The Effect of Electronic Coupon Value to Perceived Usefulness and Perceived Ease-of-Use and its Implication to Behavioral Intention to Use Server-Based Electronic Money

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Abstract

➢ *Objective:*
This study aims to know, analyze, and examine the effect of electronic coupun value to perceived ease-of-use and perceived usefulness and its implication to behavioral intention to use server-based electronic money.

➢ *Study Design/Methodology/Approach:*
Study object is user of or someone who ever used server-based electronic money, using causal analysis method. The population of the study is public community or people who live in Jabodetabek area (Jakarta, Bogor, Depok, Tangerang and Bekasi with 170 respondents as sample using purposive sampling method. Descriptive method with quantitative approach applied to this study, data analysis used SEM and data processing used SmartPLS 3.0.

➢ *Findings:*
This study reveals that perceived usefulness mediates correlation between electronic coupon value and intention to use technology, while perceived ease-of-use did not significantly mediate correlation between electronic coupon value and intention to use server-based electronic money payment technology.

➢ *Study Limitation/Implication:*
Perceived Ease-of-Use gave the R-Square at 0.262 which could be interpreted that Perceived Ease-of-Use construct variable as explained by Electronic Coupon Value only at 26.3% while 73.7% was explained by other variables excluded from the study, therefore, it is highly recommended to investigate other factors that might influence perceived ease-of-use such as perceived enjoyment, trust, security or subjective norm.

Keywords:- Technology Acceptance Model, Electronic Coupon Value, Perceived Usefulness, Perceived Ease-of-Use, Intention to Use, Server-Based Electronic Money.

I. INTRODUCTION

Information technology development has made huge change to people's lifestyle that currently dominated by fast-paced demands of life.

Digital technology wave penetration has come to almost all aspects of human life and economic of Indonesian people, such as in transportation, health, education, retail, hotel and finance.

Fintech refers to use of technology to give solutions to financial problems (Arner, et. al, 2015). Fintech is also defined as technology innovation in financial service that could result in business models, application, process or products with materials related with financial service availability (Financial Stability Board, in Nizar, 2017).

Electronic money (e-money) as payment instrument is currently more often used by people in Indonesia. Based on statistics data of Bank Indonesia, until 2017 total e-money users across all over Indonesia was 90,003,848 users. This figure has increased by 75.77% compared to year 2016 and increased by 148.46% from year 2013.

Year	Total e-Money Users
2013	36,225,373
2014	35,738,233
2015	34,314,795
2016	51,204,580
2017	90,003,848

Table 1:- Total e-Money users in Indonesia
Source: The Central Bank of the Republic of Indonesia (2018)

According to the Central Bank of the Republic of Indonesia as shown on Table 1, e-Money users in Indonesia in 2013 was 36,225,373 and reduced annually until 2015 to only 34,314,795 users. However, significant increased happened in 2016 to 51,204,580 users and 90,003,848 in the following year. Improvement in information technology literacy which initiates formation of information society, including electronic payment instrument, can be seen from several regulations issue by Bank Indonesia about electronic money.

One of the regulations of Bank Indonesia number 16/8/PBI/2014 contains arrangement of e-money licensing and cooperation.

Bank Indonesia regulation No. 18/17/PBI/2016 about e-money provider become the result of effort of Bank Indonesia in changing previous regulation. In 2018, Bank Indonesia updated the regulation because of more developed model and variation in the business of e-money provider and more demand from community to use e-money. Bank Indonesia attempts to protect consumer, issuer and provider of e-money through implementation of Bank Indonesia regulation no 20/6/PBI/2018 which is more specific and comprehensive in management of e-money.

E-money transactions volume five years ago was 137,900,779 transactions, equal with value of Rp2.9 trillion. Within five years, e-money volume has increased drastically to 943,319,933 transactions with value of Rp12.38 trillion in 2017. Value of e-money transactions from 2013 to 2017 can be seen on the table below.

Year	Volume	Nominal (In Million Rp)
2013	137,900,779	2,907,432
2014	203,369,990	3,319,556
2015	535,579,528	5,283,018
2016	683,133,352	7,063,689
2017	943,319,933	12,375,469

Table 2:- E-Money Transactions in Indonesia
Source: The Central Bank of the Republic of Indonesia (2018)

Smartphone product growth is incredible in the world including in Indonesia. Survey institution named eMarketer.com conducted estimation using multi-focus approach on global trend, economic trend and population growth in the world state that the smartphone users have increased by 216.06% within 5 years, from 27.4 million users in 2013 to 56.6 million users in 2017.

Year	Users (in Million)
2013	27.4
2014	38.3
2015	52.2
2016	69.4
2017	86.6

Table 3:- Smartphone Users in Indonesia
Source: *eMarketer.com* (2018)

The increase of smartphone users is also related with increase of e-commerce in the world, this encourages server-based e-money or online e-money via smartphone, such as Alipay owned by China, the giant internet company and PayPal as US-based online e-money. In Indonesia, similar thing is available such as Gopay as payment application owned by Gojek, LinkAja as joint payment application which consists of T-cash, Mandiri e-cash, Tbank, UnikQu and T-money in one application, XL Tunai for users of XL cellular phone provider, Paypro for cellular provider users Indosat Ooredoo, Paytren, OVO and DANA.

