



THE ANTECEDENT OF INTENTION TO USE T-CASH IN DENPASAR CITY, INDONESIA

Hana Yana Risakotta 

Graduate Program, Faculty of Economics and Business,
Udayana University, Indonesia
hana.yana1810@gmail.com

I Putu Gde Sukaatmadja

Graduate Program, Faculty of Economics and Business,
Udayana University, Indonesia

Abstract

The purpose of this study is to explain the effect of perceived usefulness, perceived ease of use, and attitude toward using on behavioral intention to use T-cash in Denpasar City, Indonesia. Purposive sampling was used with a total of 112 samples and as much as 16 indicators used to measure the research instrument. Data collected through Google form and direct questionnaire distribution with Likert scales. Data were analyzed using SEM PLS analysis tools. The results showed that perceived usefulness and perceived ease of use had a positive and significant effect on attitude toward using. Attitude toward Using has positive and significant effect on Behavioral Intention to Use. Perceived Usefulness and Perceived Ease of Use does not significantly affect behavioral intention to use. Perceived Ease of Use has a positive and significant effect on Perceived Usefulness. Attitude towards Using act as a full mediator between Perceived Usefulness and Perceived Ease of Use towards Behavioral Intention to Use.

Keywords: Perceived Usefulness, Perceived Ease of Use, Attitude toward Using, Behavioral Intention to Use

INTRODUCTION

The development of communication technology in the recent era is experiencing a very rapid progress—a more convenience and practical for people. No wonder people are relied on the communication technology offered by service provider. A non-cash payment instrument is issued in order to providing a better transaction process called as Electronic Money (*e-Money*). This is stated in Bank Indonesia Regulation Number 11/12 / PBI / 2009 where e-money is a payment instrument issued on the basis of the value of money that was deposited in advance by the holder to the issuer. According to Waspada (2012), e-Money is a payment instrument issued on the basis of the value of money deposited in advance by the holder to the issuer, where the value of money is stored electronically in one media or server that is used as a means of payment to merchants.

The existence of e-Money in Indonesia has been a long time but still lack of socialization, over time the electronic money in Indonesia continues to grow (Juhuri & Dewi, 2017). Based on statistical data from Bank Indonesia, electronic money transactions in Indonesia have increased every year starting from 2013 on the amount 137,9 million transactions until in 2018 reach 2.922,6 million transactions. This shows that people are starting to respond the existence of electronic money.

Telkomsel as one of the telecommunications company issued a solution for e-Money systems with T-cash products. T-cash is an electronic money service that can be used by all Telkomsel and non-Telkomsel customers for all transactions using only an application anytime and anywhere. Some previous studies using the TAM model, Rocker (2009) stated that perceived usefulness and perceived ease of use affect the attitude toward using and behavioral intention to use. In contrast to Akturan & Tezcan (2012), states that perceived usefulness do not affect behavioral intentions to use m-banking.

Wibowo et al. (2015), shows that the perceived usefulness has a positive and significant effect on the intention to use e-money. In contrast Gunawan (2014) found that the perceived usefulness had no significant effect on the intention to use internet banking. Rauniar et al. (2014) and Phonthanukitithaworn et al. (2016) stated that the ease of use has an influence in shaping perceived usefulness. Shanmugam et al. (2014), states that attitudes towards using banking mediate the relationship between perceived usefulness and behavioral intentions to use mobile banking in Malaysia. Wirahutomo (2017) also found that attitude toward using are able to mediate the perceived ease of use and behavioral intention to use.

There are some other telecommunications operators such as XL, Indosat, and Smartfren that also issued electronic money services, but did not last long. Telkomsel as a pioneer of T-cash is also not regardless from ups and downs. The biggest challenge faced is the low

intention of the public to adopt a new financial technology services, but this does not discourage T-cash from continuing to innovate. The presence of 4G network ensure that T-cash will become one of the people's choices in digital transactions with hope to create a payment system that efficient, safe, and reliable. This study was aim to determine the effect of perceived usefulness, perceived ease of use, attitudes toward using towards behavioral intention to use T-cash in Denpasar City.

LITERATURE REVIEW

Theory of Reasoned Action

Theory of Reasoned Action (TRA) by Fishbein and Ajzen (1975), developed to explain how consumers lead to certain purchasing behaviors, it confirms that attitudes toward purchases and subjective norms are antecedents of behavior. Lada et al. (2009) claiming that according to TRA, someone intention is a function of two basic determinants, which are personal and the other reflects social influence. Personal factors are positive or negative evaluations of individuals when performing behavior, called attitude towards behavior.

Perceived Usefulness

Perceived usefulness is someone perception or belief that using a particular system can improve their performance (Mafe et al., 2009). Rigopoulos and Askounis (2007) stated that it can be measured by several indicators such as fast payment process, increased payment accuracy, safer, attractive promotions, and efficiency in transactions. Kurniawan et al. (2013) said that perceived usefulness is the level where a person in using a particular system believes that it can improve his performance and relate to the benefits received.

Perceived Ease of Use

Perceived ease of use is based on the extent to which prospective users expect that the new system used is free from difficulties and does not require a large effort to use it. Davis et al. (1989), provides indicators of perceived ease of use, namely ease of learning, controlled technological systems, individual interactions by using clear and easy to understand system, flexible technological systems, increased skills, and easy to use. Rocker (2009) measured perceived ease of use by the ease of understanding, practical use, and flexibility.

