# INFLUENCE OF POST-USAGE USEFULNESS, SELF-EFFICACY AND SATISFACTION TOWARDS CONTINUANCE INTENTION OF T-CASH

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#### ABSTRACT

In this era, digitalization becomes the trend on which everything goes digital and this includes paying through application. The users' intention to continue using the application is very important. Based on the extended model of information technology continuance, the factors that influence the application continuance intention are post-usage usefulness, self-efficacy and satisfaction. This research aimed to analyze the influence of Post-Usage Usefulness, Self-Efficacy and Satisfaction Towards the Application Continuance Intention of T-Cash. This research is a causal study and uses a non-probability purposive sampling technique. The total number of respondents is 150 respondents who have T-Cash application and had experiences in using T-Cash application for payment in the last three months. The data were processed and analyzed by using Structural Equation Modeling technique through LISREL software. This research proved that Post-Usage Usefulness has a significant positive effect on the Application Continuance Intention and Satisfaction, Self-Efficacy has a significant positive effect on the Application Continuance Intention and Satisfaction, and Satisfaction has a significant positive effect on the Application Continuance Intention. The suggestions for T-Cash are to add more features that are beneficial for making payments faster, designing an easy and interactive user interface, and providing users with easy to follow instructions.

#### INTRODUCTION

According to the Association of Indonesian Internet Network Providers or which is known as APJII (Asosiasi Penyelenggara Jasa Internet), there are 143 millions of people who are connected to the internet network in the year of 2017. This number is an increase from the previous years of year 2014 and 2016 on which only 88 millions of people and 132.7 millions of people who are connected to the Internet network. These people who accesses the internet tend to like things to be more digitalized. This includes the digitalization of payment system on which, people are no

longer using convectional money to pay for what they need. So people usually likes to use electronic money or better known as emoney to pay for what they need.

One of the most famous e-money in Indonesia that is used among the Indonesian people is T-Cash. T-Cash was released by PT Telekomunikasi Seluler (Telkomsel) on November 2007 and its effective operational date is on 3 July 2009. Basically, T-Cash uses smartphone as a payment gateway through the T-Cash application known as T-Wallet. T-Cash can be used by both Telkomsel and non-Telkomsel users. T-Cash offers many advantages to the users, on which users can

top-up their T-Cash balance at Grapari, ATM Bersama and Indomaret. Aside from that, T-Cash balance can also be withdrawn in Indomaret and it can be transfer to other T-Cash account or to ATM Bersama. In addition, T-Cash can be used to pay up for several bills including kartu halo, cable tv, internet, telephone, water bills, electricity bills and online shopping bills. T-Cash can also be use to pay for transport and travel which includes train tickets, plane tickets and hotel. Moreover, T-Cash can be use to pay for concert tickets, airtime and data topup. Not only that, T-Cash also have the tap to pay and scan QR code features and it also offers many promos to the users.

Due to all the advantages being offered by T-Cash to the users, T-Cash had succeeded in gaining 20 million users in 2018. Among the 20 million users, T-Cash is famous for the features of airtime top-up, paying or buying anything through smartphone paying merchants. and Unfortunately, Danu Wicaksana as the CEO of T-Cash stated that only around 25% up to 35% of T-Cash total users are categorized as active users. Active users are users who did active transactions so, if the users only open and did browsing on the application of T-Cash, those users are not categorized as active users. This issue is surely a problem for T-Cash because the amount of its active users are too low compared to its total users. Therefore, further research is needed to be conducted to find out the reasons behind the low percentage of T-Cash active users.

This research will discuss about all the variables that influence the application continuance intention of T-Cash. application continuance intention is very important for T-Cash because in this current situation, the users of T-Cash have a low application continuance intention on which they do not intend to keep on using the application for a long period of time. This was refer to the statement of T-Cash's CEO that has been mentioned previously. In application continuance addition, the intention is also very important for T-Cash because now days there are a lot of competitors. According to Teknologi.id (2018), it was reported that Go-Pay and E-Money are more popular than T-Cash in 2017. Go-Pay can be use for Go-Ride, Go-Car, Go-Food, Go-Send, Go-Box, Go-Tix, Go-Med, Go-Pulsa, Go-Bills, Go-Massage, Go-Clean, Go-Glam and Go-Auto payment. Meanwhile, E-Money can be use for TOL payment, parking payment, train payment, transjakarta payment, transjogja payment, batik solo trans payment, SPBU Pertamina payment, payment at stores, amusement park and restaurants.

The application continuance intention refers to the tendency of people to use service in the post-acceptance stage (Hu et al., 2009). To illustrate the application continuance intention itself, this research uses variables which are related like postusage usefulness, self-efficacy satisfaction. The basis theory for all of the connections among the variables is the theory of extended model of information technology continuance by Bhattacherjee et al. (2008). This theorywas first originated from the expectation disconfirmation theory (EDT) (Oliver 1980) and post-acceptance theory of IS continuance (Bhattacherjee 2001b). Basically, the theory of extended information technology of continuance will be used as the base of this research because this theory involves the cognitive influence that can be felt by the users of the application itself.

## <u>Post-Usage Usefulness on the Application</u> <u>Continuance Intention</u>

The post-usage usefulness has a application positive effect on the continuance intention. In the theory of the extended model of IT continuance itself, the variable of post-usage usefulness did have a positive influence on the variable of application continuance intention. According to Rezaie et al. (2016), post-usage usefulness (PUU) illustrates the level and the perception that the usage of the application could improve user's efficiency the and

productivity. Meanwhile according to Hu et al. (2009), application continuance intention shows the tendency of people to use service in the post-acceptance stage. This means that after the users use the application and felt that the application can make them more productive like for example by using payment application, users can make their payment faster so it will make them to have the intention to keep on using that application. In addition, Rezaie et al. (2016) also stated that, in the usage of information system, the interchange between the cost and the benefits have a significant influence on the continuance intention of the consumers. This means that the usage values that are felt by the users indicate whether the users will again use the application or not. If the users felt that, by using a payment application can be useful for them so the users will have the intention to use the same application again and again in a long period of time. Then, if the users felt that there are no benefits or advantages gained from the usage of the application so they will not have the intention to use the same application again.

