categories, namely: weight estimate, path estimate, and loading (Solimun, 2007:10).

Step 5: Evaluation of the measurement model, including: outer model, and evaluation of the structural model (inner model)

Step 6: Hypothesis Testing (Solimun, 2007:12) Statistical hypothesis for the outer model:

$$H_0 : \lambda_i = 0$$

$$H_1 : \lambda_i \neq 0$$

1. Statistical hypothesis for the inner model: exogenous to endogenous latent variables:

$$H_0 : \gamma_i = 0$$

$$H_1 : \gamma_i \neq 0$$

2. Testing is done by t-test; p-value  $\leq 0.05$  (alpha 5%); is significant

3. In the significant outer model: it can be used as a latent variable measuring instrument.

4. In the inner model is significant, it can be interpreted that there is a significant influence of a latent variable on other latent variables.

## 4. Result and Discussion

### 4.1. Identity Respondents

The composition of respondents based on gender is as follows, male respondents are 49 people (49%) while female respondents are 51 people (51%). When viewed from the age of the respondents it is known that the age of the respondents ranged from 18 years to 60 years. The age of the respondents with the highest percentage was 26 years old. At this age someone is in the productive age category, innovative, high work enthusiasm, accompanied by an interest in developing the scale of their business, along with support as a tourism area (Mandalika SEZs) and the existence of the MotoGP circuit. Based on the level of education, it was found that 65% of respondents had an education at the high school level and 12% had an undergraduate degree, and 1 respondent did not go to school, the rest had elementary and junior high school education.

### 4.2 Evaluation and Testing of Measurement Models

#### 4.2.1 Evaluation of the Measurement Model (Outer Model)

Evaluation of Measurement Models done through two Step namely, validity test and reliability test.

##### 4.2.1.1 Validity Test

##### (1) Convergent Validity Test

Aims to determine the validity of each relationship between indicators and constructs or latent variables. Validity measurement can be done using the manifest variable indicator scores. Measurements with manifest indicators show that there is a change in an indicator in the latent variable when other indicators in the same latent variable change. Convergent validity test values are presented in the following table.

Table 4.10 *Outer Loading*

Indikator	Sampelasli (O)	Rata-rata sampel (M)	Standardevisasi (STDEV)	t statistik ( O/STDEV )	Nilai P (P values)	Validitas
HK1 <- HK	0.8858	0.8840	0.0279	31.7595	0.0000	Valid
HK2 <- HK	0.9066	0.9041	0.0239	37.8933	0.0000	Valid
HK3 <- HK	0.8805	0.8725	0.0440	20.0072	0.0000	Valid
PS1 <- PS	0.7503	0.7052	0.1523	4.9270	0.0000	Valid
PS2 <- PS	0.8220	0.7800	0.1335	6.1564	0.0000	Valid
PS3 <- PS	0.8702	0.8809	0.0487	17.8530	0.0000	Valid
HU1 <- HU	0.8556	0.8477	0.0486	17.6051	0.0000	Valid
HU2 <- HU	0.8654	0.8558	0.0550	15.7336	0.0000	Valid
HU3 <- HU	0.8984	0.9010	0.0198	45.4554	0.0000	Valid
PK1 <- PK	0.9584	0.9568	0.0120	79.8622	0.0000	Valid
PK2 <- PK	0.9407	0.9362	0.0196	47.9759	0.0000	Valid

PK3 <- PK	0.8821	0.8796	0.0386	22.8755	0.0000	Valid
NM1 <- NM	0.8801	0.8727	0.0473	18.5918	0.0000	Valid
NM2 <- NM	0.9045	0.9046	0.0228	39.6917	0.0000	Valid
P1 <- P	0.8911	0.8897	0.0223	39.8722	0.0000	Valid
P2 <- P	0.9330	0.9322	0.0213	43.7080	0.0000	Valid
P3 <- P	0.9271	0.9263	0.0197	47.0334	0.0000	Valid

According to Chin (1998) in Ghazali (2012: 25), a correlation can be said to meet convergent validity if it has a loading value of greater than 0.5. The output shows that the loading factor gives a value above the recommended value of 0.5, so that the indicators used in this study have met convergent validity.