Attitude toward Using

Attitude is part of positive or negative feelings that comes from the perceived usefulness and perceived ease of use that will affect the intention to use a product (Peslak et al., 2010). Taylor

and Todd (1995) said that attitude toward using variables can be measured with indicators which are acceptance attitude, rejection attitude, and pleasant experience. Mayasari et al. (2011), states that attitudes can be measured using several indicators namely, happy, trusting, satisfied, desire to use and decision to use.

Behavioral Intention to Use

Behavioral Intention to Use is a person desire to perform a certain behavior. Taylor and Tood (1995) stated that it can be measured with indicators that are intention, plan and action. Rigopoulos and Askounis (2007), and Peslak et al. (2010) said that behavioral intention to use is measured by the use of internet banking, which is always needed in every transaction to motivate customers to make transactions. According to Suki & Ramayah (2010), the intention to use can be measured by several indicators namely intention to use, the possibility to use, and want to use of a product.

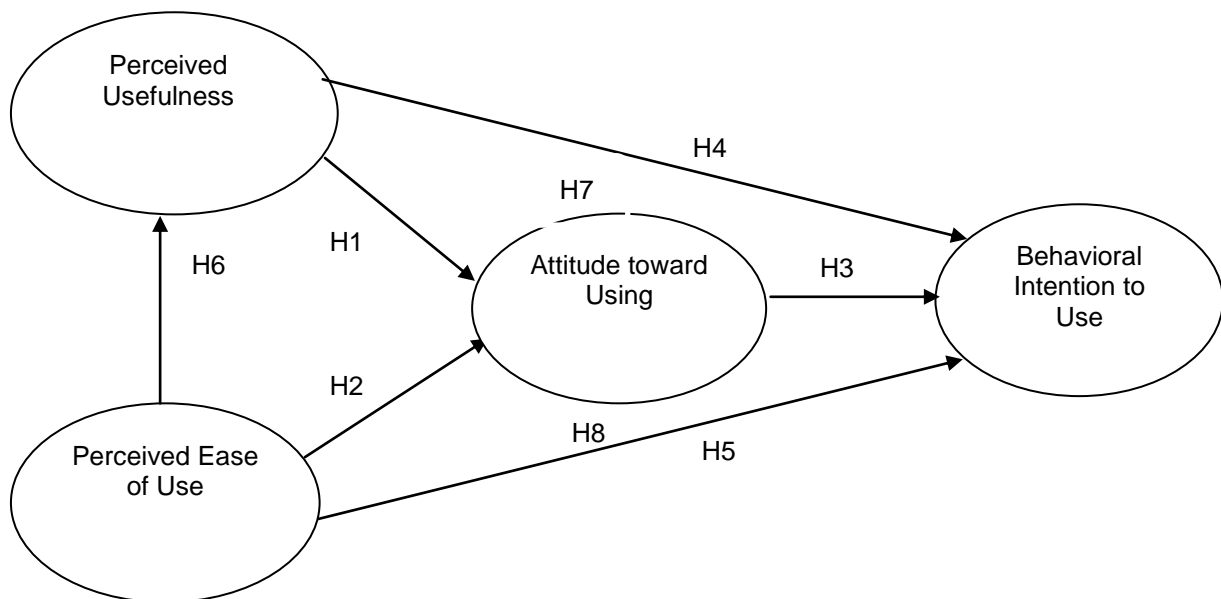


Figure 1. Conceptual Framework

Effect of Perceived Usefulness on Attitude toward Using

Research conducted by Alagoz and Hekimoglu (2012) and Yadav et al. (2015) found that perceived usefulness had a positive and significant effect on attitude toward using. Similar results were also found by Ma et al. (2017). Shanmugam et al. (2014), states that perceived usefulness has a positive effect on attitudes using mobile banking.

H1: Perceived usefulness has a positive and significant effect on attitude toward using.

Effect of Perceived Ease of Use on Attitude toward Using

Mazhar et al. (2014), get the result that perceived ease of used has a positive effect on a person attitude in using mobile and internet banking. Several studies conducted by Hsiao & Tang (2014), Dakduk et al. (2017), and Xie et al. (2017) found that perceived ease of use has a positive and significant effect on attitude toward using.

H2: Perceived ease of use has a positive and significant effect on attitude toward using.

Effect of Attitude toward Using on Behavioral Intention to Use

Juwaheer and Ramdin (2012) state that there is a significant direct effect between attitudes towards intention to use internet banking. Dakduk et al. (2017) found that attitude has a positive and significant effect on intention. Shanmugam et al. (2014) also said that there is a positive effect between attitudes on behavioral intention to use mobile banking in Malaysia.

H3: Attitude toward using positive and significant effect on behavioral intention to use.

Effect of Perceived Usefulness on Behavioral Intention to Use

Giovanis et al. (2012) and Safeena et al. (2013) found that perceived usefulness had a positive and significant effect on consumer intentions. According to Farmani et al. (2012) there is a significant effect between perceived usefulness with the intention to use the technology. Mangin et al. (2012) states that there is a significant positive effect between perceived usefulness and intention to use online banking in North America.

