THE CHANGE OF BANKING CULTURE: FACTORS AFFECTING ONLINE BANKING USAGE IN INDONESIA

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Abstract

Technological progress, especially in banking industry, encourages a change of banking culture from traditional banking to online banking. This research is aiming to find the factors of Indonesian online banking usage using Technology Acceptance Model (TAM). This research is important because the use of online banking has the potential to change peoples’ lifestyle in the use of banking service. This was a quantitative research, analyzing primary data which are collected using online questionnaire. Total respondents were 202, chosen by purposive and snowball sampling method. Several criterias are used to test the data’s validity and reliability. Hypothesis testing is done by using structural equation model, starting from perceived ease of use as independent variable, followed by perceived usefulness, attitude towards use and behavioral intention to use as mediating variables, and actual system usage as dependent variable. The result shows perceived ease of use significantly influences perceived usefulness and attitude towards use. Perceived usefulness significantly influences attitude towards use, but does not significantly influence behavioral intention to use, Attitude towards use significantly influences behavioral intention to use. Lastly, behavioral intention to use significantly influences actual system usage. So, it can be concluded that the TAM can be used to analyze the Indonesian online banking usage. This research is the first research, applying an original TAM on Indonesian online banking usage using SEM.

Keywords: Indonesia, Online Banking Usage, SEM, Technology Acceptance Model

1. Introduction

Historically, New York City Banks have tested online banking in 1981 for the first time. In the next 19 years, online banking features were adopted by 80 percent of U.S Banks (Sarreal, 2017), and 54 million households in US had access on their bank account electronically in 2009 (Pilcher, 2012).

Wadhwa (2016) has said that not only Bank of America but also Citigroup, who does branches restructuring and main channel shifting to mobile distribution. JP Morgan also focuses on millennial customers who contribute 57% of new account and are expected to use mobile banking. In Britain, the Clydesdale and Yorkshire Banking Group will invest hundreds of millions of pounds for online banking and technology platforms and close around 50 branches in order to save one hundred million pounds by the end of September 2019 Royal Bank of Scotland also has planned to close 32 branches because of the changes on consumers’ behaviour (Flinders, 2016). Meanwhile in Indonesia, Otoritas Jasa Keuangan (OJK) said that the numbers of e-banking users in Indonesia were increasing 270 percent from 13.6 million in 2012 to 50.4 million customers in 2016 (Fuad, 2017). PT Bank Tabungan Pensiunan Nasional, Tbk (BTPN) focuses on supporting e-channel by changing and restructuring the organization, branches, and workforce to go digitally (Sitanggang, 2017). Ariyanti (2015) reported that the citizens also rarely come to Bank Mandiri Branches. It becomes the reason why the bank decides not to expand
their business by building new branches. Moreover, they need to invest about IDR 1 billion for the new branches, while with e-banking they only need to build the system.

Each generation is found has different behavior in executing banking transactions. Based on Marston (2016), 70% of the transactions executed by millennial generations are executed through machines such as mobile, tablet, desktop, laptop and ATMs, without the interaction between the banker and the customers at the branch. Meanwhile, generation X also follows the millennial generations in adopting banking technologies, even though, not as much as millennials do. However, in Indonesia, Bank QNB Indonesia recorded that among 60 million persons who have bank account, only 30 million of them who use mobile banking channel (Utomo, 2017). Bank Rakyat Indonesia also stated that in the first quarter of 2014, only 1.38 million customers (6.7 percent) use online banking system out of 20.5 million ATM cardholders (Kumoro, 2014).

In banking industry, technological progress encourages the change of banking culture from traditional banking to online banking. Online banking has important roles and great impact in society, business and also for the banks. From the customers’ point of view, online banking offers more convenient and comfort way in conducting banking activities. Without visiting the branch, the customers can conduct banking transaction anytime and anywhere. Talking about “anytime”, online baking does give 24 hours access even when the banks are traditionally closed (Connell, 2017). From the business point of view, in the middle of their activities, online banking allows the business to save their time that is usually used to visit the bank for monitoring, transfer and paying bills. Now, they could do these activities anytime, anywhere, faster and easier (Bigredbook, 2015). Meanwhile from banks point of view, they could cut their operational expenses by reducing the branches and workforce and have less investment cost for the system (Sitanggang, 2017).

Financial industry especially banking industry has great contribution to the economic of a country, for example in United Arab Emirates (Abdeen, 2017). In other side of the world, when Central Bank of Malaysia had loss, Malaysia’s economy has been affected (Sivanandam & Ghazali, 2017). Hence, by cutting expenses and earn more revenue by adapting online banking, banks could contribute to better economy.