(2) AVE (Average Variance Extracted) Value

The average extracted variance (AVE) with a value greater than 0.5 is used as a determinant of convergent validity. If the AVE value is less than 0.5 then it is considered convergently invalid.

Table 4.11 AVE (Average Variance Extracted)

Indikator	Sampelasli (O)	Rata-rata sampel (M)	Standardevisiasi (STDEV)	tstatistik ( O/STDEV )	Nilai P (P values)
HK	0.7940	0.7879	0.0427	18.6024	0.0000
PS	0.6653	0.6417	0.0878	7.5760	0.0000
HU	0.7627	0.7562	0.0560	13.6263	0.0000
PK	0.8605	0.8559	0.0337	25.5704	0.0000
NM	0.7963	0.7913	0.0528	15.0949	0.0000
P	0.8414	0.8399	0.0317	26.5761	0.0000

Based on the table above, it shows that all constructs or variables have an AVE value above 0.5 with the lowest AVE value being 0.6653 in the X2/PS social influenceconstruct, while the highest AVE value is 0.8605 in the X4/PS condition facilitating construct.

4.2.1.2 Reliability Test

To express the reliability of a latent variable, the composite reliability value must be greater than 0.5 and the Cronbach's alpha value is greater than 0.5.

Table 4.12 Reliability Test Result with Cronbach’s alpha

Variabel	Sampelasli (O)	Rata-rata sampel (M)	Standardevisiasi (STDEV)	T statistik ( O/STDEV )	Nilai P (P values)
HK	0,8705	0,8646	0,0342	25,4411	0,0000
PK	0,9185	0,9150	0,0239	38,3771	0,0000
HU	0,8465	0,8391	0,0470	18,0188	0,0000
PS	0,7774	0,7713	0,0474	16,4121	0,0000
NM	0,7448	0,7327	0,0862	8,6393	0,0000
P	0,9056	0,9037	0,0228	39,6628	0,0000



Based on the table above, it can be seen that the latent variables measured in this study have a value of more than 0.5 based on Cronbach's Alpha value. So it can be said that all latent variables are reliable.

#### 4.2.2. Structural Model Testing (Inner Model)

##### a. Path Coefficient Testing

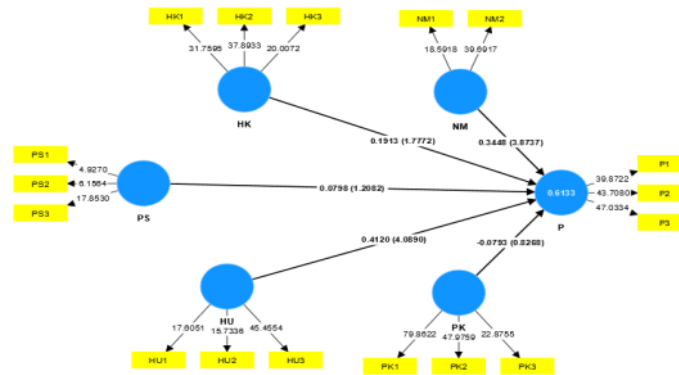


Figure 4.1 Structural Model

The significance test in the PLS model aims to determine the effect between variables, in this case exogenous variables on endogenous variables. Hypothesis testing by following the provisions based on the t-table value at a confidence level of 95% ( $\alpha$  of 5%). The results of testing the effect of exogenous variables on endogenous variables are shown in the following table.