H4: Perceived usefulness has a positive and significant effect on behavioral intention to use

Effect of Perceived Ease of Use on Behavioral Intention to Use

Islam et al. (2013) found that there is is a significant effect between the perceived ease of use on the intention to use sophisticated cellular phone services. According to Juhri&Dewi (2017) perception of the easiness to use affects the intention to use T-cash mobile money. In contrast Gunawan (2014) found that perceived ease of use had no significant effect towards the intention to use internet banking.

H5: Perceived ease of use has a positive and significant effect on behavioral intention to use.

Effect of Perceived Ease of Use on Perceived Usefulness

Perceived ease of use has an influence in shaping perceived usefulness stated by Rauniar et al. (2014) and Phonthanukitithaworn et al. (2015). According to Liu et al. (2016) perceived ease of use positively affects the perceived usefulness of mobile payment in Vietnam.

H6: Perceived ease of use has a positive and significant effect on perceived usefulness.

The Role of Attitude toward Using in Mediating Perceived Usefulness on Behavioral Intention to Use

Shanmugam et al. (2014) states the effect between perceived usefulness and behavioral intentions to use mobile banking in Malaysia are significantly mediate by attitudes towards using. Hosseini et al. (2015) found the similar result regarding attitude towards m-banking. According to Novita (2016), the intention to use i-banking in Denpasar can be affected by perceived usefulness and attitudes as partial mediating variables.

H7: Attitude toward using play a significant role in mediating perceived usefulness on behavioral intention to use

The role of Attitude toward Using in mediating Perceived Ease of Use on Behavioral Intention to Use

Wirahutomo (2017) states that the Attitude towards Using significantly mediate the perceived ease of use on behavioral intention. Arimbawa et al. (2017) found that user attitudes have an influence on user intentions which can become variables that mediate the relationship between user perceptions and user intentions to use new products.

H8: Attitude toward using acts as a mediating perceived ease of use of behavioral intention to use

RESEARCH METHOD

To achieve research objectives, a descriptive research design was adopted. A non-probability sampling was use because certain considerations in determining the sample (Rahyuda, 2016; 145). The sample determined at least 5-10 times the number of indicators written (Sugiyono, 2016; 74). This study uses 16 indicators and 112 samples with 56 respondents are Telkomsel user and 56 respondents are non-Telkomsel user. The sampling technique in this study specifically used purposive sampling. This technique was chosen because there are requirements that must be taken into consideration namely those who live permanently in Denpasar City-Indonesia, people who have at least high school or equivalent education because this education is considered to have good knowledge, those who know about T-cash products and have not used T-cash products before. The instrument used in this study was a questionnaire and an interview. Statement items are measured with a Likert scale. Data analysis used is the Partial Least Square (PLS) approach.

The questionnaire are consists of statement of 4 variables that adopted from some sources. Perceived Usefulness (X_1) consists of 4 indicators adopted by Taylor and Todd (1995b), Mafe et al. (2009), Rucker (2009), Rigopoulos & Askounis (2007). Perceived ease of

use (X_2) stand for 4 indicators taken from Rigopoulos & Askounis (2007), Davis (1989), and Rucker (2009). Attitude toward using (Y_1) consists of 4 indicators adopted from Taylor & Todd (1995b), Bhattacharjee (2000), Rucker (2009), and Peslak et al. (2010). Behavioral intention to use (Y_2) consist of 3 indicators taken from Taylor dan Todd (1995b), Rigopoulos & Askounis (2007), and Peslak et al. (2010).

ANALYSIS AND RESULTS

Table 1. Characteristics of Respondents

No	Variables	Category	Amount (people)	Percentage (%)
1	Age (Year)	19-24	79	71
		25-39	31	28
		40-50	0	0
		>50	2	1
		Total	112	100
2	Sex	Male	55	50
		Female	57	50
		Total	112	100
3	Education	High school	61	55
		Associate Degree	6	5
		Bachelor	42	37
		Graduate	3	3
		Total	112	100
4	Occupation	Student	64	58
		Officer	27	24
		Entrepreneur	7	6
		Other	14	12
		Total	112	100
5	Telephone Service Provider	Telkomsel	56	50
		XI/Axis	27	24
		Indosat	16	14
		Tri	12	11
		Smartfren	1	1
		Total	112	100

Based on age category most respondents are at age 19-24 as much as 71 percent. Based on gender, female and male respondents are at the same amount. Based on the respondent latest education, it can be seen that respondent on high school level has the highest percentage of 55 percent. Based on the type of work, it can be seen that students have the highest percentage of 58 percent. Based on telephone service provider, it can be seen that Telkomsel and non-Telkomsel operators have the same percentage of 50 percent.

Validity test aims to check whether the contents of the questionnaire are fit to be measured and understood by all respondents. Instruments are valid if the correlation (r) \geq 0.30. Table 2 shows that 16 indicators value are greater than 0.3 so the overall indicator used is valid.