#### Post-Usage Usefulness on Satisfaction

The post-usage usefulness has a positive effect on the satisfaction. The postusage usefulness is considered to be the long-term belief that was integrated from the previous usefulness (Rezaei et al., 2016). The post-usage usefulness will increase the satisfaction of the users only if the real usage fulfilled their own individual expectation. This is the reason why satisfaction is tightly related to the users' past experience in using the application. According to Oliver (1980), there are several factors that influence the users' satisfaction and one of it is the usefulness value of a system or application that the users used. Similarly, Bellman et al. (2011) also said that when the mobile application includes the interactivity of design factors, users' experiences will be improved and it will lead to greater satisfaction. This means that after the users had use the application and they felt the high usage values of the application so they are included as the users who are satisfied with the performance of the application itself. This statement can be proven through the findings of Rezaei et al. (2016) about the "Determinants of App Stores Continuance Behavior: A PLS Path Modelling Approach". In the findings, it was proven that the postusage usefulness did positively influence the consumers' satisfaction.

#### <u>Self-Efficacy on the Application Continuance</u> Intention

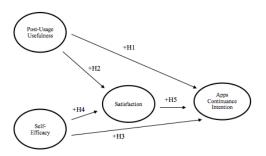
The self-efficacy has a positive effect on the application continuance intention. In the theory of the extended model of IT continuance itself, the variable of selfefficacy did have a positive influence on the application variable of continuance intention. This theory was also proven in the finding of Rezaei et al. (2016) about the "Determinants of App Stores Continuance Behavior: A PLS Path Modelling Approach". In the finding, self-efficacy did influence the application continuance intention positively. Moreover, in the finding of Kang and Lee (2014) about the self-customization of the online service environment, it was also found out that self-efficacy has a significant impact on the application continuance intention. Besides that, the finding of Shank and Cotten (2014) about the relationship of technology use and self-efficacy had also proven that teenagers who have high selfefficacy will be more engage with their computers compared to those who have low self-efficacy. This implies that a high level of self-efficacy will increase the individual's self-confident and level of motivation. When this happen, there will be likelihood of the increase in the continuance intention of using certain application. For example, if the users believe that they are capable in using payment application so, it will intention automatically raise their to continue using application that for processing more payment.

#### Self-Efficacy on Satisfaction

The self-efficacy has a positive effect on the satisfaction. According to Igbaria and Livari (1995, 588), self-efficacy is individual's belief to be able to do certain action and it is highly correlated to its performance in computer and technological acceptance. Users who had high level of selfefficacy will result in having high level of self-confidence towards their capability of getting various objectives through internet. Through the self-confidence formed by the users, satisfaction in using the application that they had used previously will arises. This was proven in the findings of Rezaie et al. (2016) on which it was found that the consumers' self-efficacy had positively influence their satisfaction in using the application. In addition to that, Salanova et al. (2000)also stated that previous experience is very important characterizing an individual's self-efficacy related to technology. This can happen because the previous experience itself can also create satisfaction for the individual. Basically, individuals who have high selfefficacy will tend to take risks, explore and also solve problems by using applications (Akhter, 2014). Moreover, these individuals will rather choose to take hard tasks to be able to become experts than to avoid the tasks. This also implies to the usage of the applications itself.

## <u>Satisfaction on the Application Continuance</u> <u>Intention</u>

The satisfaction has a positive effect on the application continuance intention. In the theory of the extended model of IT continuance itself, the variable of satisfaction did have a positive influence on the application continuance intention. The satisfaction itself can be defined as someone's affective condition that is the result from their evaluations on all aspects relationship that construct consumer (Flavian According et al., 2006). Bhattacherjee (2001b), satisfaction shown to be the key in attracting and consumers. Meanwhile keeping the according to Teo and Lim (2001) satisfaction is the efficient and emotional reaction towards the particular experience of retailer on which in this case is the application. So through satisfaction, consumers can identify their intention to keep on using the application again and again. In this case, it is the intention of using the digital payment application. Higher application continuance intention shows that the program, system and product are well designed and they also work well (Lin et al., 2011). Similarly, Song et al (2014) also said that the satisfaction on which the consumers felt towards the applications resulted in the pleasurable fulfillment of the system itself. This implies that if the users are satisfied with the application because it runs well and it is so useful so, it will increase their intention to continue using the application for payment. Kang and Lee (2010) also said that the satisfaction customers' has a tight relationship with their continuance intention in the virtual arena. In the findings of Rezaie et al. (2016) and also Shang and Wu (2017), satisfaction had also been proven to positively influence the consumers' continuance intention.



Picture 1. Research Framework

#### RESEARCH METHODOLOGY

#### <u>Sample</u>

This research uses a non-probability purposive sampling technique. The minimum sample that will be use is 140 respondents who have T-Cash application and had experiences in using T-Cash application for payment in the last three months.

#### Tool and Data Collection Method

The tool that will be used to collect data is questionnaire. A questionnaire is one of an instrument for research that consists of series of questions for gathering information from the respondents (McLeod, S. A. 2014). The questionnaires for this research will be distributed directly to the respondents. There will be three parts in the questionnaire. The first part is about the requirements to be a respondent and there will be two questions for this part. Meanwhile, the second part is about the characteristics of the respondents and there will be six questions for this part. The last part of the questionnaire is the 13 questions to measure the variables being researched. The main idea for the questions is about the influence of post-usage usefulness, selfefficacy and satisfaction towards application continuance intention of T-Cash. Furthermore, the data collection method for this research is survey. The survey will be done using the questionnaires distributed to respondents.

## **Operational Definition of Variables**

Post-Usage Usefulness

Post-usage usefulness is when individual feel the high usage values of an application after he or she experienced using that application.