An increase in number of smartphone users in Indonesia is not directly proportional to an increase in mobile payment service adoption. The adoption is still categorized low. Indonesia is on 33th of 34 countries in mobile payment readiness survey, consumers in Indonesia are below the average rate in terms of intention to use mobile payment service (Nugroho, 2017).

Results of pre-survey to 25 respondents conducted by writer supports that statement. Table 4 shows results of pre-survey.

e-Money Type	Respondents	Percentage
Chip-based	16	64%
Server-based	9	36%

Table 4:- Most frequently used e-Money
Source: Processed by Writer (2018)

Results show that 64% of respondents are using chip-based e-money more often for short but high frequency of transactions such as payment of transportation fee. The chip-based e-money is usually in the form of physical card (smart card), such as Flazz BCA, E-Money Mandiri, E-Toll Card, Tap Cash BNI, Brizzi BRI, Blink BTN, JakCard Bank DKI, OK Otrip, Gaz Card Pertamina, Indomaret Card, or E-Money Alfamart.

Meanwhile 36% of respondents used server-based e-money. This can be seen from limited options for mobile payment or server-based e-money in the online or offline market.

According to Putra (2015), Indonesian people are not yet familiar using mobile device for payment and there is still a perception uncomfortable use of smartphone for payment due to small screen to do transaction. That condition stimulates a question whether usefulness and ease-of-use of payment technology are less interesting or any other factors that hindering consumers to accept advanced technology for payment system.

Consumers tend to consider coupon value as a good offer indication, and do not pay attention to the difference between coupon product and other products (Chiang, et al., 2013).

A study conducted by Lai (2016) stated that the higher the security support, the bigger intention to use the technology. Security is very important a consumer to make final decision about use of electronic payment. A consumer is worried taking cash and card which will expose them to theft and loss. Server-based e-money is able to provide additional security feature such as pin before using e-money in order to reduce risk.

Any party who acts as payment system provider of server-based e-money should obtain a license from Bank Indonesia. The party who wants become payment system provider of server-based e-money should fulfil requirements such as; company profile and legacy, legal matters, operational readiness, system security and

reliability, business feasibility, risk management and consumer protection, (Bank Indonesia, 2019)

Security is also related with organizations providing consumer protection and risk is commonly related with consumer trust to adopt new technology. However, a set of security standard has been set to reduce risk in electronic payment industry. There are 38 server-based e-money providers who already obtained license from Bank Indonesia on 24 October 2019, among others are Gopay, Ovo Cash, Dana, LinkAja, Paypro, Jakarta One, Paytren and Shopeepay (Bank Indonesia, 2019).

For an individual, it is assumed that the higher perception to technology which is similar with perception to the needs the higher an individual to trust that technology (Ayeh, et al., 2013). Subjective norm is significantly influence Indonesian consumer to adopt e-money. It means someone considered important by a consumer such as family and friend will be the key factor determining a consumer to make decision on use of e-money (Anjelina, 2018). According to Nugroho, et al. (2017), in theory use of mobile payment should make a consumer easier, faster, flexible in time and place to finish a transaction. Therefore, it is important to know factors influencing the intention to use e-money in mobile payment.

The objective of conducting pre-survey was to identify dominant factors influencing behavior intention of consumer to use server-based e-money as one of technologies in mobile payment.

Pre-survey was conducted by distributing questionnaire to 25 respondents and asked about factors they considered influencing behavior intention to use server-based e-money. Table 1.5 shows results of pre-survey.

Table 5 reveals factors influencing behavioral intention of consumers to use server-based e-money for mobile payment namely perceived ease-of-use at rate of 100% followed by perceived usefulness at rate of 84%, e-coupon value at rate of 72%, perceived enjoyment at rate 60%, trust and security at rate of 52% and subjective norm at rate of 24%. According to pre-survey results, dominant factors influencing behavioral intention of consumers to use server-based e-money for mobile payment are perceived ease-of-use, perceived usefulness and e-coupon value.

➢ *Factors Influencing Behavior Intention to Use Mobile Payment on e-Money*

Statement	Yes		No		Total	
	$\sum$	%	$\sum$	%	$\sum$	%
Perceived Ease-of-Use	**25**	**100**	0	0	25	100
Perceived Usefulness	**21**	**84**	4	16	25	100
E-coupons Value	**18**	**72**	7	28	25	100
Perceived Enjoyment	14	60	10	40	25	100
Trust	13	52	9	48	25	100
Security	13	52	9	48	25	100
Subjective Norm	6	24	19	76	25	100

Table 5:- Pre-Survey Questionnaire
Source: Processed by Writer (2018)

II.   LITERATURE REVIEW

A. Definition of Electronic Money
Electronic money is the realization of modern banking system using Card-based Payment Instrument. Definition of electronic money according to Regulation of Bank Indonesia No. 16/8/PBI/2014 is a payment instrument which meets 4 conditions as follows:
➢ Issued based on value of money paid in advance to card issuer.
➢ Value of money stored electronically in a media chip or server.
➢ As a payment instrument to trader who are not issuer of the electronic money.
➢ Value of e-money managed by issuer is not treated as saving as mentioned in banking law.

Meanwhile, according to Bank for International Settlement in Fahmi (2016), electronic money is defined as a product which stores some amount of money within its electronic system and in the format of card or prepaid card. The money value in the system is obtained by depositing some amount of money in cash for further saving in the system.

