

FACTORS_AFFECTING_BEHAVIORAL_INTENTION_IN_USING_GO

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FACTORS AFFECTING BEHAVIORAL INTENTION IN USING GO-PAY WITH THE MODIFIED UNIFIED THEORY OF ACCEPTANCE AND USE OF TECHNOLOGY 2 MODEL (UTAUT2)

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Abstract

The development of payment systems in Indonesia is in line with the global technological advancements and followed by new innovations, including the presence of e-money. As a subsidiary of PT Aplikasi Karya Anak Bangsa (Go-Jek), PT Dompot Anak Bangsa is the holder of the Go-Pay e-money license and included as one of 32 companies that have obtained license as e-money operators from Bank Indonesia. Despite the current high transaction growth of Go-Pay, it may not survive without any efforts to improve its service quality and expand the consumer preferences in using Go-Pay. Therefore, it is necessary to identify the factors that influence behavioral intention in using Go-Pay. This study aims to examine and determine the factors that influence behavioral intention in using Go-Pay with the modified Unified Theory of Acceptance and Use of Technology 2 Model (UTAUT 2). This study uses a quantitative method with a questionnaire as the research instrument. The population of this study is Go-Pay users in the Special Region of Yogyakarta. The method of data analysis is SEM-PLS. The results showed that there were three factors that were significant in influencing people's interest in using Go-Pay, namely: Habit, Facilitating Condition, and Price Value.

Keywords: financial technology, e-money, Go-Pay, UTAUT2

Introduction

The information technology in the financial sector, nowadays better known under the term 'FinTech', has been initially applied in Indonesia. According to Bank Indonesia, there are 4 (four) classifications of FinTech, namely: Crowdfunding and Peer to Peer (P2P) Lending, Market Aggregator, Risk and Investment Management, and Payment, Settlement and Clearing. In the last few years, the payment systems in Indonesia have undergone massive developments and new innovations, including the trend of electronic money or e-money. Based on the Payment System Statistics issued by Bank Indonesia, in 2017, the electronic money transaction volume reached 943 million. This amount increased from 2016 with transaction volume of 683 million. Furthermore, it is

estimated that the volume reached 1.2 billion in January to June 2018.

PT Dompot Anak Bangsa, a subsidiary of PT Aplikasi Karya Anak Bangsa (Go-Jek) as the holder of the Go-Pay e-money license, is one of 32 companies that have obtained official license as electronic money operators from Bank Indonesia. Currently, in addition to the cash transaction, Go-Jek has added Go-Pay as a digital transaction service as its feature. It was launched in mid-2016 amidst an intense business competition. The high transaction growth with Go-Pay has been achieved by Go-Jek, yet it may not survive without any efforts to improve its service quality and expand the consumer preferences in using Go-Pay. Therefore, it is necessary to identify the factors that influence behavioral intention in using Go-Pay on a continuous basis.

One of the methods to carry out an analysis is by examining the factors of price value, habit, motivation, service performance, ease of use, and social influence. The appropriate method to analyze consumer behavior in adopting new services or technologies is the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) Model. Based on the literature review, previous studies using UTAUT2 model have demonstrated accurate and comprehensive results in representing consumer adoption of technology.

In fact, several studies both local and international have implemented the UTAUT2 model. This model was introduced by Venkatesh, Thong, and Xu (2012) who made the modification of the initial UTAUT model by adding several factors to examine consumer acceptance in the use of mobile internet technology. Similarly, Kuan, Ann, Badri, Freida, and Tang (2014) examined the factors in the UTAUT2 model in relation with the adoption of mobile apps in Malaysia. In Indonesia, several studies were done in which they discussed the factors that influence the adoption of instant messenger applications (Marhaeni, 2014), consumer behavior in adopting *Wi-fi* services (Putranto & Pramudiana, 2015), the factors affecting prospective behavioral intention to adopt home digital service (Putra & Ariyanti, 2013). Furthermore, some studies dissected the factors that influence the adoption of *e-payment*, especially Go-Pay, by using the UTAUT2 model, as carried out by Deningtyas dan Ariyanti (2017), and Putri, Indrawati, and Harsono (2017).

Previous studies have revealed that the magnitude of the factors that influence the adoption of technology vary greatly, while there are also factors that are found to be insignificant. Therefore, this study aims to provide solution for the problem concerning with the consumer behavior on using Go-Pay, particularly in the Special Region of Yogyakarta. Specifically, this study aims to examine and figure out the factors in the Unified Theory of Acceptance and Use of Technology 2 (UTAUT 2) model that influence behavioral intention in using Go-Pay, and to examine the moderating effect of age, gender, and income on the factors in the UTAUT 2 model on the use of Go-Pay electronic money.