According to Bhattacherjee (2001b), post-usage usefulness can be measured by using the following indicators:

1. Using application for payment will make payment faster

- 2. Using application for payment will make payment easier
- 3. Will find the application to be useful for payment

#### Self-Efficacy

Self-efficacy is an individual's belief to be able to do certain action especially those related to the usage of application to get the desired results.

According to Bhattacherjee (2001b), self-efficacy can be measured by using the following indicators:

- 1. Can perform payment using application even if there is no one around to help
- 2. Can perform payment using application if there is adequate time to complete payment
- 3. Can perform payment using application by only using online help for reference
- 4. Confident in the ability to perform payment using digital payment application

## **Satisfaction**

Satisfaction is the feeling that arises from the hope fulfillment of something; in this case it is the usage of the application.

According to Bhattacherjee (2001a), satisfaction can be measured by using the following indicators:

- 1. Satisfied with the decision of using digital payment application
- 2. The choice to use digital payment application was a wise one
- 3. Experience of using digital payment application was satisfactory
- 4. Did the right thing by deciding to use digital payment application

#### Application Continuance Intention

Continuance intention is someone's intention in using the application, whether she or he will continue using the application

or not.

According to Bhattacherjee (2001b), application continuance intention can be measured by using the following indicators:

- 1. Intention to continue using the application for payment
- 2. Intention to continue using the application for processing more payment
- 3. Intention to continue using the application for more payment responsibilities

#### Data Analysis Technique

In this research, the data analysis technique that will be use is Structural Equation Modeling (SEM). SEM technique is used because it allows the researchers to test or modify any theories and models. According to Yamin and Kurniawan (2009: 3-4), SEM allows the researchers to estimate the relationship between variables that has characteristics as multiple relationships. In

addition, SEM also allows researchers to view the relationship pattern of the latent variable and the manifest variable. In SEM, the software of Linear Structural Relations (LISREL) will be used for this research.

#### **RESULTS AND DISCUSSION**

### **Characteristics of Respondents**

From Table 1, it can be seen that most of the respondents are female. Based on the age, most of the respondents aged around 17 - <25 years old. Based on the last education, most of the respondents' last education is high school or equivalent. Based on the occupation, most of the respondents are students or university students. Based on the monthly income, most of the respondents have a monthly income of less than Rp 2,000,000. Then based on the use of T-Cash, most of the respondents use T-Cash for payment at the merchants followed by airtime purchase and mobile data purchase.

**Table 1. Characteristics of Respondents** 

Profile	Characteristics	%
Gender	Male	26.7
	Female	73.3
Age	≥ 45 years old	2.7
	17 - <25 years old	75.3
	25 - <35 years old	12.7
	35 - <45 years old	9.3
Last Education	Diploma	3.3
	Bachelor Degree	24.0
	Master Degree or Doctoral Degree	12.0
	High School or Equivalent	60.7
Occupation	Private employee	9.3
	Student or University Student	70.7
	Civil Servant	2.0
	Entrepreneur	18.0
Monthly	< Rp 2,000,000	69.3
Income	≥ Rp 10,000,000	7.3
	Rp 2,000,000 - <rp< td=""><td>6.7</td></rp<>	6.7
	5,000,000	
	Rp 5,000,000 - <rp 10,000,000<="" td=""><td>16.7</td></rp>	16.7
The Use of T-	Payment at Merchants	22.2
Cash	Airtime Purchase	18.8

Mobile Data Purchase	17.2
Online Shopping	11.1
Purchase Electricity Tokens	7.7
Pay Internet Bills	6.6
Pay Telephone Bills	3.9
Pay Kartu Halo	2.9
Purchase Games Voucher	2.0
Purchase Plane Tickets	2.0
Pay Water Bills	1.4
Transfer Money	1.4
Purchase Train Tickets	1.1
Purchase Hotel Room	0.9
Pay Electricity Bills	0.7

#### Data Description for the Research Variables

Descriptive statistics aims to analyze the collected data by first describing or picturing it. Through descriptive statistics, the average value of every indicators used in each variables can be known. The average value itself will be categorized into five-interval class. To determine the interval class, the following formula can be used:

$$Interval \ class = \frac{\text{Maximum value-Minimum value}}{\frac{5-1}{5} = 0.8} =$$

Based on the calculation above, the interval class is 0.8. The category will begins from 1.00 and it will be added with 0.8 to create each category.

Table 2. Average Interval Score of Research Variables

Average Interval	Category
Score	
1.00 - < 1.80	Strongly Disagree
1.80 - < 2.60	Disagree
2.60 - < 3.40	Neutral
3.40 - < 4.20	Agree
4.20 - ≤ 5.00	Strongly Agree

Source: Durianto et al (2001:43)

Table 2 shows the category that will be used to measure the answers of the respondents for each variable. Detailed evaluation on the answers of the respondents is shown below:

#### Post-Usage Usefulness Variable

The mean value of post-usage usefulness's indicators ranged from 4.327 until 4.420. Further details can be found on Table 3 as shown below:

Table 3. Descriptive Statistics of Post-Usage Usefulness Variable

No	Statements	Mean	Category
1	Using T-Cash application for payment will make my payment faster.	4.327	Strongly Agree
2	Using T-Cash application for payment will make my payment easier.	4.420	Strongly Agree
3	I will find T-Cash application to be useful for payment.	4.413	Strongly Agree
Total		4.387	Strongly Agree

According to Table 3, the mean value of post-usage usefulness is 4.387, which means that the answers of the respondents towards post-usage usefulness on T-Cash application is strongly agree. This proves that the users found T-Cash application to be useful for payment because it makes their payment faster and easier.

#### Self-Efficacy Variable

The mean value of self-efficacy's

indicators ranged from 4.240 until 4.393. Further details can be found on Table 4. According to Table 4, the mean value of self-efficacy is 4.34, which means that the answers of the respondents towards self-efficacy on T-Cash application is strongly agree. This proves that the users of T-Cash application are capable and confident in using T-Cash application with minimal obstacles for making their payments.