B. Types of Electronic Money
Bank Indonesia through its Directorate for Accounting and Payment System Bureau of National Payment System Development (2018), divided into two e-money product types based on media being used:
➢ Prepaid Card (commonly called as electronic purses), with the following characteristics:
• "Electronic Value" is stored in a chip (integrated circuit) embedded within the card.
• Fund transfer mechanism is performed by inserting the card into a card reader.

Several electronic money products (prepaid card) issued by the bank are Flazz card from BCA Bank, e-money from Mandiri Bank, Brizzi from BRI Bank, TapCash from BNI Bank, Jak Card from DKI Jakarta Bank, Mega Cash from Mega Bank, Nobu E-Money from National Nobu Bank.

➢ Prepaid software (commonly called as digital cash) with the following characteristics:
• "Electronic Value" is stored in a computer hard disk.
• Fund transfer is performed through a communication network such as internet when making a payment.

According to Bank Indonesia (2016) certification or security system standard for server-based electronic money payment providers are:

➢ Fulfilment of certification and/or security standard and system realiability generally applicable or as defined by Bank Indonesia or relevant authority/institution.
➢ Maintenance and improvement in technology security.
➢ Implementation of audit which is conducted regularly at least once in 3 years or when there is a significant change.

C. The Benefits of Electronic Money

Use of electronic money as a payment instrument could give the following benefits (Bank Indonesia, 2018):

➢ Easier and faster to do payment transactions without bringing cash.
➢ No more change in the form of an item (such as a candy) due to inavailability of change in cash of the seller.
➢ Applicable for mass small transactions but have high frequency such as payment for transportation fee, parking fee, toll road fee, fast food payment, etc.

D. Mobile Payment

Mobile payment can be used for various payment transactions including for transportation, hotel, restaurant, and cinema. One of obstacles in mobile payment at the current market is limited explanation and definition of mobile payment in industry. It is still a confusing definition to people about m-payment, m-banking and other payment functions which could be done through cellular phone.

Untoro et al. (2013) mentions several transactions which could be done through smartphone as follows:

➢ Mobile Order is a transaction using a smartphone to make an order without payment.
➢ Mobile Payment is a payment (fund transfer as reward on an item or a service purchased) using a smartphone to do and confirm payment, and can be done in many locations.
➢ Mobile Delivery is a transaction using a smartphone only to receive delivery of an item or a service, such as an event ticket without making any payment.
➢ Mobile Authentication is use of a cellular phone for user's authentication either as part of payment transaction or providing access to some information or functions.
➢ Mobile Banking is an access to banking functions (query and transaction) through a smartphone, including provision of part or overall banking functions as already provided by the bank through its online banking features.

E. Electronic Coupon Value

Sales promotion consists of all incentives offered to consumer to encourage them to by a product. Consumer promotion is intented for consumer or potential consumer to use a product or the end user. A marketer uses consumer promotion as another tactic to lead final decision for buying the item to help the sales traffic and improve brand loyalty (Baack and Clow, 2016).

According to Sawyer and Dickson in the research conducted by Park et al. (2013) a coupon is a certificate which provides discount or special benefit only for coupon holder. A traditional coupon is distributed through traditional media such as newspaper, leaflet, and email to reach potential customers. Introduction to electronic coupon brings behavioral change of customers, they become more actively looking for information and obtain electronic coupon (Fortin, 2000).

Electronic coupon (e-coupon) is different with traditional coupon which were made in the paper format due to its distribution character. The electronic coupon is usually issued on a web page, meanwhile, the e-cash coupon has functional application and similar characteristic as in internet like a cash coupon. The e-cash coupon has characteristics low production and reproduction cost and more accurate distribution. E-cash coupon uses series of codes to represent cash denomination (Ardizzone dan Mortara, 2014). E-coupon is in the form of e-cash coupon, therefore, its denomination refers to value shown by the coupon itself.

F. Technology Acceptance Model (TAM)

Various studies on analysis of technology acceptance have been conducted including analysis of electronic money technology acceptance. Initial study on technology acceptance was conducted by Davis (1989) using Technology Acceptance Model approach. This study shows information technology acceptance is seen as actual use of the technology and influenced by behavioral intention to use it.

TAM has an objective to explain primary factors in behavior of users of information technology to their acceptance of the technology itself. TAM explains information technology acceptance in details using specific dimensions which can influence ease of acceptance of information technology by the users. Technology Acceptance Model (TAM) defines two perceptions of technology users that has impact to their acceptance. Reaction and perception of information technology users are known and will influence their behavior in accepting it. One factor which influence users is their perceived usefulness and ease-of-use to information technology as one reasonable action in the context of information technology use (Venkatesh, et al., 2003).

Reaction and perception of information technology users are known and will influence their behavior in accepting it. One factor which influence users is their perceived usefulness and ease-of-use to information technology as one reasonable action in the context of information technology use (Venkatesh, et al., 2003). Empirical study has found that TAM is consistent explaining most of variance (approximately at rate of 40%) in in users intention and behavioral intention and TAM makes comparison with alternative model such as Theory of Reasoned Action (TRA) and Theory of Planned Behavior (TPB). TAM theory explains that individual behavioral intention to use a system is determined by two beliefs, first the perceived usefulness which defined as to what extent someone believes using a system can improve his/her performance. Second, the perceived ease-of-use which defined as to what extent someone believes using the system can make his/her free from doing somethingdcc. TAM also has a theory that impact of external variables (for example system characteristic, development process, training) to intention to use is mediated by perceived usefulness and perceived ease-of-use.