Financial Technology/FinTech

In general and in a broad sense, FinTech refers to the use of technology to deliver financial

solutions (Arner, Barberis & Buckley, 2015). Meanwhile, according to Bank Indonesia, financial technology is the combination of financial services and technology that changes the conventional business model to moderate model, which initially requires face-to-face transaction and a certain amount of cash to long-distance transaction with payment method that can be done in just seconds.

Financial System

It is stipulated in Law Number 23 of 1999 on Bank Indonesia Article 1 paragraph (6), Payment System is a system which includes regulations, institutions, and mechanisms, used in conducting a transfer of funds in order to fulfill an obligation arising out of an economic activity. According to Mishkin (2001), payment system can be expressed simply as a method of conducting transactions in the economy.

Electronic Money/e-money

Based on Bank Indonesia Regulation number: 11/12/PBI/2009, Electronic Money refers to a means of payment in compliance with the following elements:

- a. issued based on value of money deposited first by a holder to an issuer;
- b. money value is stored electronically in a media such as a server or a chip;
- c. used as means of payment to a Merchant who is not an Issuer of electronic money; and
- d. value of electronic money deposited by a Holder and managed by an Issuer is not savings as referred to in the law concerning banking.

Go-Pay

Go-Pay is an electronic money platform as a subsidiary of Go-Jek company that is used as a payment option while using the Go-Jek application. Currently, the Go-Pay transaction is expanded not only in the Go-Jek application, but also accepted by other offline and online merchants (<https://www.gojek.com/>, 2018).

Model Unified Theory Acceptance and Use of Technology 2 (UTAUT2)

The UTAUT 2 model is modified from the UTAUT model developed by Venkatesh, Morris, and Davis (2003) by reviewing and identifying several theoretical models that primarily employed

to explain technology acceptance and use (Schaik, 2009). This model exposes the direct effect of performance expectancy, effort expectancy, and social influence on behavioral intention, as well as the influence of facilitating conditions and behavioral intention on use behavior. It entails four moderators, namely gender, age, experience, and voluntariness (Venkatesh et al., 2003). Furthermore, Venkatesh et al., (2012) clarify that the basic modification of UTAUT to formulate UTAUT2 model is to study the technology acceptance and use then tailoring it into a consumer use context. Venkatesh et al., (2012) added three additional constructs to the UTAUT2 model, namely Hedonic Motivation, Price Value, and Habit, as well as three moderator variables, namely Age, Gender, and Experience.

In the present study, the basic UTAUT2 model was used to identify the effect of each variable on behavioral intention in using Go-Pay *e*-money. It was modified by not examining the effect of behavioral intention on use behavior, and by eliminating the moderator of "experience" and replacing it with "income" as carried out by Indrawati and Haryoto (2015) and Putranto and Pramudiana (2015) in order to identify the effect of the socio-economic background of users on the intention and behavior of accepting Go-Pay as a payment system. The research framework is illustrated as follows:

Figure 1. Research Framework

Research Hypothesis

Based on the research framework, the hypotheses that will be tested and examined are as follows:

- H1 : Performance Expectancy (PE) affects behavioral intention
- H1a : Performance Expectancy (PE) affects behavioral intention moderated by Age
- H1b : Performance Expectancy (PE) affects behavioral intention moderated by Gender
- H2 : Effort Expectancy (EE) affects behavioral intention
- H2a : Effort Expectancy (EE) affects behavioral intention moderated by Age
- H2b : Effort Expectancy (EE) affects behavioral intention moderated by Gender
- H3 : Social Influence (SI) affects behavioral intention

- H3a : Social Influence (SI) affects behavioral intention moderated by Age
- H3b : Social Influence (SI) affects behavioral intention moderated by Gender
- H4 : Facilitating Condition (FC) affects behavioral intention
- H4a : Facilitating Condition (FC) affects behavioral intention moderated by Age
- H4b : Facilitating Condition (FC) affects behavioral intention moderated by Gender
- H5 : Hedonic Motivation (HM) affects behavioral intention
- H5a : Hedonic Motivation (HM) affects behavioral intention moderated by Age
- H5b : Hedonic Motivation (HM) affects behavioral intention moderated by Gender
- H5c : Hedonic Motivation (HM) affects behavioral intention moderated by Income
- H6 : Price Value (PV) affects behavioral intention
- H6a : Price Value (PV) affects behavioral intention moderated by Age
- H6b : Price Value (PV) affects behavioral intention moderated by Gender
- H6c : Price Value (PV) affects behavioral intention moderated by Income
- H7 : Habit (HT) affects behavioral intention
- H7a : Habit (HT) affects behavioral intention moderated by Age
- H7b : Habit (HT) affects behavioral intention moderated by Gender
- H7c : Habit (HT) affects behavioral intention moderated by Income.