However, taking decision whether to close the branch or let the branch exists and whether to invest in branch expansion or online banking is not easy. Firstly, banks have to know the customers’ behavior on online banking usage. What factors influence citizens’ behavior on online banking usage? Since the banks’ potential customer is millennial generation, who born in 1980-1999 (Deen, 2015), yet they also should give the best services to their existing customer, who are not only millennial generation with the range age from 18 years old to above 65 years old (Mcdade, 2016). Moreover, if bank tend to invest in online banking they should know how they should develop the system. Hence the customers will use it frequently and the steps taken by the bank is not wrong.

Problem Statement
Previous studies, done by Tan et al. (2012) in Pescadores-Taiwan and Marakarkandy et al. (2017) in India found that the factors of Technology Acceptance Model (TAM), those are perceived ease of use, perceived usefulness, attitude towards use and behavioral intention to use have important role towards actual system usage. What about in Indonesia? Is the online banking well accepted by Indonesian? Does online banking change the banking culture, from traditional banking to online banking? What are the factors affecting the online banking usage in Indonesia? Hence the research questions are: Does perceived ease of use influences perceived usefulness and attitude towards use? Does perceived usefulness influences attitude towards use? Does perceived usefulness influences behavioral intention to use? Does attitude towards use influences behavioral intention to use? And does behavioral intention to use influences actual system usage?

The Important of Research
This study provides information regarding the acceptance level of Indonesian citizen towards online banking technology. From banks’ point of view, this study might become their reference to take any decision regarding online banking, especially in planning and developing their online banking system. This research is important because the use of online banking has the potential to change peoples’ lifestyle in the use of banking service.

**Brief Literature Review**

**Actual System Usage on Online Banking**

Online banking is managing bank account process or the operation act as a bank through the internet (Cambridge University Press, 2017). Meanwhile, based on Oxford University Press (2017) online banking is the banking method which the transactions are executed by machine through internet. It means online banking is a banking activities executed with a technology using gadget and internet as a media instead of face to face interaction between customers and banking clerk. Since there is no face to face interaction between customers and banking clerk, it could reduce the number of bank office, workforce and other tangible facilities. It might reduce the common bank operational cost, but need more investment on technological infrastructure.

**Technology Acceptance Model**

In 1989 Davis has developed TAM, which has purpose to identify the acceptance or rejection of users toward technology (Lindsay et al., 2011). This model consists of perceived ease of use, perceived usefulness, attitude towards use, behavioral intention to use and actual system usage. Those five factors could be explained below.

**Actual System Usage**

Actual system usage is conceptualized as the frequency and duration measurement of technology usage (Wibowo, 2006). Meanwhile, online banking usage could be measured based on the usage frequency and transaction diversity that has been executed (Kusuma & Susilowati, 2007). In other words, online banking usage could be defined as the customers’ real condition that using online banking measured based on usage frequency and transaction diversity executed by the customer (Ratnaningrum, 2013). In conclusion, actual system usage is the real conditions of banks’ customers where they execute diversify transaction through online banking measured by the durational and frequent of the usage.

Actual system usage was found influenced positively by intention to use (Rauniar et al., 2014). Association between behavioral intention to use and actual system usage also was found in previous research done by finding Marakarkandy et al., (2017). Sánchez-Franco & Roldán (2005) also expected that usage influenced by intention. Meanwhile, Alleyne & Lavine (2013) found that frequency of use was significantly affected by behavioral intention.

**Behavioral Intention to Use**

According to Stoel & Lee (2003), intention is defined as the probability a person will apply the technology one day. Marakarkandy et al. (2017) define behavioral intention to use as an individual subjective possibility in acting the behavior or the users’ possibility to keep in performing banking activities with internet in the next future. Thus, this study defines behavioral intention as the probability of a person to keep using online banking in the near future.

Previous study found that behavioral intention to use is positively influenced by attitude (Marakarkandy et al., 2017). Similar finding also stated by Bashir & Madhavaiah (2015) where attitude is the strong variable mediating other variable to behavioral intention, yet it has positive direct impact to behavioral intention. This finding also was supported by Stoel & Lee (2003). Another study showed that intention using the internet banking is significantly affected by perceived usefulness (Chong et al., 2010). However, this finding was not supported by Bashir & Madhavaiah (2015) who founds that perceived usefulness has no significant direct impact towards behavioral intention in using internet banking in India. The impact is significant if it is mediated by using attitude.