G. Perceived Usefulness

According to Venkatesh & Davis (2000), perceived usefulness is defined as to what extent someone believes using a system can improve his/her performance. This is in line with perceived usefulness according to Phonthanukitithaworn, et al. (2016) who said to what extent someone believes using mobile payment can improve his/her performance and productivity when making payment transaction. Meanwhile according to Bailey et al. (2017) perceived usefulness on mobile payment refers to what extent a consumer believes that he/she will get similar benefit if they do payment using smartphone just like they do it with other payment method. For example, a consumer believes that by using mobile payment their job will become more effective and efficient. A consumer feels comfortable using this service without carrying cash to make payment. The effect of perceived usefulness to intention to use mobile payment has been tested in previous studies and show positively significant result (Wu et al., 2014).

H. Perceived Ease-of-Use

In Bahasa Indonesia dictionary, perception is defined as a response or direct acceptance of something or a process of someone to know some things through the five senses. An individual will act based on a perception without paying attention whether it is accurate or inaccurate to describe reality. Explanation about reality may be different from one to another. The presence of a technology will be perceived different by someone. Someone may consider new technology will give more ease and benefits but another person thinks the other way around. Perception is a direct response (acceptance) of something. Davis et al., in Setyowati and Respati (2017) define perceived ease-of-use as level of confidence from someone that using a certain system will not need strong effort.

Based on the above definition, it is concluded that perceived ease-of-use will reduce someone's effort (time or power) to learn information technology. Ease-of-use comparison shows an indication that someone who uses new system works more easy compare to someone who still uses old system. Users believe that information technology is more flexible, easy to understand and easy to operate (compatible) as characteristics of ease-of-use.

I. Behavioral Intention to Use

Saeroji et al. (2015) said behavioral intention shows how hard an effort made an individual to commit conducting a behavor. The stronger the commitment defines realization of the behavior.

The expressions of behavioral intention should be related with high accuracy prediction to specific volitional activities. If the intentions are believed as direct determinant of volitional behavior, it should be correlated stronger with behavior rather than other determinant factors.

J. Mediation of Perceived Usefulness and Perceived Ease-of-Use

In addition, electronic coupon benefits are to eliminate printing cost, reduce paper waste, for easy update, and higher redemption rate (Keller & Kotler, 2013).

According to Dickinger & Kleijnen (2008) use of e-coupon and intention to choose a store via smartphone and laptop is higher at stores who provide e-coupon in comparison to stores who do not provide e-coupon.
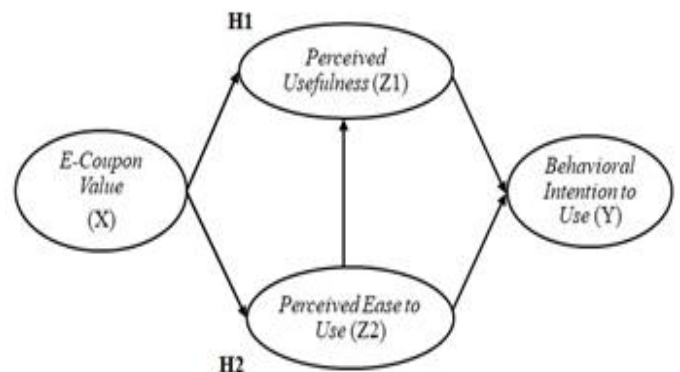

Fig 1:- Framework

> **H1:** Perceived usefulness has positive and significant effect to mediate correlation between electronic coupon value and behavioral intention to use server-based electronic money.
> **H2:** Perceived ease-of-use has positive and significant effect to mediate correlation between electronic coupon value and behavioral intention to use server-based electronic money.

III. METHODOLOGY

The study object is the user or someone who ever used server-based electronic money, with causal analysis approach for data analysis. The population was general community or people who live in Jabodetabek area (Jakarta, Bogor, Depok and Bekasi) with 170 respondents using purposive sampling technique. This study applies descriptive method with quantitative approach, SEM is selected for data analysis and SmartPLS 3.0 is selected for data processing software.

IV. FINDINGS, SUMMARY AND DISCUSSIONS

A. Population Sample

Population of the study is local residents or people who live in Jabodetabek area (Jakarta, Bogor, Depok, Tangerang and Bekasi).

According to Sugiyono (2014) sample is part of total population with similar characteristics. If population is big and it is impossible for a researcher to learn all unit in that population, for example due to limited fund, human resources and time, then the researcher may use sample taken from the population. Sampling method used for this study was convenience sampling.

Noor (2012:155) defines convenience sampling as sampling technique by considering its ease. Someone is taken as a sample because inaccidently met him/her or already knew the person. Anyone who accidently meet the researcher and thought he/she met sample characteristic then will be taken as the sample.

Minimum sample size for SEM analysis according to Hair (2010:361), if there are 5 or less constructs in the model being analized where each construct is measured by 3 indicators then the minimum sample size required is 100-300 observations.

Hair et al. in Andryanto (2016) stated that ideal and representative respondents' size depends on number of all indicators in variables multiplied by 5-10. This study has 17 indicators. The minimum number of respondents for this study is 17 x 5 = 85, which is rounded into 100 respondents whereas the maximum number of respondents is 17 x 10 = 170.

Therefore, total number respondents taken for this study was 170 respondents. It is considered representative enough for population to be observed because it has met minimum sample threshold. Research sample criteria is general community who use or ever used server-based e-money for mobile payment using mobile payment application.