Research Method

The present study is a causal research. It uses a quantitative research approach, in which it helps in generalizing the results of research based on statistical analysis. The population of this study was the inhabitants of the Special Region of Yogyakarta (DIY) who had used Go-Pay as the payment method. As a general rule, the minimum number of samples is at least five times more than the number of question items (indicators) that will be analyzed. In this study, there are 28 items of questions (indicators), so referring to the rule, the minimum sample size is 5x28 or equal to 140 respondents.

The sampling technique in this study is non-probability sampling. The respondents were selected through accidental sampling, in

which based on Sugiyono (2018) it involved the sample being drawn from that part of the population that is close to hand with a requirement the sample is perceived suitable as a source of data. Therefore, the respondents of this study were people who used Go-Pay a payment method and lived in the Special Region of Yogyakarta who were willing to fill out questionnaires.

The primary data was collected by using a questionnaire with a 5 point Likert scale as the instrument. Prior the implementation of this instrument, it was necessary to test the instrument. Hence a trial was carried out on the sample of where the population was obtained. As many as 30 respondents were involved in the preliminary

study (Sugiyono, 2018). Based on the result of the preliminary data, validity testing was done using the product-moment correlation while reliability testing was done using the Cronbach's alpha, with the assistance of IBM SPSS version 21. The results of validity and reliability testing verified that the instrument was valid and reliable.

In this study, there are 7 (seven) independent variables, 1 (one) dependent variable, and 3 (three) moderators. Independent variables include Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Condition, Hedonic Motivation, Price Value and Habit. The dependent variable is Behavioral Intention, while the moderators are age, gender, and income.

Table 1. Operational Definition of Variables

Variable	Definition	Indicator
Performance Expectancy (PE)	the degree to which using Go-Pay for transaction will provide benefits to consumers in continuously using it.	<ol style="list-style-type: none"> 1. I find Go-Pay useful in my daily life. 2. Using Go-Pay increases my chances of making payment. 3. Using Go-Pay helps me accomplish things more quickly. 4. Using Go-Pay increases my productivity.
Effort Expectancy (EE)	the degree of ease associated with consumers' willingness to use particular technology.	<ol style="list-style-type: none"> 1. Learning how to use Go-Pay is easy for me. 2. My interaction with Go-Pay is clear and understandable. 3. I find Go-Pay easy to use. 4. It is easy for me to become skillful at using Go-Pay.
Social Influence (SI)	the extent to which consumers perceive that people close and important to them believe they should use a particular technology	<ol style="list-style-type: none"> 1. People who are important to me think that I should use Go-Pay. 2. People who influence my behavior think that I should use Go-Pay. 3. Many people around me use Go-Pay.
Facilitating Condition (FC)	The availability of resources (facility and access) to use Go-Pay for transaction will affect consumer intention	<ol style="list-style-type: none"> 1. I have the resources/facility necessary to use Go-Pay. 2. I have the knowledge necessary to use Go-Pay. 3. Go-Pay is compatible with other technologies I use. 4. I can get help from others when I have difficulties using Go-Pay.
Hedonic Motivation (HM)	the perceived fun or pleasure derived from using Go-Pay will affect technology acceptance and use	<ol style="list-style-type: none"> 1. Using Go-Pay is fun. 2. Using Go-Pay is very entertaining 3. I prefer Go-Pay rather than cash for transaction.
Price Value (PV)	consumers' tradeoff between the perceived benefits of Go-Pay and the monetary cost for using them will affect the technology acceptance and use	<ol style="list-style-type: none"> 1. Go-Pay is reasonably priced. 2. The benefit of Go-Pay is a good value for the money. 3. Transaction with Go-Pay provides promotion with good value.
Habit (HT)	the extent to which consumer tend to perform behaviors automatically because of learning	<ol style="list-style-type: none"> 1. The use of Go-Pay has become a habit for me. 2. Using Go-Pay becomes a requirement for me. 3. I must use Go-Pay. 4. Using Go-Pay has a part of my daily life.

Variable	Definition	Indicator
<i>Behavioral Intention</i> (BI)	the extent to which consumer will use Go-Pay in the future	1. I intend to continue using Go-Pay in the future. 2. I will always try to Go-Pay in my daily life. 3. I plan to continue to use Go-Pay frequently.