Table 2. Instrument Validity Test

No.	Variable	Indicators	Pearson correlation	Information
1	<i>Perceived Usefulness</i>	X1.1	0,816	Valid
		X1.2	0,724	Valid
		X1.3	0,757	Valid
		X1.4	0,719	Valid
		X1.5	0,812	Valid
2	<i>Perceived Ease of Use</i>	X2.1	0,786	Valid
		X2.2	0,840	Valid
		X2.3	0,859	Valid
		X2.4	0,806	Valid
3	<i>Attitude Toward Using</i>	Y1.1	0,906	Valid
		Y1.2	0,911	Valid
		Y1.3	0,924	Valid
		Y1.4	0,817	Valid
4	<i>Behavioral Intention of Use</i>	Y2.1	0,926	Valid
		Y2.2	0,916	Valid
		Y2.3	0,929	Valid

Reliability test shows the how measurement tools produce consistent output if the measurements are taken again on the same subject. Reliability of a construct is categorized to be good if it has a Cronbach's Alpha value greater than or equal to 0.60 (Sugiyono, 2018: 365). Table 3 shows that all variables has Cronbach's Alpha value greater than 0.60 that means that the data collection instrument is reliable.

Table 3. Instrument Reliability Test

Variable	Cronbach's Alpha	Information
Perceived Usefulness	0,824	Reliable
Perceived Ease of Use	0,840	Reliable
Attitude Toward Using	0,912	Reliable
Behavioral Intention of Use	0,912	Reliable

This study uses a variance based or component based approach model with the Partial Least Square (PLS) method. The structural model of the effect between latent variables is called the inner model, while the measurement model is called the outer model. The stability of this estimate is evaluated using a t-statistic test. Test results can be described as follows in the figure 2.

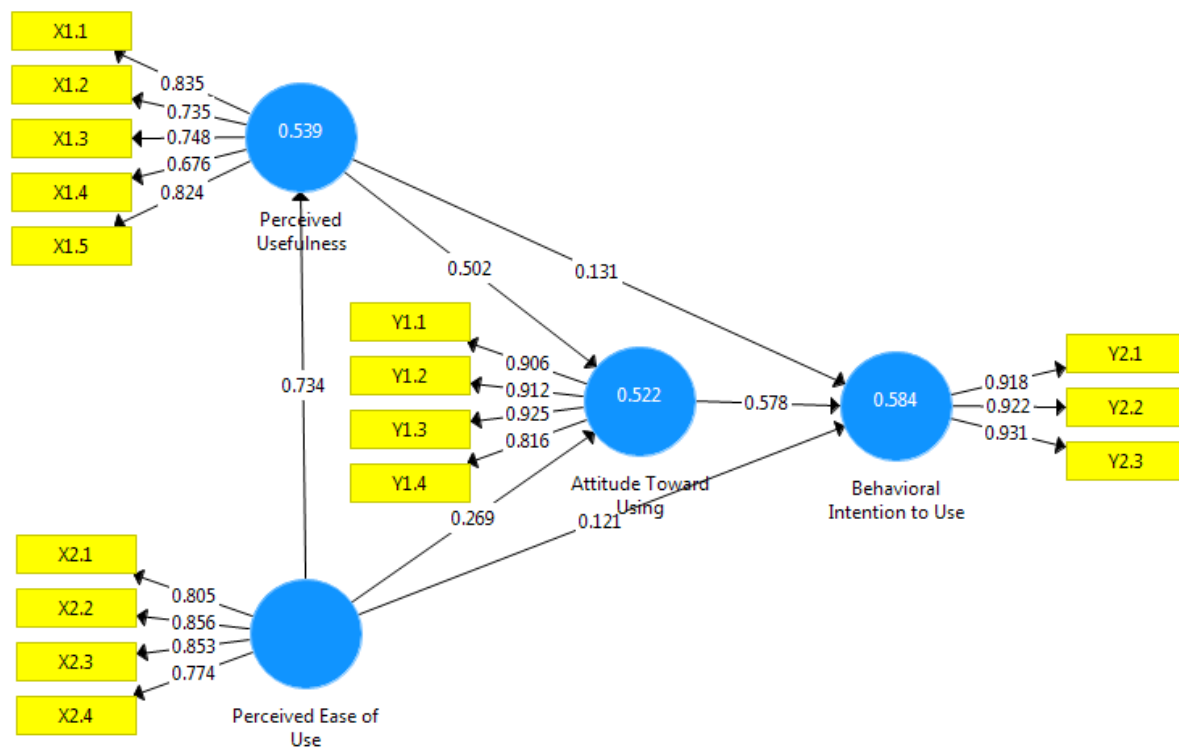


Figure 2. Partial Least Square Result Analysis

PLS statistical testing of every relationship is done using the bootstrap method of the sample. Bootstrap testing is intended to minimize the problem of research data abnormalities. Bootstrapping test results from PLS analysis can be seen in Table 4.

Table 4. Hypothesis testing with *Partial Least Square*

Hypothesis	Relationship between Variables	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	t Statistics (O/STDEV)	P Values
H1	(X1) → (Y)	0,502	0,521	0,094	5,336	0,000
H2	(X2) → (Y)	0,269	0,225	0,098	2,757	0,006
H3	(Y) → (Z)	0,578	0,571	0,087	6,645	0,000
H4	(X1) → (Z)	0,131	0,135	0,103	1,265	0,207
H5	(X2) → (Z)	0,121	0,122	0,101	1,202	0,230
H6	(X2) → (X1)	0,734	0,738	0,037	19,873	0,000

The Effect of Perceived Usefulness on Attitude Toward Using T-Cash

A direct effect of perceived usefulness on attitude toward using T-cash with a significance of 0,000 which is smaller than the cut-off value ($0,000 < 0.05$) means that H1 is accepted or it can be said that perceived usefulness has a positive and significant effect on attitude toward using T-cash. These also mean that the more consumer feel that T-cash is useful, the more positive their attitude to use T-cash as an electronic payment instrument.