B. Use of Server-Based Electronic Money

The following table shows server-based e-money oftenly used by respondents based on their answers in the questionnaire. Table 6. can be seen below.

server-based e-money	Total	Percentage
OVO	81	48%
GOPAY	56	33%
DANA	24	14%
LINKAJA	5	3%
PAYTREN	2	1%
DOKU	2	1%
PAYPRO	0	0%
	170	**100%**

Table 6:- Use of Server-based e-Money by Respondents
Source: Results of data processing (2019)

Based on Table 6, it can be seen that use of server-based e-money OVO has greater demand which is at the rate of 48%. Then followed by GOPAY on the second rank at the rate of 33% and DANA on the third rank at the rate of 14% whereas other users used other server-based e-money brand such as LINKAJA (3%) and PAYTREN and DOKU at 1% each.

C. Descriptive Analysis of Variables

Analysis of respondents' answers regarding e-coupon is shown on Table 7 (attached). It is found that highest index falls on e-coupon value variable on statement KUPON2 *"I tend to use e-coupon for transaction"*. The lowest index falls on e-coupon value variable on statement KUPON3 *"I can easily use or redempt e-coupon in many places and occasions when making transaction."*

Analysis of respondents' answers regarding perceived usefulness is described on Table 8 (attached), it is found that the highest index on perceived usefulness variable falls on statement PKB1 *"I can do various transaction fast using server-based e-money through the smartphone"* Whereas the lowest index regarding perceived usefulness falls on statement PKB3 *"I can be more productive when making transaction using server-based e-money through the smartphone"*.

Table 9 (attached) demonstrates the highest index falls on perceived usefulness variable on statement PKM2 *"I can easily operate server-based e-money through the smartphone"*. Perceived usefulness variable become the lowest index on statement PKM5 *"I become an expert and get used to making transactions using server-based e-money through the smartphone"*.

From Table 10 (attached), the highest index on behavioral intention to use variable falls on statement MPM1 Whereas the lowest index on behavioral intention to use varable falls on statement MPM3 *"I will always use server-based e-money through the smartphone"*.

D. Data Analysis Method: Component Based Structural Equation Modeling

Component/Variance-Based Structural Equation Modeling is an alternative of covariance-based SEM The component or variance-based SEM is known as Partial Least Square (PLS).

This method is intended for causal-predictive analysis in high complexity condition and limited theory support. PLS has objective to search linear predictive correlation of variables (component-based predictive model) (Ghozali, 2014). The steps taken to fulfill assumptions for variance-based SEM are requirements for variance-based SEM modeling both in data collection process or data processing process using Smart PLS3.

E. Testing of Outer Model or Measurement Model

Testing of measurement model (outer model) is used to determine specification of correlation between latent variable with manifest variable. This test consists of convergent validity. discriminant validity and composite reliability.

F. Convergent Validity

Convergent validity testing uses outer loading or loading factor value. An indicator met high convergent validity or in good category if outer loading value > 0.70. However, according to Chin as quoted by Ghozali (2015:74) the outer loading value between 0.5-0.6 is considered sufficient to meet the convergent validity. The following table shows outer loading value of each indicator of study variables.

Table 11. displays 3 observed variable indicators in latent variable of Electronic Coupon Value (X) which already met convergent validity requirements because it has outer loading value ≥0.50.

Measurement Model		Outer Loading ≥ 0.50	Remark
Latent Variable	Indicator Code		
E-Coupon Value (X)	KUPON1	0.842	Valid
	KUPON2	0.877	Valid
	KUPON3	0.891	Valid

Table 11:- Results of Convergent Validity Testing Electronic Coupon Value (X) Variable
Source: Output of SmartPLS. Results of Data Processing (2019)

Table 12 displays 5 observed variable indicators in latent variable of Perceived Usefulness (Z1) which already met convergent validity requirements because it has outer loading value ≥0.50.

Measurement Model		Outer Loading ≥ 0.50	Remark
Latent Variable	Indicator Code		
Perceived Usefulness (Z1)	PKB1	0.824	Valid
	PKB2	0.819	Valid
	PKB3	0.849	Valid
	PKB4	0.926	Valid
	PKB5	0.859	Valid

Table 12:- Results of Convergent Validity Testing Usefulness Value (Z1) Variable
Source: Output of SmartPLS. Results of Data Processing (2019)

Table 13 displays 6 observed variable indicators in latent variable of Perceived Usefulness (Z2) which already met convergent validity requirements because it has outer loading value ≥0.50.

Measurement Model		Outer Loading ≥ 0.50	Remark
Latent Variable	Indicator Code		
Perceived Ease-of-Use (Z2)	PKM1	0.869	Valid
	PKM2	0.877	Valid
	PKM3	0.850	Valid
	PKM4	0.882	Valid
	PKM5	0.801	Valid
	PKM6	0.869	Valid

Table 13:- Results of Convergent Validity Testing Perceived Ease-of-Use (Z2) Variable
Source: Output of SmartPLS. Results of Data Processing (2019)

Table 14 displays 3 observed variable indicators in latent variable of Behavioral Intention (Y) which already met convergent validity requirements and valid because it has outer loading value ≥0.50.