The Structural Equation Modeling (SEM) using Partial Least Square (PLS) technique was used as the data analysis technique. It was processed using SmartPLS 2.0 M3. According to Wiyono (2011), PLS is a SEM technique which able to analyze latent variables, indicator variables, and direct measurement errors. It is a powerful analytical method because it can be applied to all data scales, it needs fewer assumptions, and its sample size must not be large. Even though PLS is widely used to confirm a theory, it is also used to explain whether there is a relationship between latent variables. Essentially, it is more focused on data and with a limited estimation procedure thus the model specification insignificantly affects parameter estimates (Ghozali, 2014).

Results and Discussion

There were 202 valid respondents whose results of questionnaire fulfilled the requirement and could be processed into further stage. The characteristics of respondents are detailed below.

Table 2. Characteristics of Respondents

Characteristics	N	Percentage
Gender		
Male	67	33,2%
Female	135	66,8%
Age		
16 – 25	76	37,62%
26 – 35	57	28,22%
36 – 45	52	25,74%
45 – 60	13	6,44%
> 60	4	1,98%
Income		
< Rp 2,500,000	82	40,59%
Rp 2,500,000 - Rp 5,000,000	67	33,17%
Rp 5,000,000 - Rp 7,500,000	24	11,88%
Rp 7,500,000 - Rp 10,000,000	10	4,95%
> Rp 10,000,000	19	9,41%

Source: Data, processed (2018)

Analysis using PLS was done through two stages, namely the measurement model (outer model) test and the structural model (inner model) test.

1. Outer Model (Measurement Model)

To evaluate the outer model with reflective indicators, three criteria were determined, i.e., convergent validity, discriminant validity, and composite reliability. Convergent validity of the measurement model with reflective indicators is identified from the correlation between the score of item/indicator and the score of construct (loading factor) as seen from the output of outer loading. Furthermore, the individual indicators are stated reliable if they have a correlation value above 0.70 (Ghozali, 2014).

Table 3. Convergent Validity based on Outer Loading

Indicator	Outer Loading	Indicator	Outer Loading
BI1	0.916	HT1	0.924
BI2	0.950	HT2	0.929
BI3	0.951	HT3	0.927
EE1	0.803	HT4	0.914
EE2	0.919	PE1	0.892
EE3	0.908	PE2	0.892
EE4	0.821	PE3	0.817
FC1	0.866	PE4	0.795
FC2	0.877	PV1	0.802
FC3	0.788	PV2	0.864
FC4	0.525	PV3	0.880
HMI	0.893	SI1	0.926
HM2	0.869	SI2	0.932
HM3	0.802	SI3	0.649

Source: Output of SmartPLS 2.0 M3

Table 3 shows that there are two indicators with the score of outer loading less than 0.70, i.e., SI3 and FC4, thus these indicators are invalid. Therefore, they are omitted from the model for further measurement. Discriminant validity of reflective indicator is identified from the cross-loading between indicators and their constructs. The output of the SmartPLS 2.0 M3 shows that the latent construct correlation predicts the indicators on their block better than those of another block.

Another test is done to assess the validity of the construct by examining the average variance extracted (AVE), in which the AVE of each construct in an eligible model should be greater than 0.50. In

addition to the validity test, the reliability test for the construct is necessary. It is measured by two criteria, i.e., composite reliability and Cronbach's alpha of a block of indicators that measures the construct. A construct is declared reliable if the composite reliability value and Cronbach's alpha are above 0.70 (Ghozali, 2014).

Table 4. The Value of AVE, Composite Reliability and Cronbach's Alpha

	AVE	Composite Reliability	R Square	Cronbach's Alpha
BI	0.882	0.957	0.736	0.933
EE	0.746	0.921		0.887
FC	0.746	0.898		0.829
HM	0.732	0.891		0.817
HT	0.853	0.959		0.943
PE	0.723	0.913		0.872
PV	0.722	0.886		0.808
SI	0.933	0.965		0.928

Source: Output of SmartPLS 2.0 M3

Table 4 shows that the AVE of each construct is greater than 0.50, while the composite reliability

and Cronbach's alpha of each construct are greater than 0.70. So, it can be proven that the constructs are valid and reliable.

2. Inner Model (Structural Model)

The structural model is tested by examining the R-square or a goodness-fit test. The R-square is 0.736 thus it can be interpreted that 73.6% of the variability of Behavioral Intention (BI) can be explained by Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Condition, Hedonic Motivation, Price Value and Habit. Meanwhile, the remaining 26.4% is explained by other variables excluded from this study.