The result is consistent with the indicators of perceived usefulness namely T-cash can speed up the payment transaction process, it helps consumers to improve accuracy during the payment, it provides a sense of security when making the payment, it provides attractive promotions at their merchant, and it also provides efficiency and practicality to be cashless. The results of this study are in accordance with the results of previous studies conducted by Alagoz&Hekimoglu (2012), Yadav et al. (2015) and Shanmugam et al. (2014) that perceived usefulness has a positive effect on attitudes using a product.

The Effect of Perceived Ease of Use on Attitude toward Using T-Cash.

The direct effect of perceived ease of use on attitude toward using T-cash with a significance value of $0.006 < 0.05$ means that H2 is supported or it can be stated that there is a positive and significant effect between perceived ease of use on attitude toward using T-cash. These also mean that the more a consumer feels that it easy to operate T-cash, the more someone will have a positive attitude towards it.

The result is consistent with the indicators of perceived ease of use that is the easiness when it comes to operate T-cash, easiness to learn how to use, provides practical ways when

using it, and the flexibility in transactions process. The results of this are in line with Mazhar et al. (2014), Hsiao & Tang (2014), Dakduk et al. (2017), and Xie et al. (2017) who found that perceived ease of use has a positive and significant effect on attitude toward using.

The Effect of Attitude toward Using on Behavioral Intention to Use T-Cash.

Based on Table 4, the significance value on the effect of attitude toward using on behavioral intention to use is 0,000 which is smaller than 0.05. This means that H3 is accepted or the effect between attitude toward using on behavioral intention to use using T-cash is positive and significant. It also mean that the more consumer has a positive attitude toward T-cash, the more they intends to use T-cash as an electronic payment instrument.

The attitude toward using variable consists of indicators, namely, potential consumers want to continue to use T-cash in transactions, T-cash is considered useful because consumers feel the benefits of doing transactions in daily activities, consumers get good benefits in dealing with T-cash, and consumers feel happy because of the many benefits obtained when using T-cash. The results support previous studies conducted by Juwaheer and Ramdin (2012), Yadav et al. (2015), Xie et al. (2017), and Dakduk et al. (2017) who found that attitude has a positive and significant effect on intention.

The Effect of Perceived Usefulness on Behavioral Intention to Use T-Cash.

Table 4 shows direct effect between perceived usefulness and behavioral intention to use T-cash. The significance value is 0,207 which is greater than 0.05 that means H4 is rejected. There is no significant effect between perceived usefulness of behavioral intention to use T-cash. These results give the sense that the perception of the usefulness do not increase or reduce consumer intention to use T-cash.

Based on the results of questionnaires distribution accompanied by interviews, it is found that several respondents who believe that the usefulness of T-cash still not able to provide much benefits to consumers, mainly because the coverage are still limited at selected merchant so consumers can not fully using t-cash as their daily payment transaction. The results of this study are consistent with the results of previous studies conducted by Akturan&Tezcan (2012) stating that perceived usefulness does not affect behavioral intentions to use m-banking. Mayasari et al. (2011) also found that there is no significant effect on perceived usefulness variables on consumer intention to use internet banking. The same study was also found by Mallat et al. (2009), and Hidayat (2010), who found that the perceived usefulness variable did not have a positive effect on behavioral intention to use the mobile web.

The Effect of Perceived Ease of Use on Behavioral Intention To Use T-Cash

The direct effect of perceived ease of use on behavioral intention to use T-cash in Table 4 shows the significance value of $0.230 > 0.05$ that means that H5 is rejected or here is no positive and significant effect between perceived ease of use on behavioral intention to use T-cash. These results give the sense that the size of the perception of ease of use will not increase or reduce consumer intention to use T-cash.

Based on the results of the distribution of questionnaires accompanied by interviews, several respondents have perception that the easiness to use T-cash do not able to build the intention to use because the network trouble often occur when they want to make a transaction on the merchant. The results of this study are consistent with Chau (1996) who found that the perceived ease of use had no significant effect on behavioral intentions in using a system. Same as Gunawan (2014) who stated that the perception of easiness to use had no significant effect on interest in using internet banking

The Effect of Perceived Ease of Use on The Perceived Usefulness of T-Cash

The direct effect of perceived ease of use on perceived usefulness with a significance value of $0,000 < 0.05$ means that H6 is accepted. There is a positive and significant effect between perceived ease of use on the perceived usefulness of using T-cash. The more consumer feels that it is easy to use T-cash, the more they perceived that it would be beneficial for them. The results of this study are consistent with the previous studies conducted by Rauniar et al. (2014) and Phonthanukitithaworn et al. (2015) who found that perceived ease of use had a positive and significant effect on perceived usefulness. Liu et al. (2016) also stated that perceived ease of use positive and significantly affects the usefulness of mobile payment in Vietnam.