**Table 4. Descriptive Statistics of Self-Efficacy Variable** 

No	Statements	Mean	Category
1	I can perform payment using T-Cash application even if there is no one around to help me.	4.240	Strongly Agree
2	I can perform payment using T-Cash application if there is adequate time to complete my payment.	4.393	Strongly Agree
3	I can perform payment using T-Cash application by only using online help for reference.	4.340	Strongly Agree
4	I'm confident in my ability to perform payment using T-Cash application.	4.387	Strongly Agree
	Total	4.34	Strongly Agree

#### Satisfaction Variable

The mean value of satisfaction's indicators ranged from 4.167 until 4.240.

Further details can be found on Table 5 as shown below:

Table 5. Descriptive Statistics of Satisfaction Variable

	Tuble of Descriptive Statistics of Satisfaction Variable				
No	Statements		Category		
1	I'm satisfied with my decision to use T-Cash application.	4.167	Agree		
2	For me, the choice to use T-Cash application was a wise one.	4.213	Strongly Agree		
3	My experience of using T-Cash application was satisfactory.	4.200	Strongly Agree		
4	I think I did the right thing by deciding to use T-Cash application.	4.240	Strongly Agree		
	Total	4.205	Strongly Agree		

According to Table 5, the mean value of satisfaction is 4.205, which means that the answers of the respondents towards satisfaction on T-Cash application is strongly agree. This proves that the users of T-Cash application are satisfied with their decision and choice to use T-Cash application.

Furthermore, it also proves that the users are also satisfied with their experience in using T-Cash application for payment.

#### *Application Continuance Intention Variable*

The mean value of application continuance intention's indicators ranged

from 4.220 until 4.387. Further details can be found on Table 4.11 as shown below:

Table 6. Descriptive Statistics of Application Continuance Intention Variable

No	Statements	Mean	Category
1	I intend to continue using T-Cash application for payment.	4.387	Strongly Agree
2	I intend to continue using T-Cash application for processing more payment.	4.220	Strongly Agree
3	I intend to continue using T-Cash application for more of my payment responsibilities.	4.287	Strongly Agree
Total		4.298	Strongly Agree

According to Table 6, the mean value of application continuance intention is 4.298, which means that the answers of the respondents towards application continuance intention on T-Cash application is strongly agree. This proves that the users of T-Cash application have the intention to continue using T-Cash application for processing more payments and payment responsibilities.

#### **Data Normality Testing**

Normality testing is divided into two, which are univariate normality testing and multivariate normality testing. Univariate normality testing is testing the normality of each indicators meanwhile multivariate normality testing is testing all the variables,

which shape the research model. The values of both univariate and multivariate normality testing are considered normal if the Skewness and Kurtosis P-value is >0.05.

According to Table 7, all the Skewness and Kurtosis P-value of univariate normality testing on the 14 indicators are <0.05. This means that the data is not normally distributed. However, the overall normality testing relies heavily on the multivariate normality testing.

According to Table 8, the Skewness and Kurtosis P-value of multivariate normality testing is 0.152 on which it is >0.05. This means that the data is normally distributed. In conclusion, the data is not bias and it can represent the whole population.

Table 7. Result of Univariate Normality Testing

Research Variable	<u> </u>	Skewness and	Conclusion
		Kurtosis P-Value	
	PUU1	0.002	Not Normal
POST-USAGE USEFULNESS	PUU2	0.001	Not Normal
	PUU3	0.004	Not Normal
SELF-EFFICACY	SE1	0.002	Not Normal
	SE2	0.003	Not Normal
	SE3	0.001	Not Normal
	SE4	0.001	Not Normal
	SAT1	0.000	Not Normal
	SAT2	0.001	Not Normal
SATISFACTION	SAT3	0.000	Not Normal
	SAT4	0.002	Not Normal
APPLICATION	ACI1	0.001	Not Normal
CONTINUANCE INTENTION	ACI2	0.002	Not Normal
	ACI3	0.000	Not Normal

Table 8. Result of Multivariate Normality Testing

					,	0	
Skewne	ss		Kurtosis			Skewness	and
						Kurtosis	
Value	Z-score	P-value	Value	Z-	P-	Chi-Square	P-value
				score	value		
22.860	0.361	0.718	214.963	-1.906	0.057	3.762	0.152

#### Validity Testing

An indicator is considered valid if the t-value's loading factor is greater than 1.96 (critical value) (Yamin and Kurniawan, 2009:36). For the first indicator of every variable, there will be no t-value because they are use as the basis of the calculation.

Based on Table 9, the lowest t-value is

4.52, which is presented by SAT4 meanwhile the highest t-value is 13.67, which is presented by SAT3. From Table 9, it can also be seen that all the t-value of the indicators are >1.96, which means all the indicators are valid. Therefore, the research can continue to the next testing criteria.

**Table 9. Result of Validity Testing** 

Variables		T-Value of each Indicators	Limit	Conclusion
	PUU1	0.00	Index*	Valid
	PUU2	10.54	1.96	Valid
PUU	PUU3	9.45	1.96	Valid
	SE1	0.00	Index*	Valid
	SE2	8.46	1.96	Valid
SE	SE3	8.55	1.96	Valid
	SE4	9.59	1.96	Valid
	SAT1	0.00	Index*	Valid
	SAT2	12.05	1.96	Valid
	SAT3	13.67	1.96	Valid
SAT	SAT4	4.52	1.96	Valid
	ACI1	0.00	Index*	Valid
ACI	ACI2	12.51	1.96	Valid
.1 .	ACI3	11.76	1.96	Valid

<sup>\*</sup>Index of calculation, therefore t-value is not identified

#### Reliability Testing

Reliability testing can be measured by using construct reliability. An indicator is said to be reliable when the value of the construct reliability is more than 0.7 (Yamin and Kurniawan, 2009: 36-37). From Table 10,

it can be seen that all the values of the variables are more than 0.7. Therefore, post-usage usefulness, self-efficacy, satisfaction and application continuance intention are reliable.