Measurement Model		Outer Loading ≥ 0.50	Remark
Latent Variable	Indicator Code		
Behavioral Intention to Use (Y)	MPM1	0.894	Valid
	MPM2	0.905	Valid
	MPM3	0.881	Valid

Table 14:- Results of Convergent Validity Testing Behavioral Intention To Use (Y) Variable
Source: Output of SmartPLS. Results of Data Processing (2019)

Convergent validity testing can also be seen through Average Variance Extracted (AVE) that should exceed 0.5. Results of AVE testing can be observed on Table 15 below:

Variable	Average Variance Extracted (AVE)
E-Coupon Value	0.758
Perceived Usefulness	0.734
Perceived Ease-of-Use	0.737
Beahvioral Intention to Use	0.798

Table 15:- Result of AVE Testing
Source: Output of SmartPLS. Results of Data Processing (2019)

Based on data shown on Table 15, it is found that AVE value for variables Electronic Coupon Value, Perceived Usefulness, Perceived Ease-of-Use and Behavioral Intention to Use have value >0.5. The AVE output results show good AVE value for each construct because AVE value is greater than 0.50.

G. Composite Reliability and Cronbach's Alpha

Composite reliability testing is an index shown to what extent a measuring tool can be trusted or reliable. According to Ghozali (2015:41), a variable met composite reliability requirements if it has composite reliability value >0.70. The composite reliability value for each variable used in this study is described below.

Variable	Composite Reliability	Remark
E-Coupon Value	0.904	Reliable
Perceived Usefulness	0.932	Reliable
Perceived Ease-of-Use	0.944	Reliable
Behavioral Intention to Use	0.922	Reliable

Table 16:- Results of Composite Reliability Testing
Source: Output of SmartPLS. Results of Data Processing (2019)

Based on data on Table 16 above, it can be seen that composite reliability value for all variables is >0.70. The results indicate that each variable has met requirements for composite reliability so it can be concluded that all variables have good reliability rate.

Reliability testing using composite reliability as explained above can be strengthen with the use of Cronbach's alpha value. The Cronbach's alpha value for each variable can be seen below:

Variable	Cronbach's Alpha	Remark
E-Coupon Value	0.841	Reliable
Perceived Usefulness	0.909	Reliable
Perceived Ease-of-Use	0.929	Reliable
Behavioral Intention to Use	0.873	Reliable

Table 17:- Results of Cronbach's Alpha Testing
Source: Output of SmartPLS. Results of Data Processing (2019)

Based on data on Table 17 it is known that Cronbach's alpha value for each study variable ≥0.70. This result confirms each study variable has met Cronbach's alpha value requirements. Conclusion which can be drawn is all constructs have good reliability or questionnaire used as research instrument on this study is reliable or consistent.

H. Discriminant Validity

Testing of discriminant validity of reflective indicators can be seen from cross loading between indicator and its construct. Based on Ghozali (2015:39), an indicator is valid or met requirements for discriminant validity if cross loading indicator value on the variable has the biggest value compare with other variables as shown on Table 18.

Based on Table 18, it can be seen that every indicator for variable being studied have the largest cross loading value on variables created rather than cross loading value of other variable. The results indicate that each indicator used in the study has good discriminant to develop its variables.

Indicator	E-Coupon Value	Perceived Usefulness	Perceived Ease-of-Use	Behavioral Intention to Use
KUPON1	0.842	0.473	0.379	0.414
KUPON2	0.877	0.532	0.430	0.425
KUPON3	0.891	0.592	0.516	0.425
PKB1	0.577	0.824	0.654	0.577
PKB2	0.410	0.819	0.700	0.624
PKB3	0.510	0.849	0.617	0.695
PKB4	0.540	0.926	0.722	0.696
PKB5	0.594	0.859	0.684	0.670
PKM1	0.393	0.670	0.869	0.580
PKM2	0.428	0.605	0.877	0.544
PKM3	0.368	0.592	0.850	0.514
PKM4	0.472	0.664	0.882	0.600
PKM5	0.517	0.802	0.801	0.684
PKM6	0.427	0.682	0.869	0.617
MPM1	0.428	0.647	0.600	0.894
MPM2	0.406	0.692	0.688	0.905
MPM3	0.463	0.704	0.570	0.881

Table 18:- Results of Discriminant Validity (Cross Loadings) Testing
Source: Output of SmartPLS. Results of Data Processing (2019)

Discriminant validity testing is also conducted to observe AVE root for each construct which should be greater than correlation with other construct and it can be seen on Table Fornell-Lacker Criterion.

Indicator	MPM	KUPON	PKB	PKM
Behavioral Intention to Use	0.893			
E-Coupon Value	0.483	0.871		
Perceived Usefulness	0.763	0.616	0.857	
Perceived Ease-of-Use	0.695	0.513	0.789	0.859

Table 19:- Results of Discriminant Validity (Fornell-Lacker Criterion) Testing
Source: Output of SmartPLS. Results of Data Processing (2019)

Based on the Table 15 above, AVE root for each intended construct is higher than correlation with other construct and this means indicators used in this study met requirements within discriminant validity criteria.

I. Structural Model Testing (Inner Model Testing)
The inner model testing is a concept and theoretical-based model development to analyze correlation between exogen and endogen variable as described in conceptual framework. Inner model analysis is conducted with objective to ensure structural model developed is robust and accurate. Testing to structural model is conducted by looking at R-Square value which comes from Goodness-fit model testing.