The second test is done to identify the significance of the influence of performance expectancy, effort expectancy, social influence, facilitating condition, hedonic motivation, price value and habit on behavioral intention. It is indicated by the parameter coefficient and the significance value of t-statistics. Subsequently, the bootstrapping procedure is carried out to determine the significance of path coefficients.

Table 5. Path Coefficient and T-Statistics

	Path coefficient	T-Statistics (O/STERR)	Description
PE -> BI	-0.017	0.281	Rejected
EE -> BI	-0.011	0.201	Rejected
SI -> BI	0.052	0.726	Rejected
FC -> BI	0.159	2.535	Accepted
HM -> BI	0.087	1.075	Rejected
PV -> BI	0.122	2.113	Accepted
HT -> BI	0.596	7.433	Accepted

Source: Output of SmartPLS 2.0 M3

The results of inner model testing show that there are three accepted hypotheses with t-value greater than 1.960, i.e., the variable of Habit with the highest value of 7.433, Facilitating Condition with a value of 2.535, and Price Value with a value of 2.113. These values indicate that Habit, Facilitating Condition, and Price Value have a positive effect on behavioral intention in using Go-Pay. On the contrary, four hypotheses are rejected because the t-value of each hypothesis is less than 1.96. The rejected variables are Performance Expectancy, Effort Expectancy, Social Influence, and Hedonic Motivation.

The variable of habit is the most significant

factor that affects behavioral intention in using Go-Pay. It implies that consumers who have applied Go-Pay making this payment method as a habit. Subsequently, this habit makes them addicted in using Go-Pay. It becomes a necessity for the option of having non-cash payment transactions. Since using Go-Pay becomes a routine, consumers will adopt it as a habit thus increasing the behavioral intention to continually using Go-Pay, even a necessity.

In this study, the effect of moderators of age, gender, and income toward the relationship between variables is also investigated. The values of the moderators are demonstrated in Table 6 below.

Table 6. The Moderators

Relationship of variables	T-statistic value of moderator		
	Gender	Age	Income
PE → BI	0.143	0.134	-
EE → BI	1.123	3.043	-
SI → BI	1.293	0.233	-
FC → BI	0.663	3.359	1.539
HM → BI	0.526	0.253	0.473
PV → BI	0.206	0.999	0.285
HT → BI	1.227	0.628	0.673

Source: Data, processed (2018)

From Table 6, age becomes the only moderator which t-statistic value greater than 1.96, so it can be interpreted that relationship between Facilitating Condition and Effort Expectancy with behavioral intention in using Go-Pay is moderated by age. Meanwhile, gender and income do not moderate that relationship.

Conclusion

An analysis on the research data of the factors that affect behavioral intention in using Go-Pay e-money using a modified model of the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2) has been carried out. The following conclusions can be drawn:

1. Habit, Facilitating Condition, and Price Value have a significant effect on the behavioral intention of consumers in the Special Region of Yogyakarta in using Go-Pay as the payment method.
2. Performance Expectancy, Effort Expectancy, Social Influence, and Hedonic Motivation have an insignificant effect on the behavioral intention of consumers in the Special Region of Yogyakarta in using Go-Pay as the payment method.
3. The relationship between Facilitating Condition and Effort Expectancy with the behavioral intention in using Go-Pay is moderated by age, but not by gender and income.

4. The test with goodness-fit model obtains a value of R-square of 0.736, so it can be interpreted that the variables of Performance Expectancy, Effort Expectancy, Social Influence, Facilitating Condition, Hedonic Motivation, Price Value and Habit explain 73.6% of the variability of Behavioral Intention. Meanwhile, the remaining 26.4% is explained by other variables outside this study.

As a follow-up to the conclusions drawn from the findings of this study, it is recommended for further researchers to add other variables that are considered feasible in the technology acceptance model in order to develop and divulge the factors that affect behavioral intention in using e-money products, i.e., security, trust, and risk. In addition, further study can examine the use of e-money in general since there are several e-money operators with license from Bank Indonesia as the object of the research, and take larger samples instead of only Go-Pay users in the Special Region of Yogyakarta. Therefore, the findings will be more comprehensive. Furthermore, the Go-Jek company as the operator of Go-Pay should be able to improve services and innovations such as by adding benefits and facilities for consumers hence they can enjoy using Go-Pay and make it as a habit. Based on the finding of this study, habit is the most significant factor that determines behavioral intention in continually using Go-Pay.

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