STUDENTS INTENTION TO USE TELKOMSEL CASH (T-CASH) (A TECHNOLOGY ACCEPTANCE MODEL APPROACH)

Tezza Adriansyah Anwar [1), Kurniawan [2), Sutrisno [3), Anik Sarwanti [4)

[1,3)Faculty of Medicine, Universitas Jenderal Achmad Yani, [2)Faculty of Economic, Nusa Putra University, [4)Universitas Widyatama
Corresponding author: adriansyah.anwar@lecture.unjani.ac.id

Abstract

Today, the digital world is increasingly developing in Indonesia. One of the banking products that take advantage of advances in digital technology is E-money (electronic money) which is motivated by Bank Indonesia Regulations. E-money is an effort to create a less cash society in Indonesia. Telkomsel as the leading telecommunication provider in Indonesia also supports the development of the digital world, by presenting Telkomsel Cash (T-Cash) since 2007. But until now, the number of T-Cash users who make transactions is still very small. This can be seen from the 2016 data, of which 6 million Telkomsel users, the target of T-Cash users was 153 thousand Telkomsel users but only 20 thousand were realised. In fact, these users have understood the ease of perception, benefit perception and risk perception from the use of T-Cash. The purpose of this study was to obtain the results of the study on ease of perception, benefit perception, risk perception, and how much influence it had on the desire to use T-Cash among Widyatama University students. The research method used is descriptive-verification method with respondents Widyatama University students who already have T-Cash. 150 students were used as samples using the purposive sampling method. Data collection is done through questionnaires, interviews and observations and literature studies. Path analysis is used in testing data. Consumers feel that T-Cash is easy to use in financial transaction activities. This is also supported by the many benefits that consumers receive when using it. Meanwhile, in terms of perceived risk, T-Cash is felt to be quite comfortable to use. Customers are also comfortable giving personal information when register-ing for T-Cash. However, consumers still have concerns about the possibility that at any time the balance on the T-Cash will be lost. Ease of perception is strong enough to have an impact on the desire of consumers to use T-Cash. Likewise with benefit perception. This shows that an increase in ease and benefit perception can increase student intention. Both of these can also be supported by an increase in risk perception, which, de-spite its low impact, can certainly also increase student intention. And these three variables have a major impact on student intention.

Keywords: Technology Acceptance Model, Student Intention, E-Money

Introduction

The digital world is increasingly developing in Indonesia (Rizkia; 2016). One banking product that utilizes the advancement of digital technology is E-money (electronic money) which is a means of payment that has the value of money stored electronically on a media server or chip (Wahyuningsih; 2016). Bank Indonesia recorded the number of E-money payment instruments circulating in the community has shown a significant increase (Haryanto; 2016). But 80 percent of transactions in Indonesia still use cash. In accordance with the results of the 2015 MARS Indonesia survey, the level of awareness of customers in 5 cities surveyed for e-money was still relatively low, only around 23.8 percent of the people knew him. This means that there are still 76.2 percent of consumers who are not aware of the payment instrument.

PT Telekomunikasi Selular (Telkomsel) which holds a market share of up to 45 percent and a coverage area of 95 percent of the population in Indonesia also supports the development of the digital world, by presenting Telkomsel Cash (T-Cash) since 2007. T-Cash which was originally a mobile payment SMS / USSD based innovations by combining convenience, practicality, security, and unique experiences in conducting non-cash transactions, by launching the latest innovation by implementing NFC (Near Field Communication) technology features released in October 2015, where payment transactions can be made with contactless payment via cellphone to make transactions at physical merchant stores (Sunandar; 2017).

In order to succeed in T-Cash in Indonesia, socialisation and collaboration with various merchants has been intensively carried out to attract users, apparently it has not been able to attract Indonesian consumers to use T-Cash. Although the number of Telkomsel Cash users (T-Cash) has increased from year to year, the rate of increase is still far from the specified target.

Table 1. Target and Number of T-Cash Users

T-Cash	2011	2014	2016
Target	100 million Telkomsel user[1]	130 million Telkomsel user[2]	153 million Telkomsel user[3]
Users	5,5 million user[1]	14,5 million user[2]	20 million user[1] (only 6 million active users)[3]
%	5.5%[1]	11%[2]	13%[3]

Source : Anindiati (2012)1, Saragih (2014)2, Ramdan (2016)3

Bandung is one of the big cities in Indonesia, is a city of tourism, shopping paradise, which is trying to establish itself as a "Smart City", contributes to the development of the digital world for its citizens. The city is known to have citizens who are creative and quick to absorb technology, so it has great potential for the adoption of digital financial services such as T-Cash. Telkomsel has also cooperated with 40 young culinary entrepreneurs in Bandung in order to expand T-Cash in Bandung (Ramdan; 2016). But so far, there have been very few T-Cash users in Bandung.