Steps for testing structural model (inner model) is conducted through the following steps: **R-Square values**

Based on completed data processing, the R-Square values are as follows:

Endogen Variable	*R-Square*
Perceived Usefulness (Z1)	0.683
Perceived Ease-of-Use (Z2)	0.263
Behavioral Intention to Use (Y)	0.605

Table 20:- Results of R-Square Testing
Source: Output of SmartPLS. Results of Data Processing (2019)

According to Chin in Ghozali and Latan (2015), the model is strong if R-Square value ≥ 0.67; moderate if R-Square value ≥ 0.33; and weak if R-Square value ≥ 0.19. Data shown on Table 4.16 indicates model in Behavioral Intention to Use has R-Square 0.605 and it can be interpreted that Behavioral Intention to Use construct variable as described by Electronic Coupon Value and Perceived Usefulness at rate of 60.5% meanwhile the rate of 39.5% was explained by other variables excluded from the study.

J. Predictive Relevance Value Testing (Q-Square)
The testing results to predictive relevance (Q2) gave value of 0.908 and higher than 0. This shows 90.8% variance on Perceived Usefulness variable, Perceived Ease-of-Use variable and Behavioral Intention to Use variable are explained by other variables used in the study. Exogen latent variable of the model in the study is considered relevant with exogen variable prediction which able to predict endogen latent variable.

K. Goodness of Fit Testing
Based on the GoF calculation above, it gave figure 0.625 and it can be concluded that the performance of measurement model and structural model has large GoF result 0.625 (greater than 0.38). This means 62.5% variance on the Behavioral Intention to Use server-based e-money variable is explained by other variables.

L. Hypothesis Testing result (Path Coefficient Estimation)
Estimation value for path correlation in structural model should be significant. Significant value can be obtained by conducting bootstrapping procedure. In order to know whether the value is significant or insignificant, this can be seen from t-table on alpha 0.05 (5%) = 1.96 then t-table is compared with T-statistic (count). Figure 4.4 below shows results of hypothesis testing obtained from botstrapping report using SmartPLS 3.0.
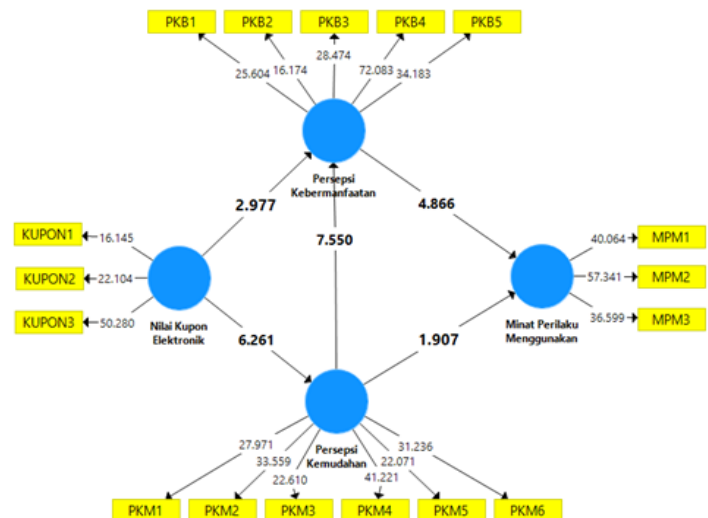

Fig 2:- Results of Bootstrapping Testing
Source: Output of SmartPLS. Results of Data Processing (2019)

M. Mediation Effect (Indirect Effect)
Testing mediation effect requires results from indirect effect specifically. This test aims to know whether Perceived Usefulness and Perceived Ease-of-Use are able to mediate correlation between Electronic Coupon Value and Behavioral Intention to Use. After eliminating insignificant path, final result from bootstrapping model testing show all paths on the model are significant because T-Statistic >1.96 from T-value. Result from hypothesis testing with indirect effect can be seen on the Table 21 below.

Based on hypothesis testing (H1) of this study, it shows that the value of T-statistic is larger than the t-value which is 3.380 (> 1.96) and P-value is smaller than alpha which is 0.001 (< 0.05). Large value of parameter coefficient at 0.163 shows positive value and can be concluded that Perceived Usefulness has significant positive influence to mediate correlation between Electronic Coupon Value and Behavioral Intention to Use server-based e-money. Perceived Usefulness in Electronic Coupon Value will influence Behavioral Intention to Use server-based electronic money.

➢ *Mediate Effect (Indirect Effect)*

H	Effect	Original Sample (O)	T Statistics (|O/STDEV|)	P Values	Remark.	Results
H1	**E-Coupon Value -> Perceived Usefulness -> Behavioral Intention to use**	0.163	3.380	0.001	**Positive – Significant**	**Accepted**
H2	**E-Coupon Value -> Perceived Ease-of-Use ->Behavioral Intention to Use**	0.126	1.702	0.089	**Positive – Not Significant**	**Rejected**

Table 21:- Results of Testing of Hypothesis
Source: Output of SmartPLS. Results of Data Processing (2019)

The hypothesis testing (H2) of this study shows T-statistic value is smaller than t-value namely 1.702 (< 1.96) and P-value is larger than alpha namely 0.089 (< 0.05). Large value of parameter coefficient at 0.126 shows positive value and can be concluded that Perceived Usefulness has significant positive influence to mediate correlation between Electronic Coupon Value and Behavioral Intention to Use.