The Role of Attitude toward Using in Mediating Perceived Usefulness on Behavioral Intention to Use

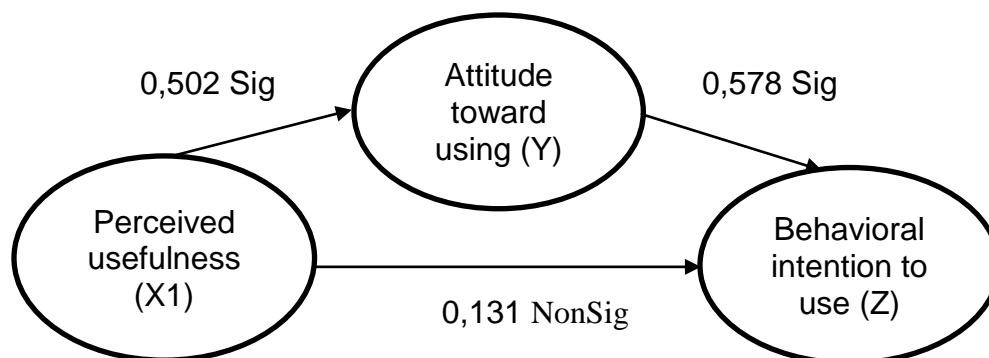


Figure 3. PLS Result Diagram 1

Figure 3 shows that the attitude toward using is able to fully mediate perceived usefulness on behavioral intention to use. The direct effect of perceived usefulness on behavioral intention to use is not significant so the behavioral intention to use is only affected by perceived usefulness through the mediation of attitude toward using. These results give the sense that attitude has an important role to create consumer intention, because if someone feel the usefulness of T-cash, it will create positive attitude towards the T-cash and the intention to use T-cash as an electronic payment instrument also increased.

The results of this study are consistent with Shanmugam et al. (2014) who states that attitudes towards mobile banking mediate the relationship between perceived usefulness and behavioral intention to use mobile banking in Malaysia. Osseini et al. (2015) states that perceived usefulness has a positive relationship with the intention to use m-banking mediated by attitudes towards m-banking. Novita (2016) said that the intention to use internet banking in Denpasar can be influenced by perceived usefulness and attitudes partially as mediating variables.

The Role of Attitude toward Using in Mediating Perceived Ease of Use on Behavioral Intention to Use

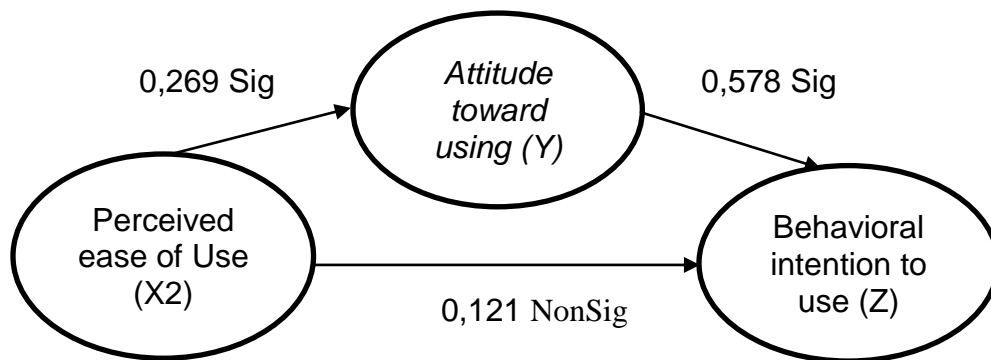


Figure 4. PLS Result Diagram 2

Figure 4 shows that the attitude toward using is able to fully mediate perceived ease of use on behavioral intention to use. The insignificant direct effect between perceived usefulness on behavioral intention means that the behavioral intention to use is only affected by perceived ease of use through the mediation of attitude toward using. If consumer perceived T-cash can be used easily and user friendly, they will create positive attitude towards the T-cash and followed by the intention to use T-cash as an electronic payment.

The results of this study are consistent with the results of previous studies conducted by Wirahutomo (2017), stating that attitude toward using positively and significantly mediates

perceived ease of use (behavioral intention). Arimbawa et al. (2017), found that user attitudes have an influence on user intentions which can then become variables that mediate the relationship between user perceptions and user intentions to use new products.

CONCLUSION AND SUGGESTIONS

Based on the finding above, some conclusions has been obtained which are perceived usefulness and perceived ease of use had a positive and significant effect on attitude toward using. Attitude toward using has positive and significant effect on behavioral intention to use. Perceived ease of use has a positive and significant effect on perceived usefulness. Perceived usefulness and perceived ease of use does not significantly affect behavioral intention to use and since both of them are not significant so the attitude towards using act as a full mediator between perceived usefulness and perceived ease of use towards behavioral intention to use.

Since the attitude toward using variable play a full mediation role between perceived usefulness and perceived ease of use on behavioral intention to use, the suggestion that could be given in order to enhance and maintain the behavioral intention to use is to focusing on forming consumer attitude toward T-Cash as their cashless payment method. It is because the behavior can't be formed if attitude has not been set up. The attitude itself can be form through the increased of socialization about how ease and useful it is when consumer using T-Cash, it can be through intensive advertising or incessant personal selling in T-cash pop up store. The T-Cash staff must be able to convincing consumer that there will be an easier and beneficial way when they are using T-Cash as their daily payment. Attractive promos also became a good way to increase the consumer awareness and willingness to try using T-cash.

Future research should be considered to conduct research in different area that are implementing cashless society with a broader scope and adding other variables that are affect behavioral intention to use T-cash but not examined in this study like e-trust, technology acceptance model or subjective norms.