Table 10. Reliability Testing

	· · · · · · · · · · · · · · · · · · ·	, 0
Variables	Value	Reliability
PUU	0.811	Reliable
SE	0.845	Reliable
SAT	0.796	Reliable
ACI	0.836	Reliable

## Overall Model Fit Testing

Overall Model Fit Testing aims to test whether the hypothesized model is a good model to present the research results or not (Yamin and Kurniawan, 2009:31). According to Table 11, NFI, IFI, CFI, RFI, RMSEA AND

TLI/NNFI are categorized as good fit. As the Good Fit has been obtained from all the measurements, therefore the research model proposed by the researcher is accepted.

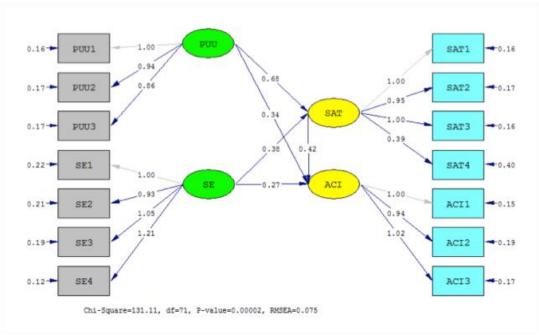
	Table 11. Result of Goodness of Fit				
Goodness of Fit	Result	Cut-off Value	Description		
NFI	0.96	NFI ≥0.9	Good Fit		
IFI	0.98	IFI ≥0.9	Good Fit		
CFI	0.98	CFI ≥0.9	Good Fit		
RFI	0.95	RFI ≥0.9	Good Fit		
RMSEA	0.075	RMSEA < 0.08	Good Fit		
TLI / NNFI	0.98	TLI ≥0.9	Good Fit		

Table 11. Result of Goodness of Fit

#### Structural Model Fit Testing

The structural model fit testing aims to test the relationship between the

hypothesized variables. According to the output of estimates, the structural equation model of this research is shown as below:



**Picture 2. Path Diagram (Estimates)** 

Based on the path diagram of estimates shown above, the structural equation for this research is:

While the indirect effect can be seen as follows:

Indirect Effects of KSI on ETA

This result shows that Post-Usage Usefulness has a positive influence on Satisfaction as large as 0.68. Then, Self-Efficacy also has a positive influence on Satisfaction as larger as 0.38. Next, Satisfaction has a positive influence on the Application Continuance Intention as larger as 0.42 meanwhile, Post-Usage Usefulness has a positive influence on the Application

Continuance Intention as large as 0.34. Furthermore, Self-Efficacy has a positive influence on Application Continuance Intention as large as 0.27.

From the result of the indirect effect, it can be known that the indirect effect of Post-Usage Usefulness on the Application Continuance Intention is 2.10 (t-value). Therefore the t-value is accepted as it fulfills

the cut off value of more than 1.96. The indirect effect of Post-Usage Usefulness on the Application Continuance Intention is also higher than the direct effect. Meanwhile, the indirect effect of Self-Efficacy on the Application Continuance Intention has t-value of 1.73. The t-value is not accepted because it is less than 1.96 (cut-off value).

## **Hypothesis Testing**

**Table 12. Result of Hypotheses Testing** 

Hypothesis	Loading	T-Value	T-Statistic	Description
	Factor			
H1 (PUU→	0.34	1.97	1.96	Hypothesis Accepted
ACI)				
H2 (PUU→	0.68	5.93	1.96	Hypothesis Accepted
SAT)				
H3 (SE→ACI)	0.27	2.08	1.96	Hypothesis Accepted
H4 (SE→	0.38	2.84	1.96	Hypothesis Accepted
SAT)				
H5 (SAT→	0.42	2.19	1.96	Hypothesis Accepted
ACI)				_

In this research, there are 5 hypotheses being tested. The criteria for the hypotheses to be considered as significant is when the t-value is >1.96 (t-statistic). The result of hypotheses testing for this research is shown in Table 12 and the description of Table 12 is shown as follow:

- 1. Hypothesis 1: the statement of Post-Usage Usefulness positively Application influences the Continuance Intention with value 0.34 is significant and accepted because the t-value of hypothesis 1 is 1.97 on which, it is >1.96 (cutoff value). This means that if Post-Usage Usefulness increases the Application Continuance Intention will also increases and if the Post-Usage Usefulness decreases so the Application Continuance Intention will also decreases.
- 2. Hypothesis 2: the statement of Post-Usage Usefulness positively influences Satisfaction with value 0.68 is significant and accepted

- because the t-value of hypothesis 2 is 5.93 on which, it is >1.96 (cutoff value). This means that if Post-Usage Usefulness increases so the Satisfaction will also increases and if the Post-Usage Usefulness decreases so the Satisfaction will also decreases.
- 3. Hypothesis 3: the statement of Self-Efficacy positively influences the Application Continuance Intention with value 0.27 is significant and accepted because the t-value of hypothesis 3 is 2.08 on which, it is >1.96 (cutoff value). This means that if Self-Efficacy increases so the Application Continuance Intention will also increases and if the Self-Efficacy decreases so the Application Continuance Intention will also decreases.
- 4. Hypothesis 4: the statement of Self-Efficacy positively influences Satisfaction with value 0.38 is significant and accepted because the t-value of hypothesis 4 is 2.84 on

- which, it is >1.96 (cutoff value). This means that if Self-Efficacy increases so the Satisfaction will also increases and if the Self-Efficacy decreases so the Satisfaction will also decreases.
- 5. Hypothesis 5: the statement of Satisfaction positively influences the Application Continuance Intention with value 0.42 is significant and accepted because the t-value of hypothesis 5 is 2.19 on which, it is >1.96 (cutoff value). This means that if Satisfaction increases so Application Continuance Intention will also increases and if Satisfaction decreases the so Application Continuance Intention will also decreases.

## <u>The effect of Post-Usage Usefulness on the Application Continuance Intention</u>

If the users of an application felt that the application has a high usage value they will tend to have the intention to keep on using that particular application. This is proven through the hypothesis testing of the influence of post-usage usefulness towards the application continuance intention on which the influence is significant and positive. The significant and positive influence of post-usage usefulness on the application continuance intention shows that T-Cash users in Surabaya felt that T-Cash application is so useful for making payments and they will keep on using T-Cash application in a long run.