Table 2. T-Cash User in Bandung

Telkomsel user in 2011	6.000.000
T-Cash user in 2011	350,000 customers from 3.6 million residents of the city of Bandung who use Telkomsel ($\pm$ 9.7%).

Source : Anindiati (2012)

The digital era does provide convenience with various existing technologies, but not all new technologies can be easily accepted by the community because the process of receiving this new technology requires time and adjustments. The community in general prefers to transact manually because they think it will reduce risk (Adiyanti; 2015). Acceptance of technology by users is considered to be an important factor in the interest in using technology that will end in the use of technology. Users tend to choose to use a technology depending on how the technology is able to improve and improve their performance.

Acceptance model technology (TAM) is a model that is most often used to measure consumer acceptance of a technology which is influenced by perceived easy of use and perceived usefulness which will affect one's interest in using the technology. In the reception of financial services technology (in this case T-Cash) there are also other factors, namely the perception of risk and also promotions that can affect someone to interest in using T-Cash.

The purpose of this study was to obtain the results of the study on ease of perception, benefit perception, risk perception, and how much influence it had on the desire to use T-Cash among Widyatama University students.

Literature Review
Technology Acceptance Model

The theory of the use of information technology systems that are considered very influential and often used to explain individual acceptance of the use of new technological systems is the Technology Acceptance Model (TAM) is (Harlan; 2014). Davis (1989) in Lovita (2013) proposed that the technology acceptance model (TAM) explains the potential of users to adopt or use new information systems or new information technology. The main purpose of TAM is to establish a basis for tracking the influence of external factors on the attitudes and goals of computer users.

In TAM, acceptance of the use of information systems or technology is determined by two key factors, namely perceived usefulness and perceptions of ease of use which can influence attitudes towards use, which form behavioural intentions to use (behavioural intention to use) which finally forms behaviour (behav-ioral / actual system usage) that exists in individual users.
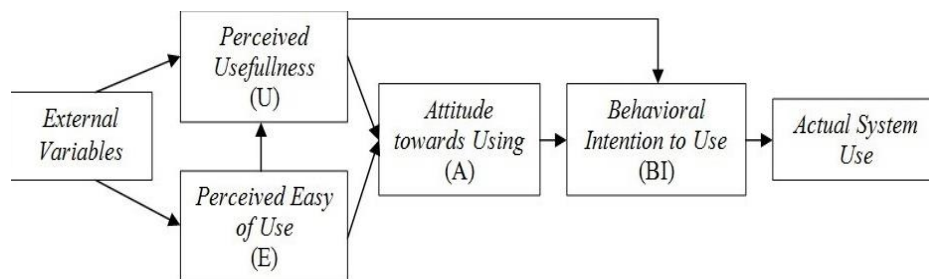
Source : Cheng, Lam, Yeung (2006)

Figure 1. Technology Acceptance Model (TAM)

Perceived of Easy of Use

Ease of use is defined as the belief of individuals where if they use a particular system it will be free from effort, if someone believes that a technology is easy to use then that person will use it (Matieson in Harlan 2014). Ease of use depends on a person's level of trust that the technology can be easily understood and the system used can be easily understood, operated and used.

Lee and Wan (2010) explain that some indicators of perceived ease of use include; information technology is very easy to learn, easy to be skilled in using information technology, information technology

is very easy to operate. Chauhan, (2015) conceptualise that perceived ease can be measured through indicators including: Easy to Use, Simple and Understandable, Trouble-Free.

Perceived of Usefulness

Perceptions of benefits or uses that a person feels are known from the level of trust in the use of a particular system provides a positive value for him in improving performance (Suhendro, 2009). Chauhan (2015) defines the perception of usability, namely the degree to which someone believes that using a technology will improve its performance. In this system of benefit perception, it forms a trust for decision making whether to use a technology or not. The assumption is that if someone feels that the technology is useful (in this case T-Cash) then he will have the intention to use it and can end up using the technology.

Chauhan, (2015) conceptualise that Perceived Usefulness can be measured through indicators including: Reduce Turnaround Time, Useful, Low Cost, Easy Transaction. Taylor and Todd (1995) (Wicaksono; 2014) stated that "the benefits of exposure to factors such as job easier, beneficial, productivity increases, enhance the effectiveness, and improve job performance".