Table 4.13 Path Coefficient Test Results

Variabel	Sampelasli (O)	Rata-rata sampel (M)	Standardevisasi (STDEV)	tstatistik ( O/STDEV )	Nilai P (P values)
HK → P	0.1913	0.1978	0.1077	1.7772	0.0761
PS → P	0.0798	0.0875	0.0660	1.2082	0.2275
HU → P	0.4120	0.4007	0.1008	4.0890	0.0001
PK → P	-0.0793	-0.0764	0.0959	0.8268	0.4088
NM → P	0.3448	0.3424	0.0890	3.8737	0.0001

The significance of the estimated parameters provides very useful information regarding the relationship between research variables. The basis used in the interpretation for each latent variable relationship refers to table 4.13, while the explanation is described as follows.

##### 1. Testing the performance expectancy hypothesis (HK=X1) on the use of non-cash transactions (Y)

Based on table 4.13 above, the t statistical value for the performance expectation variable (HK) has an effect on the non-cash transaction use variable (Y) of 1.77, if the t statistical value is compared to the t-table at  $\alpha$  5 percent it is 1.96, then the calculated t value is smaller than the t table value, but when compared with the t table at alpha 10 percent (1.64) it is

concluded that the performance expectation variable (HK = X1) rejects H0 or accepts Ha, meaning that the performance expectation variable (HK=X1) with 3 indicators influencing interest in using non-cash transactions (Y).

2. Testing the social influence hypothesis (PS=X2) on the use of non-cash transactions (Y)

Based on the table above the t statistic for the social support variable (X3) on the variable use of non-cash transactions (Y) is 1.2082, if the t statistic value is compared to the t-table at  $\alpha$  5 percent it is 1.96, then the calculated t value smaller than the t table value ( $1.2082 < 1.96$ ). Thus it is concluded that H0 is accepted or Ha is rejected, meaning that the social influence variable (PS) and its indicators do not affect the use of non-cash transactions (Y).

3. Testing the effort expectancy hypothesis (HU=X3) on the use of non-cash transactions (Y)

Based on the same table, the t statistical value for the business expectation variable (HU) on the variable use of non-cash transactions is 4.0890, if the t statistical value is compared to the t-table at  $\alpha$  5 percent which is 1.96, then the calculated t value greater than the t table value. Thus it is concluded that H0 is rejected or Ha is accepted, meaning that the business expectation variable (HU=X3) and its indicators influence the use of non-cash transactions (Y).

4. Testing the facilitating condition hypothesis (PK=X4) on the use of non-cash transactions (Y)

Based on the table above the t statistic for the variable condition of the facility (X4) on the variable use of non-cash transactions (Y) is 0.8268, if the t statistic value is compared to the t-table at  $\alpha$  5 percent is 1.96, then the t value is calculated smaller than the t table value ( $0.8268 < 1.96$ ). Thus it is concluded that H0 is accepted or Ha is rejected, meaning that the facility condition variable (PK) and its indicators have no effect on the use of non-cash transactions (Y).

5. Testing the behavioural intention hypothesis (NM=X5) on the use of non-cash transactions (Y)

Based on the table above, the t statistic value for the intention to use variable (NM) on the variable use of non-cash transactions is 3.8737, if the t statistical value is compared to the t-table at  $\alpha$  5 percent which is 1.96, then the calculated t value greater than the t table value. Thus it is concluded that H0 is rejected or Ha is accepted, meaning that the intention to use variable (NM=X5) with its indicators influences the use of non-cash transactions (Y).

The structural model in PLS is measured using the dependent construct of the path coefficient value or the t-value of each path for the significance test between constructs in the structural model. The value is used to measure the level of variation of changes in the independent variable to the dependent variable. The higher it is, the better the prediction model of the proposed research model (Jogiyanto&Abdillah, 2016: 62). This evaluation consists of two criteria, namely the coefficient of determination ( $R^2$ ), and Effect Size ( $f^2$ ).

b. Coefficient of Determination ( $R^2$ )

Table 4.13 Coefficient of Determination ( $R^2$ )

	Sampelasli (O)	Rata-rata sampel (M)	Standardevisasi (STDEV)	tstatistik (O/STDEV)	Nilai P (P values)
P	0,6329	0,6519	0,0601	10,5243	0,0000

Based on the results of testing the data presented in Table 4.13 above, it can be seen that the determinant construct for the use of non-cash transactions for MSMEs in MandalikaSEZs is 0.6329. These results indicate that the analysis is

categorized as moderate. That is, the construct of using non-cash transactions is influenced by performance expectations, social influence, business expectations, facility conditions, and intention to use by 63.29 percent and the remaining 36.7 percent is influenced by other variables outside the model including business scale, business promotion, and vision and innovation in business development.

c. *Effect Size* ( $f^2$ ).