REFERENCES

- Ajzen. (1980). The Theory of Planned Behavior, *Organizational Behavior and Human Decision Processes*. Academia Press. Inc, 50(2), 179-211.
- Akturan, U. &Tezcan, N. (2012). Mobile Banking Adoption of The Youth Market Perceptions and Intentions, *Marketing Intelligence & Planning*, 30(4), 444-459.
- Alagoz&Hekimoglu. (2012). A Study on TAM: Analysis of Customer Attitudes in Online Food Ordering system. *Procedia – Social and Behavioral Sciences*, 6(2), 1138-1143.
- Arikunto, S. (2013). *ProsedurPenelitian: SuatuPendekatanPraktik*. Jakarta: RinekaCipta.
- Arimbawa, P. A. P, Surachman, & Hussein A. S. (2017). PengaruhPersepsidanSikapPemainterdhadapNiatMenggunakan Mobile Game Menggunakan Technology Acceptance Model. *JurnalIlmiahManajemen*, 7(3), 348-362.

- Bhattacharjee, A. (2000). Acceptance of e-Commerce Service: The Case Of Electronic Brokerages, IEEE Transactions on System, Man, and Cybernetics-part. A System Humans, 20(4), 411-420.
- Chau, P. Y. K. (1996). An Empirical Assessment of A Modified Technology Acceptance Model. Journal of Management Information System, 12(2), 185-204.
- Chen, S., Shing, L, &Chien, L. (2011). Recent Related Research in Technology Acceptance Model: A Literature Review. Australian Journal of Business and Management Research, 1(9), 124-127.
- Dakduk, S., Enrique, H., Zuleyma S., German M, & Jose M. 2017. Customer Behavior In Electronic Commerce: A Bayesian Approach. Journal of Theoretical and Applied Electronic Commerce Research, 12(2), 1-20.
- Davis, F. D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. MIS Quarterly, 13(3), 319-340.
- Farmani, M., Kimiaee, A., &Fatollahzadeh, F. (2012). Investigation of Relationship between Ease of Use, Innovation Tendency, Perceived Usefulness and Intention to Use Technology: An Empirical study, Indian Journal of Science and Technology, 5(11), 3678-3682.
- Fishbein&Ajzen. (1975). Belief, Attitude, Intentions and Behavior: An Introduction to Theory and Research. California: Addison-Wesley Publishing Company, Inc.
- Giovanis, A. N., Binioris, S. & Polychronopoulos, G. (2012). An Extension of TAM Model with IDT and Security or Privacy Risk in the Adoption of Internet Banking Service in Greece. EuroMed Journal of Business, 7(1), 24-53.
- Gunawan, A. (2014). Aplikasi Technology Acceptance Model PadaMinatNasabahUntukMenggunakan Internet Banking, Jurnal Nominal, 3(2), 55-74.
- Hidayat. R. (2010). Faktor-faktor yang MempengaruhiNiatMenggunakan Mobile Web olehMahasiswa: StudiEmpirisPadaMahasiswa FEB UGM Yogyakarta. FakultasEkonomikadanBisnisUniversitasGadjahMada.
- Hosseini, M.H., Fatemifar, A. &Masoumeh, R. (2015). Effective Factors of the Adoption of Mobile Banking Service by Costomers. Journal of Business Management, 4(6), 1-13.
- Hsiao, C.H., & Tang, K.Y. (2014). Explaining Undergraduates Behavior Intention of E-textbook Adoption, Library Hi Tech, 32(1), 139-163.
- Islam, M Z., Low, P. K. C., & Hasan, I. (2013). Intention to Use Advanced Mobile Phone Services (AMPS), Management Decision, 51(4) 824-838.
- Juhri, K., &Dewi, C.K. (2017). KepercayaanandanPenerimaanLayanan Mobile Money T-cash di Bandung denganpendekatan Technology Acceptance Model (TAM). Jurnal Pro Bisnis, 10(1), 44-47.
- Juwaheer, T. D., Pudaruth, S. &Ramdin, P. 2012. Factors Influencing The Adoption of Internet Banking: A Case Study of Commercial Banks in Mauritius. World Journal of Science, Technology and Sustainable Development, 9(3), 204-234.
- Kim, H, J., Lee, S. J., & Shin, C. (2013). Design and Implementation of In-House Electronic Money Using Java Cards. International Journal of Smart Home, 7(5), 103-114.
- Kurniawan, D., Samuel, H., &Japarianto, E. (2013). AnalisisPenerimaanNasabahTerhadapLayanan Mobile Banking DenganMenggunakanPendekatanTecnology Acceptance Model dan Theory Of Reason Action, JurnalManajemenPemasaran, 1(1), 1-13.
- Lada, S., Amin, H., &Tanakinjal, G. H. (2009). Predicting intention to choose halal products using theory of reasoned action. International Journal of Islamic and Middle Eastern Finance and Management. 2(1), pp. 66-76.
- Liu, G., & Tai, P. T. (2016). A Study of Factors Affecting the Intention to Use Mobile Payment Services in Vietnam. Economics World, 4(6), 249-273.
- Ma, Y, J., Gam H, J., & Jennifer B. (2017). Perceived Ease of Use and Usefulness of Sustainability Labels on Apparel Products: Application of The Technology Acceptance Model. Fashion and Textile. 4(3), 1-20.
- Mafe. (2009). A Comparative study of mobile messaging service acceptance to participate in television programmers. Journal of Service Management, 21(1), 69-102.
- Mallat, N., M. Rossi, V. K., Tuunainen, &, Oorni. 2009. The Impact of Use Context on Mobile Service Acceptance: The Case of Mobile Ticketing. Information & Management, 46, 190-195.
- Mangin, J. P. L. Bourgault, N., Leon, J. A. M., & Guerrero, M. M. (2012). Testing Control, Innovation and Enjoy as External Variables to the Technology Acceptance Model in a North American French Banking Environment. International Business Research, 5(2), 13-26.