According to Rezaie *et al.* (2016), postusage usefulness (PUU) illustrates the level and the perception that the usage of the application could improve the user's efficiency and productivity.In addition, Rezaie *et al.* (2016) also stated that, in the usage of information system, the interchange between the cost and the benefits have a significant influence on the continuance intention of the consumers. So if the users of T-Cash feel that by using T-Cash application, they can gained benefits such as faster and easier payment processes, it will automatically triggers them to have repeat usage on the T-Cash application. Therefore, in this research, hypothesis three, which stated that post-usage usefulness has a the positive influence on application continuance intention, is accepted. This indicates that if the value of post-usage usefulness increases, it will positively affect value of application continuance intention. This finding is in line with the theory of the extended model of IT continuance itself on which the variable of post-usage usefulness did have a positive influence on the variable of application continuance intention.

The post-usage usefulness can also influence the application continuance intention through satisfaction. This can be proven from the t-value in the indirect effect table. When the users of the application feel the high usage value of that application so, satisfaction on that particular application will arise. The users felt satisfied because the application is useful for payment and it makes their payment faster and easier. The satisfaction that the users felt towards the application will create the intention of the users to keep on using the application in the long run. This is supported in the finding of Rezaie et al. (2016) on which post-usage usefulness has a positive influence on satisfaction and satisfaction plays important role in influencing the application continuance intention.

## <u>The effect of Post-Usage Usefulness on</u> Satisfaction

If the users of an application felt that the application has a high usage value so the users will be satisfied in using the application. The reason behind this is because the application itself helps them in doing their activities. The post-usage usefulness will increase the satisfaction of the users only if the real usage fulfilled their own individual expectation. Therefore, the higher the usage value that an application offered, the higher the satisfaction that the

users have towards that application. This is proven through the hypothesis testing of the influence of post-usage usefulness towards the satisfaction on which the influence is significant and positive.

In Surabaya, T-Cash users who felt that T-Cash application is so useful for making their payments will be satisfied when using T-Cash application. If the users of T-Cash feel that by using T-Cash application, their payments can be faster and easier therefore it will make them feel more satisfied in using the application itself. Therefore, in this research, hypothesis two, which stated that post-usage usefulness has a positive influence on the application continuance intention, is accepted. This indicates that if the value of post-usage usefulness increases, it will positively affect the value of satisfaction.

This finding is in line with the statement of Oliver (1980) on which he stated that there are several factors that influence the users' satisfaction and one of it is the usefulness value of a system or application that the users used. In addition, this finding also supports the previous finding done by Rezaei et al.(2016) with titled "Determinants of App Stores Continuance Behavior: A PLS Path Modelling Approach". In the finding, it was proven that post-usage usefulness did positively influence the consumers' satisfaction. This means that users are satisfied when the application makes it easier for the users to do their payment activities. In addition, Bellman et (2011)also said that when the mobile application includes the interactivity of design factors, users' experiences will be improved and it will lead to greater satisfaction.

## The effect of Self-Efficacy on the Application Continuance Intention

The variable of self-efficacy influences the variable of application continuance intention on which users who are confidence in using application will intend to use the application again and again. This is proven through the hypothesis testing of the influence of self-efficacy towards the application continuance intention on which the influence is significant and positive. The significant and positive influence of self-efficacy on the application continuance intention shows that T-Cash users in Surabaya are confident and capable in using T-Cash application to process their payment activities. Therefore, the users of T-Cash application will continue to use T-Cash application in the long run.

In this research, hypothesis five, which stated that self-efficacy has a positive influence on the application continuance intention, is accepted. This indicates that if the value of self-efficacy increases, it will positively affect the value of the application continuance intention. This finding is in line with the theory of the extended model of IT continuance itself on which the variable of self-efficacy did have a positive influence on the variable of application continuance intention. Moreover, this finding supports the previous finding of Rezaei et al.(2016) about the "Determinants of App Stores Continuance Behavior: A PLS Path Modelling Approach". In the finding, selfefficacy did influence the application continuance intention positively.

In addition, this finding also supports the finding of Kang and Lee (2014) about the self-customization of the online service environment on which, it was found that self-efficacy has a significant impact on the application continuance intention. Besides that, this finding also supports the finding of and Cotten (2014) about the relationship of technology use and selfefficacy. In the finding, it was proven that teenagers who have high self-efficacy will be more engage with their computers compared to those who have low self-efficacy. This implies that a high level of self-efficacy will increase the individual's self-confident and level of motivation. When this happen, there will be a likelihood of the increase in the application continuance intention.

#### The effect of Self-Efficacy on Satisfaction

The variable of self-efficacy influences the variable of satisfaction on which the higher the self-success rate of the users in using a certain application, the higher the satisfaction that the users have towards the application. If the users feel confident and think that they are able to use the application with minimal obstacles, it will make them feel satisfied in using the application itself. This is proven through the hypothesis testing of the influence of self-efficacy towards satisfaction on which the influence is significant and positive.

In Surabaya, T-Cash users felt that they are capable in using T-Cash application to process their payment activities. The T-Cash users think that they can complete their payment through T-Cash application even if there is no one around to help and only use online reference for help. The T-Cash users also believe that they can complete payment activities through T-Cash application if there is an adequate time to complete the transactions. All of these lead the users to have a greater satisfaction on the T-Cash application. Therefore, in this research, hypothesis four, which stated that selfefficacy has a positive influence satisfaction, is accepted. This indicates that if the value of self-efficacy increases, it will positively affect the value of satisfaction.