From Table 21 it can be seen hypothesis Perceived Usefulness has positive and significant effect to mediate correlation between Electronic Coupon Value and Behavioral Intention to Use (H6) is accepted. The result is proven from Output Path Coefficient and P-value which describe path coefficient and P-value.

Testing using SmartPLS 3.0 show perceived usefulness which mediates electronic coupon value gives positive and significant effect to behavioral intention to use at rate of 0.163 or 16.3% with p<0.001 and significant to (p<0.05). SmartPLS program output is a standardized variable so it can be interpreted that 1 variance of standard deviation of perceived usefulness mediated e-coupon value caused 0.163 standard variance to behavioral intention to use server-based e-money. This means perceived usefulness that mediates e-coupon value has increased one value. Behavioral intention to use has increased by 0.163 point. It can be concluded that perceived usefulness which mediates electronic coupon value to behavioral intention to use has rate of 0.163 or 16.3%. This proves electronic coupon value will give effect to perceived usefulness and improve behavioral intention to use. The Effect of Perceived Ease-of-Use Mediation to Corelation between Electronic Coupon Value with Behavioral Intention to Use.

Other things known is hypothesis perceived ease-of-use has positive and significant effect to mediate correlation between electronic coupon value and behavioral intention to use is rejected (H7). The result is proven from Output Path Coefficient and P-value which describe path coefficient and P-value.

Testing using SmartPLS 3.0 show perceived ease-of-use which mediates electronic coupon value do not significantly give effect to behavioral intention with p-value (0.057) larger than (p<0.05). This proves electronic coupon value will not improve behavioral intention to use server-based e-money through perceived ease-of-use.

V. DISCUSSIONS & CONCLUSIONS

Perceived usefulness has positive and significant effect to mediate electronic coupon value to behavioral intention to use. This means perceived usefulness is the factor which can mediate effect of electronic coupon value to behavioral intention to use, the higher perceived usefulness in making transaction so the effect of electronic coupon value to behavioral intention to use server-based e-money is also higher. Perceived ease-of-use has positive effect and not significantly mediate electronic coupon value to behavioral intention to use. This means perceived ease-of-use is not the strong factor which can mediate effect of electronic coupon value to behavioral intention to use, however, the higher perceived ease-of-use in making transaction so the effect of electronic coupon value to behavioral intention to use digital wallet is also higher.

R-square value = 0.605 shows ability of independent variables (electronic coupon value, perceived usefulness and perceived ease-of-use) in explaining variance of dependent variables (behavioral intention to use) at the rate of 60.5%. Whereas, 29.5% are explained by other factors outside the model.

Reviewing that Perceived Ease-of-Use gave R-Square 0.262 which could be interpreted that construct variable of Perceived Ease-of-Use described by electronic Coupon Value variable only at the rate of 26.3% whereas 73.7% are described by other variables excluded from the study, it is highly recommended to investigate other factors that might give effect to perceived ease-of-use such as perceived enjoyment, trust, security or subjective norm.

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JOURNAL APPENDIX

➢ *E-Coupons Value Variable (X)*

Var	Code	Respondent Answer					Total	Mean	
		SD	D	N	A	SA			
X	KUPON1	2	2	23	52	91	170	4.34	
	KUPON2	3	4	23	40	100	170	4.35	**4.32**
	KUPON3	4	3	23	52	88	170	4.28	
Total		**9**	**8**	**67**	**150**	**276**	**510**		
Percentage		**1.8%**	**1.6%**	**13%**	**29%**	**54%**	**100%**		

Table 7:- Data Description Questionnaire Result

➢ *Perceived Usefulness Variable (Z1)*

Var	Code	Respondent Answer					Total	Mean	
		SD	D	N	A	SA			
Z1	PKB1	1	1	22	52	94	170	4.39	
	PKB2	1	2	27	55	85	170	4.30	
	PKB3	1	3	43	57	66	170	4.08	**4.27**
	PKB4	2	2	27	69	70	170	4.19	
	PKB5	1	1	19	61	88	170	4.38	
Total		**6**	**9**	**138**	**294**	**403**	**850**		
Percentage		**0.7%**	**1.1%**	**16%**	**35%**	**47%**	**100%**		

Table 8:- Data Description Questionnaire Result

➢ *Perceived Eas-to-Use Variable (Z2)*

Var	Code	Respondent Answer					Total	Mean	
		SD	D	N	A	SA			
Z2	PKM1	1	2	21	56	90	170	4.37	
	PKM2	1	1	18	53	97	170	4.44	
	PKM3	1	1	27	56	85	170	4.31	
	PKM4	1	5	31	42	91	170	4.28	**4.29**
	PKM5	2	4	51	54	59	170	3.96	
	PKM6	1	1	21	56	91	170	4.38	
Total		**7**	**14**	**169**	**317**	**513**	**1020**		
Percentage		**0.7%**	**1.4%**	**17%**	**31%**	**50%**	**100%**		

Table 9:- Data Description Questionnaire Result

➢ *Behavioral Intention to Use Variable (Y)*

Var	Code	Respondent Answer					Total	Mean	
		SD	D	N	A	SA			
Y	MPM1	0	2	26	70	72	170	4.25	
	MPM2	0	1	32	62	75	170	4.24	**4.12**
	MPM3	1	6	64	42	57	170	3.87	
Total		**1**	**9**	**122**	**174**	**204**	**510**		
Percentage		**0.2%**	**1.8%**	**24%**	**34%**	**40%**	**100%**		

Table 10:- Data Description Questionnaire Result