- Mayasari, F., Kurniawati, E.P., & Nugroho, P. I. (2011). Antecedents and Consequences of Nasabah's Attitude in Using Internet Banking with the Technology Acceptance Model (TAM) (Survey on BCA Users), *Jurnal Semantik*, 34-41.
- Mazhar, F., Fiaz, U., Ishrat, S., Razaq, M.S., & Khan, T. N. (2014). An Investigation of Factors Affecting Usage and Adoption of Internet & Mobile Banking in Pakistan. *International Journal of Accounting and Financial Reporting*, 4(2), 478-501.
- Novita, N. N. S. L. (2016). Peran Sikap dalam Memediasi Pengaruh Perceived Usefulness terhadap Niat Menggunakan Internet Banking di Kota Denpasar. *E-Jurnal Manajemen Unud*, 5(3), 1513-1541.
- Peslak, A., Ceccucci, W. & Sendall, P. (2010). An Empirical Study of Instant Messaging (IM) Behavior Using Theory of Reasoned Action.
- Phonthanukitithaworn, C., Sellitto, C., & Fong, M. W. L. (2016). An Investigation of Mobile Payment (M-Payment) Services in Thailand Asia-Pacific. *Journal of Business Administration*, 8(1), 37-54.
- Rahyuda, K. (2016). *Metode Penelitian Bisnis*. Denpasar, Udayana Press University.
- Rauniar, R. (2014). Technology Acceptance Model (TAM) and Social Media Usage: An Empirical Study on Facebook. *Journal of Enterprise Information Management*, (27)1, 6-30.
- Rocker, C. (2009). Perceived Usefulness and Perceived Ease of Use of Ambient Intelligence Applications in Office Environments. *Human Center Design*, 1052-1061.
- Safeena, R., Date, H., Hundewale, N., & Kammani, A. (2013). Combination of TAM and TPB in Internet Banking Adoption. *International Journal of Computer Theory and Engineering*, 5(1), 146-150.
- Shanmugam, A., Savarimuthu, M. T, & Wen, T. C. (2014). Factors Affecting Malaysian Behavioral Intention to Use Mobile Banking with Mediating Effects of Attitude. *Academic Research International*, 5(2), 236-253.
- Sugiyono, 2016. *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Bandung: Alfabet.
- Sugiyono, 2018. *Statistik Untuk Penelitian*. Bandung: Alfabeta.
- Suki, N. M., & Ramayah, T. (2010). User Acceptance of the E-Government Services in Malaysia: Structural Equation Modelling Approach, *Interdisciplinary Journal of Information, Knowledge, and Management*, 5, 395-413.
- Taylor, S., & Todd, P.A. (1995a). Decomposition and Crossover Effects in the Theory of Planned Behavior: A Study of Consumer Adoption Intentions. *International Journal of Research in Marketing*, 1(2), 137-55.
- Taylor, S., & Todd, P.A. (1995b). Understanding Information Technology Usage: A Test of Competing Models, *Information System Research*, 6(2), 144-76.
- Waspada, I. (2012). Percepatan Adopsi Sistem Transaksi Teknologi Informasi untuk Meningkatkan Aksesibilitas Layanan Jasa Perbankan. *Jurnal Keuangan dan Perbankan*. 16(1), 122-131.
- Wibowo, S.F., Rosmauli, D., & Suhud, U. 2015. Pengaruh Persepsi Manfaat, Persepsi Kemudahan, Fitur Layanan, dan Kepercayaan terhadap Minat Menggunakan E-money Card (studi pada pengguna jasa commuter line di Jakarta). *Jurnal Riset Manajemen Sains Indonesia*, 6(1), 440-456.
- Wirahutomo, G. A. 2017. Pengaruh Persepsi Kegunaan (Perceived Usefulness), Persepsi Kemudahan (Perceived Ease of Use) terhadap Niat Perilaku (Behavioural Intention) Dalam Mengakses Channel Youtube Endank Soekamti Dengan Sikap Penggunaan (Attitude Toward Using) Sebagai Mediasi. *Jurnal Ilmiah Fakultas Ekonomi dan Bisnis Universitas Brawijaya*, 5)1.
- Xie, Q., Song, W, Peng, X, and Shabbir, M. 2017. Predictors for e-Government Adoption: Integrating TAM, TPB, trust And perceived Risk. *The Electronic Library*, 35(1), 2-20.
- Yadav, R., Chauhan, V & Pathak, G. S. 2015. Intention to Adopt Internet Banking in An Emerging Economy: A Perspective of Indian Youth, *International Journal of Bank Marketing*, Vol. 33, No. 4, pp. 530-544.