Risk Perception

Perceived Risk is defined as the overall negative consumer perception of a number of actions based on the assessment of negative results and the possibility that these results will occur. The perceived risk includes two main concepts: negative results from a decision and the probability that the results will occur. According to Smadi (2012), perceived risk is considered as a customer's perception of uncertainty and also negative consequences for buying products or using services. Before using a technology someone would certainly consider the risks of such use. Trihastuti (2013) states that there are seven dimensions of risk from various sources, namely financial risk, product risk, privacy risk, social risk, psychological risk, security risk, and time risk.

Intention to Use

Kinanti (2013) Interest is the tendency of a permanent soul to pay attention and remember some activities or activities. So someone who is interested in an activity and pay attention to that activity must be based on pleasure and if there is a feeling of pleasure, then someone will consistently use it in the future. Fishbein and Ajzen, (1975) in Chauhan (2015) defines Intention to Use as the level of how strong a person's desire or drive is to do certain behaviours. Interest in behaviour can be seen from the level of use of a technology in someone so that it can be predicted from the attitude of attention to the technology, for example the desire to motivate other users.

Hypothesis

The research hypothesis is as follows:

- Ease of Perception affects student intention in using T-Cash.
- Benefit Perception affects student intention in using T-Cash.
- Risk perception affects student intention in using T-Cash.

Research Method

This study is conducted in Widyatama University and the students who have the T-Cash. The number of students can not be known because the campus does not have the data. Therefore, the population is unknown. Based on iteration method, this survey requires to gather the minimum data of 115 data. This survey succeeds in gathering 150 data to be analyzed. The pilot study was conducted to first 30 respondents and the results showed that the Cronbach's Alpha was more than 0.5 (Hair et.al; 2010). It means that the questionnaire is understood and targeted at the right audience. For data collection, purposive random sampling was done. In addition, path analysis was used in this study.

Result and Discusssion

Demographic Profile of Respondent

From 150 data that is analysed, female students dominate more. They have been users of e-money T-Cash for an average of 1 year and have never used it in transactions. Almost every day the student transacts using cash and debit cards. In addition, at least 1 hour in 1 day they surf in cyberspace and use social media.

Descriptive Analysis Results

The response of the student to ease perception, benefit perception, risk perception and student intention can be seen in Table 1 as follow :

Table 1. Descriptive Analysis Results

Average Score Of Variables	%	Category
Ease of Perception	77.64	Easy
Benefit Perception	78.05	High Benefit
Risk Perception	73.35	High Risk
Student intention	75.57	High Intention

Students feel that T-Cash is easy to operate and use. This rating is supported by the availability of instructions for using T-Cash. In addition, this is also supported by the flexibility of using T-Cash at existing merchants. Nevertheless, the number of available merchants is still limited.

T-Cash provides benefits for students because of its ease of transaction, where T-Cash can be directly used with TAP or SNAP on NFC machines. In addition, other benefits that are felt are saving time for transactions and being efficient when compared to cash transactions. However, the weakness of T-Cash is the limited amount of balance available so that its use is not as much if using cash, debit or credit cards.

Students feel that the risk of using T-Cash is quite high. This assessment was triggered by concerns about a failed transaction and loss of balance. This needs to be watched out by T-Cash, because the higher the risk perception, the consumer will be afraid to use T-Cash.

Students have a high desire to transact using T-Cash because of the ease of use and the number of merchants who can receive T-Cash. However, the number of merchants is not as much as the EDC machine for credit cards or debit cards. In addition, the limited number of balances on T-Cash has also become a bit of an obstacle for them to start using.

Hypothesis Testing and Discussion

After calculation for path analysis using Lisrell 8.80 (trial version), then the result of path diagram as the Fig. 1 below :
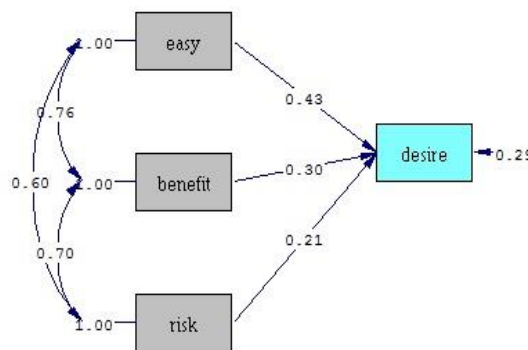

Figure 3. Path Diagram

In addition to the path diagram, also generated structural equations (influence of experiential marketing to customer value) as follows:

Structural Equations
desire = 0.43*easy + 0.30*benefit + 0.21*risk, Errorvar.= 0.29 , R^2 = 0.71
       (0.079)   (0.089)   (0.072)   (0.039)
        5.45   3.39   2.85   7.55

From the above structural equations, the hypothesis test for simultaneous and partial impact is as Table 2 below:

Table 2. Hypothesis Test For Simultaneous And Partial Impact

Hypothesis	F_{count}	F_{table}	Result	Statistical Conclusion
Ease of Perception, benefit and risk perception does not affect the student intention	140.78	3.072	Significant	H_0 rejected. Ease of Perception, benefit and risk perception affects student intention
Benefit Perception does not affect the student intention	3.39	1.98	Significant	H_0 rejected. Benefit Perception affects student intention
Ease of Perception does not affect the student intention	5.45	1.98	Significant	H_0 rejected. Ease of Perception affects student intention
Risk Perception does not affect student intention	2.85	1.98	Significant	H_0 rejected. Risk Perception affects student intention

The table above shows that ease of perception, benefit perception and risk perception has a significant impact on student intention. The impact of ease perception, benefit perception and risk perception on student intention can be seen in the following Table 3 :

Table 3. The Influence of Each Variables

Correlation	Coefficient	Impact		Total
		Direct	Indirect	
Ease of Perception on student intention	0.43	18.49%	15.22%	33.71%
Benefit Perception on the student intention	0.30	9.00%	14.21%	23.21%
Risk Perception on the student intention	0.21	4.41%	9.83%	14.24%
Total Impact				71.16%
Residual Factor				28.84%

Conclusion

Consumers feel that T-Cash is easy to use in financial transaction activities. This is also supported by the many benefits that consumers receive when using it. The advantage of using T-Cash for example saves time in terms of issuing cash or waiting for change so that the time needed can be abbreviated. But T-Cash is still felt to be less efficient compared to payments in cash, debit, or credit. Meanwhile, in terms of perceived risk, T-Cash is felt to be quite comfortable to use. Customers are also comfortable giving personal information when registering for T-Cash. However, consumers still have concerns about the possibility that at any time the balance on the T-Cash will be lost. In addition, consumers also want to use T-Cash because of the many benefits and conveniences provided.

Ease of perception has a significant impact on student intention in using T-Cash. Increasing the number and location of the merchant can increase student intention related to ease of perception.

Student intentions in using T-Cash are also quite affected by benefit perception. Added maximum balance can increase the use of T-Cash. Thus, customers can more freely transact using T-Cash.

Student intentions is also influenced by risk perception. Consumer concerns about T-Cash are based on Telkomsel's image as a telecommunications provider not as a banking institution. Another concern is the loss of the T-Cash balance. For this reason, cooperation with banks in operational and branding, can reduce risk perception from consumers. In addition, related to concerns about losing your balance, using a PIN can reduce risk perception. Also the availability of call centre to facilitate information and handling complaints can also reduce risk perception from consumers.

References

Anendo, 2016. Analisis Faktor-Faktor yang Mempengaruhi Minat Nasabah Bank Syariah Mandiri Terhadap Penggunaan E-Money. Skripsi Universitas Negeri Islam Sunan Kalijaga.

Hari, J.F., et.al., 2010. Multivariate Data Analysis, 7th edition, New Jersey : Pearseon Education, Inc.

Harlan, Dwimasta. 2014. Pengaruh Kemudahan Penggunaan, Kepercayaan Dan Risiko Persepsian Terhadap Minat Bertransaksi Menggunakan E-Banking Pada UMKM Di Kota Yogyakarta. Skripsi Universitas Negeri Jogjakarta.

Hurriyati, Ratih. (2010). Bauran Pemasaran dan Loyalitas Konsumen. Bandung: CV. Alfabeta

Indriastuti, Maya. 2014. Influences R-Money in Banking Sector. South East Asia Journal of Contemporary Business, Economics and Law, Vol. 4, Issue 2 (June) ISSN 2289-1560.

Kotler, Philip and Armstrong, Gary. 2016. Priciples of Marketing. 16th Edition. Harlow: United Kingdom

Kothari, C R and Grag Gauraf. 2015. Research Metholody. 3th Edition.Repro India Ltd: Mumbai.

Miliani, Lanidan Purwanegara, Mustika Sufiati. Adoption Behavior of E-Money Usage.

Jurnal Information Management and Business Review. Institut Technologi Bandung.

Peter, Paul and C, Jerry. 2005. Perilaku Konsumen dan Strategi Pemasaran Jilid 2. Erlangga. Sugiyono. 2016. Metode Penelitian Administrasi. Alfabeta: Bandung.

Setiadi, Nugroho. 2008. Perilaku Konsumen. Kencana: Jakarta

Suliyanto. 2011. Metode Riset Bisnis , Yogyakarta:CV. Andi Offset

Swastha, Basu Dan Irawan. 2011. Manajemen Pemasaran Modern, Yogyakarta; Liberty