This finding supports the previous research done by Rezaie et al. (2016) on which it was found that the consumers' selfefficacy had positively influence their satisfaction in using the application. Hence, users who had high level of self-efficacy will result in having high level of self-confidence towards their capability of getting various objectives through the application. Basically, individuals who have high self-efficacy will tend to take risks, explore and also solve problems by using applications (Akhter, 2014). Moreover, these individuals will rather choose to take hard tasks to be able to become experts than to avoid the tasks. This also implies to the usage of the application itself. Therefore, the higher the level of selfefficacy, the higher the satisfaction will be.

### <u>The effect of Satisfaction on the Application</u> Continuance Intention

Satisfaction is one of the most important the application variables that affect Users who are continuance intention. satisfied with an application will tend to keep on using that application in a long run. The reason behind this is the fulfillment of what the users expects, can be met through the usage of the application itself. If the users felt that they are satisfied when using the application because it is easy to be used and very helpful in doing their activities so, the users will have the intention to keep on using that application again and again. This is proven through the hypothesis testing of the influence of satisfaction towards the application continuance intention on which the influence is significant and positive.

In Surabaya, T-Cash users who are satisfied with the usage of application will intend to keep on using T-Cash application for a long period of time. Satisfaction of T-Cash users can arises from the capability of the users in using the application on which they are able to use the application with minimal obstacles. In addition, the satisfaction of T-Cash users can also arises from the usefulness of T-Cash application on which it helps the users to fulfill their payments. Therefore, in this research, hypothesis one, which stated that satisfaction has a positive influence on the application continuance intention accepted. This finding is in line with the theory of the extended model of IT continuance itself on which the variable of satisfaction did have a positive influence on the application continuance intention.

Furthermore, this finding also supports the previous findings of Rezaie *et al.* (2016) and also Shang and Wu (2017) on which they found that satisfaction has a positive influence on the users' continuance intention. In addition, this finding is also in line with the finding of Kang and Lee (2010) on which customers' satisfaction has a tight

relationship with their continuance intention in the virtual arena. Higher application continuance intention shows that the program, system and product are well designed and they also work well (Lin *et al.*, 2011).

#### **CONCLUSION**

This research attempts to test the influence of Post-Usage Usefulness, Self-Efficacy and Satisfaction towards the Application Continuance Intention of T-Cash. According to the results and discussion done in the previous section, the conclusions that can be drawn are as follows:

- 1. Post-Usage Usefulness has a positive influence on the Application Continunce Intention. The higher the usage value of an application in helping the users to do their activities, the higher the intention to keep on using that application in the long run. When the users of T-Cash feel that T-Cash had allow them to make many kinds of payments and had made their payment faster and easier so, they will keep on using T-Cash application in a long run. Therefore, hypothesis 1 is supported. addition, Post-Usage the Usefulness can also influence the Application Continuance Intention through Satisfaction.
- 2. Post-Usage Usefulness has a positive influence on Satisfaction. The users of T-Cash application can be satisfied if they found the usage value of T-Cash application. So the higher the usage value, the higher the satisfaction of the users. If the users feel that T-Cash application is very useful for payments as it makes payments faster and easier so, the users of Tapplication will be very application. satisfied with the Therefore, hypothesis 2 is supported.
- 3. Self-Efficacy has a positive influence on the Application Continunce Intention. The users of T-Cash

- application are confident and capable in achieving payment objectives through the application. This then leads to the intention of using T-Cash application in the long run. Therefore, hypothesis 3 is supported.
- 4. Self-Efficacy has a positive influence on Satisfaction. The higher the self-efficacy, the higher the confidence of the users to meet certain objectives through internet. This implies to the objective of payment activities on which if this objective is met through the usage of T-Cash application, the users will be very satisfied in using T-Cash application. Therefore, hypothesis 4 is supported.
- 5. Satisfaction has a positive influence on the Application Continunce Intention. The higher the satisfaction the users in using T-Cash application, the higher their intention to keep on using T-Cash application. This is because the users feel that they are capable in using T-Cash application and found it to be very useful for processing their payments therefore, T-Cash application meets even exceeds the users' expectation which leads to a high level of satisfaction. This satisfaction then makes the users to have the intention to keep on using T-Cash application. Therefore, hypothesis 5 is supported.

#### **REFERENCES**

- Akhter, S. H. (2014). Privacy concern and online transactions: The impact of Internet self- efficacy and Internet involvement. Journal of Consumer Marketing 31 (2):118–25.
- Al-Maghrabi, T., and C. Dennis. (2011). What drives consumers' continuance intention to e- shopping? Conceptual framework and managerial implications in the case of Saudi Arabia. International Journal of Retail & Distribution Management 39

(12):899-926.

- Anderson, J. C., and D. W. Gerbing. (1982).

  Some Methods for Respecifying Measurement Models to Obtain Unidimensional Construct Measurement. Journal of Marketing Research 19:453–60.
- Bagozzi, T. P., Y. Yi, and L. W. Phillips. (1991). Assessing construct validity in organizational research. Administrative Science Quarterly 36:421-58.
- Bellman, S., R. F. Potter, S. Treleaven-Hassard, J. A. Robinson and D. Varra. (2011). The effectiveness of branded mobile phone apps. Journal of Interactive Marketing 25 (4):191-200.
- Bhattacherjee, A. (2001). An empirical analysis of the antecedents of electronic commerce service continuance. Decision Support Systems, 32(2), 201-214.
- Bhattacherjee, A. (2001). Understanding information systems continuance: An expectation- confirmation model. MIS Quarterly 25 (3):351-70.
- Bhattacherjee, A., Perols, J., and Sanford, C. (2008). Information technology continuance: A theoretic extension and empirical test. Journal of Computer Information Systems, 49(1), 17-26.
- Crabbe, M., C. Standing, S. Standing, and H. Karjaluoto. (2009). An adoption model for mobile banking in Ghana. International Journal of Mobile Communications 7 (5):515–43.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly 13:319-40.
- Durianto, D. and Sugiarto. (2001). Strategi Menaklukkan Pasar Melalui Riset