Table 4.14 Coefficient of *Effect Size* ( $f^2$ ).

Variabel	Sampelasli (O)	Rata-rata sampel (M)	Standardevisasi (STDEV)	tstatistik ((O/STDEV))	Nilai P (P values)
HK -> P	0,0571	0,0825	0,0807	0,7072	0,4797
PK -> P	0,0092	0,0234	0,0304	0,3037	0,7615
HU -> P	0,1821	0,1912	0,0987	1,8444	0,0657
PS -> P	0,0140	0,0272	0,0322	0,4354	0,6634
NM -> P	0,1785	0,1925	0,1080	1,6532	0,0989

The *Effect Size* ( $f^2$ ) value indicates whether or not there is a significant relationship between variables. That every variable with a value of  $f^2 > 0.02$ , can be categorized as having an effect or influence. In other words, there is an influence on the aspects of performance expectations, social influence, business expectations, facility conditions, and intention to use the use of non-cash transactions by MSME in MandalikaSEZs. According to Wong (2013) that a researcher should also assess the influence between variables with the *Effect Size* ( $f^2$ ). The criteria for the value of  $f^2$  are as follows. Values of  $f^2 = 0.02$  (small),  $f^2 = 0.15$  (moderate),  $f^2 = 0.35$  (large), and values of  $f^2 < 0.02$  can be ignored or considered to have no effect (Sarstedt et al., 2017).

Based on the criteria above and the research findings, it can be revealed that effort expectancy (HU) with an  $f^2$  value of 0.1821, behavioural intention (NM) with an  $f^2$  value of 0.1785 are the two dominant constructs or variables that influence the use of non-cash transactions by perpetrators MSMEs in MandalikaSEZs.

## 5. Conclusions and Suggestions

### 5.1. Conclusion

Based on results analysis that has been done with using the equation model of partial least squares structural (PLS-SEM), the results show that:

1. From 5 variables, namely performance expectancy, social influence, effort expectancy, facilitating conditions, and behavioural intention, only effort expectancy and behavioural intention have a significant effect, while performance expectancy, social influence, and facilitating conditions do not have a significant effect on the use of non-cash transactions to MSMEs in MandalikaSEZs.
2. Based on the results of data testing, it is known that the determinant construct for the use of non-cash transactions for MSMEs in Mandalika SEZs is 0.6329. These results indicate that the analysis is categorized as moderate. That is, the construct of using non-cash transactions is influenced by performance expectancy, social influence, effort expectancy, facilitating conditions, and behavioural intention by 63.29 percent and the remaining 36.7 percent is influenced by other variables outside the model including business scale, business promotion, and vision and innovation in business development.
3. Based on the assessment of the influence between variables with the *Effect Size* ( $f^2$ ), it can be revealed that effort expectancy (HU) with an  $f^2$  value of 0.1821, behavioural intention (NM) with an  $f^2$  value of 0.1785 are the two dominant constructs or variables that influence the use of non-cash transactions by MSMEs in Mandalika SEZs.



## 5.2. Suggestion

1. Bank Indonesia together with the ministry of informatics should be able to provide better infrastructure to facilitate the use of non-cash transactions.
2. There is a need for continuous dissemination by Bank Indonesia to be able to change the behavior of MSMEs related to the use of non-cash transactions so that sales turnover increases which in turn increases welfare.

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## GRADEMARK REPORT

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FINAL GRADE

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GENERAL COMMENTS

**Instructor**

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