- Ekuitas dan Perilaku Merek. Jakarta: Gramedia.
- Flavian, C., M. Guinaliu, and R. Gurrea. (2006). The role played by perceived usability, satisfaction and consumer trust on website loyalty. Information & Management 43 (1):1-14.
- Grewal, D., A. L. Roggeveen, L.D. Compeau, and M. Levy. (2012). Retail value-based pricing strategies: New times, new technology, new consumers. Journal of Retailing 88 (1): 1-6.
- Hsu, C.-L., and J. C.-C. Lin. (2015). What drives purchase intention for paid mobile apps? An expectation confirmation model with perceived value. Electronic Commerce Research and Applications 14:46-57.
- Hu, P. J. H., S. A. Brown, J. Y. Thong, F. K. Chan, and K. Y. Tam. (2009). Determinants of service quality and continuance intention of online services: The case of eTax. Journal of the American Society for Information Science and Technology 60 (2):292-306.
- Hung, S.-Y., C.-M. Chang, and T.-J. Yu. (2006). Determinants of user acceptance of the e- government services: The case of online tax filling and payment system. Government Information Quarterly 23 (1):97-122.
- Igbaria, M., and J. Iivari. (1995). The effects of self-efficacy on computer usage. Omega 23 (6):587-605.
- Kang, Y. J., and Lee, W. J. (2014). Self-customization of online service environments by users and its effect on their continuance intention. Service Business 9(2): 321–342.
- Kang, Y. S., and H. Lee. (2010). Understanding the role of an IT artifact

- in online service continuance: An extended perspective of user satisfaction. Computers in Human Behavior 26 (3):353–64.
- Kuo, Y.-C., A. E. Walker, K. E. Schroder, and B. R. Belland. (2014). Interaction, Internet self- efficacy, and self-regulated learning as predictors of student satisfaction in online education courses. The Internet and Higher Education 20:35–50.
- Limayem, M., M. Khalifa, and A. Frini. (2000). What makes consumers buy from Internet? A longitudinal study of online shopping. IEEE Transactions on Systems, Man, and Cybernetics Part A 30 (4):421-32.
- Limayem, M., S. G. Hirt, and C. M. Cheung. (2007). How habit limits the predictive power of intention: The case of information systems continuance. MIS Quarterly 31 (4):705-37.
- Lin, K. M., Chen N. S., & Fang, K. (2011). Understanding e-learning continuance intention: A negative critical incidents perspective. Behaviour & Information Technology 30 (1):77-89.
- McLeod, S. A. (2014). Questionnaire. Retrieved from www.simplypsychology.org/question naires.html.
- Oliver, R. L. (1980). A cognitive model of the antecedents and consequences of satisfaction decisions. Journal of Marketing Research 17:460-69.
- Reinartz, W. J., M. Haenlein, and J. Henseler. (2009). An empirical comparison of the efficacy of covariance-based and variance-based SEM. International Journal of Research in Marketing 26 (4):332–44.

- Rezaei, S., Shahijan, M. K., Amin, M., & Ismail, W. K. W. (2016). Determinants of App Stores Continuance Behavior: A PLS Path Modelling Approach, Vol. 15, No. 4, 408- 440.
- Riquelme, I. P., and S. Román. (2014). The influence of consumers' cognitive and psychographic traits on perceived deception: A comparison between online and offline retailing contexts. Journal of Business Ethics 119 (3):405–22.
- Salanova, M., R. M. Grau, E. Cifre, and S. Llorens. (2000). Computer training, frequency of usage and burnout: The moderating role of computer self-efficacy. Computers in Human Behavior 16 (6):575–90.
- Sarstedt, M. (2008). A review of recent approaches for capturing heterogeneity in partial least squares path modelling. Journal of Modelling in Management 3 (2):140–61.
- Setiawan, S. (2018). Tahun 2017, Pengguna Internet di Indonesia Mencapai 143,26 Juta Orang. Retrieved from https://ekonomi.kompas.com/read/20 18/02/19/161115126/ tahun-2017-pengguna-internet-di-indonesiamencapai-14326-juta-orang, 12-07-2018.
- Shang, D., and Wu, W. (2017). Understanding mobile shopping consumers' continuance intention. Industrial Management & Data Systems 117 (1):213-227.
- Shank, D. B., and S. R. Cotten. (2014). Does technology empower urban youth? The relationship of technology use to self-efficacy. Computers & Education 70:184–93.
- Song, J., J. Kim, D. R. Jones, J. Baker, and W. W. Chin. (2014). Application discoverability and user satisfaction in

- mobile application stores: An environmental psychology perspective. Decision Support Systems 59:37-51.
- Teo, T. S., and V. K. Lim. (2001). The effects of perceived justice on satisfaction and behavioral intentions: The case of computer purchase. International Journal of Retail & Distribution Management 29 (2):109-25.
- Vekiri, I., and A. Chronaki. (2008). Gender issues in technology use: Perceived social support, computer self-efficacy and value beliefs, and computer use beyond school. Computers & Education 51 (3):1392–404.
- Widiartanto, Y. (2016). Pengguna Internet di Indonesia Capai 132 Juta. Retrieved from https://tekno.kompas.com/read/2016/10/24/15064727/2016.pengguna.interne t.di.indo nesia.capai.132.juta, 12-07-2018.
- Yamin, S., and Kurniawan, H. (2009). Structural Equation Modeling dengan Lisrel - PLS. Jakarta: Penerbit Salemba.
- Https://digitalpayment.telkomsel.com/abo ut. Accessed on 12-07-2018.
- Https://teknologi.id/insight/inilah-uangelektronik-terpopuler-di-indonesia-2017/. Accessed on 25-01-2019.
- Https://www.bankmandiri.co.id/e-money. Accessed on 25-01-2019.
- Https://www.bi.go.id/id/sistem-pembayaran/informasi-perizinan/uang-elektronik/penyelenggara-berizin/Pages/default.aspx. Accessed on 12-07-2018.
- Https://www.go-jek.com/go-pay/. Accessed on 25-01-2019.

Https://www.wartaekonomi.co.id/read175 286/tembus-20-juta-pengguna-tcash-yang-aktif- hanya-35.html. Accessed on 12-07-2018.