**Attitude towards Use**

Attitude could be defined as the nature of a person in giving respond positively or negatively towards something, someone,
organization, even towards distinguishable things (Marakarkandy et al., 2017). Positive and negative reaction of a person towards internet banking service usage could also explain the attitude definition (Bashir & Madhavaiah, 2015). Stoel & Lee (2003) define attitude as the emotion of a person about technology usage. Another definition is that attitude is the evaluation towards the technology usage, whether we like it or not (Ratnaningrum, 2013). Hence in this study, attitude is defined as the reactions of a persona toward the online banking usage, whether they accept and like it or not.

Several studies found that attitude towards using technology positively affected by perceived usefulness (Bashir & Madhavaiah, 2015; Marakarkandy et al., 2017; Ratnaningrum, 2013). Not only affected by perceived usefulness, attitude towards internet banking is also positively affected by perceived of use based on Marakarkandy et al. (2017).

Perceived Usefulness
Chong et al. (2010) defines perceived usefulness as the belief level of the customers that they could get more benefits by using online banking than do the transaction traditionally. Perceived usefulness also could be defined as the level of the person believing that they could improve their performance because of the technology usage (Ratnaningrum, 2013; Bashir & Madhavaiah, 2015; Marakarkandy et al., 2017). Hence, this study defines perceived usefulness as the level of how much people believes about benefit they will get from using online banking that could improve their performance more than doing the transaction traditionally.

Bashir & Madhavaiah (2015) found that perceived usefulness is significantly influenced by perceived ease of use. Marakarkandy et al. (2017) findings also accepted this hypothesis.

Perceived Ease to Use
The level of persons’ belief that they could use the technology with less effort even without efforts at all is defined as the perceived ease of use (Bashir & Madhavaiah, 2015; Marakarkandy et al., 2017; Pikkarainen et al., 2004). Ratnaningrum (2013) also said that perceived ease of use is defined as a measurement where a person believes that computer is easy to use and understand, which is also supported by Wibowo (2006). Perceived ease of use also conceptualized as evaluation of the mental efforts needed in new technology usage (Kesharwani & Bisht, 2012). Therefore, the evaluation of the easiness to use and understand the technology with less effort is the definition of perceived ease of use in this study.

Marakarkandy et al. (2017) found that perceived ease of use has positive impact on perceived usefulness and usage attitude toward internet banking. Similar findings were found by Bashir & Madhavaiah (2015). Another finding said that perceived ease of use influence attitude indirectly mediated by perceived usefulness, yet it significantly influences attitude directly (Stoel & Lee, 2003).

Research Gap
Different aspects make this research different than the others. This research is focusing on the online banking usage using original TAM framework, which is TAM 1 with 5 variables. Those are perceived usefulness, perceived ease of use, attitude towards use, behavioral intention to use and actual system usage; while previous study did by Marakarkandy et al. (2017) added external variable such as bank initiatives, internet banking self-efficacy, internet usage efficacy, government support, trust and perceived risk. The other studies did not use actual system usage and added external variable such as trust, perceived website design, perceived enjoyment, social influence and perceived risk (Bashir & Madhavaiah, 2015) or did not use behavioral intention to use without adding more variable (Ratnaningrum, 2013).

Moreover this research’s target population is Indonesian citizens who live both in Indonesia and overseas, who use online banking services, which provided by the banks established by Indonesian State Owned Enterprises, private sector, and/or foreign company. Compared to the previous study did in Indonesia, Ratnaningrum (2013) only focused in Denpasar and for the customers of Bank Central Asia, Bank Mandiri, Bank Negara Indonesia, Bank CIMB Niaga and Bank OCBC NISP, since those banks have
good reputation in banking industry. Marakarkandy et al. (2017) also only observed the customers’ of leading banks, which are national bank in India, through its branches in Mumbai.

Research Purpose
Based on those questions, this research aims to find out which factor influences the actual usage of online banking in Indonesia.

2. Method

Theoretical Framework
Based on TAM, the theoretical framework of this study could be seen in Figure 1.

Hypotheses
Based on Figure 1, the hypotheses are below:

1. H1: perceived ease of use influences perceived usefulness
2. H2: perceived ease of use influences attitude towards use
3. H3: perceived usefulness influences attitude towards use
4. H4: perceived usefulness influences behavioral intention to use
5. H5: attitude towards use influences behavioral intention to use
6. H6: behavioral intention to use influences actual system usage

Operational Definitions of Variable and Instrument
The operational definition of variable could be seen explicitly at the end of every variable’s explanation in Part 2.2 and implicitly in the research instrument (Appendix 1). Every variable has its own indicators. Totally, there is 26 indicators.

Those indicators are wrapped into a questionnaire, which is made based on previous studies. It was distributed by online. The questionnaire consists of 2 parts. The first part consists of the statement regarding the respondents’ profile, and the second part is about the variables’ measurements. The second part used 7 Likert-type scale, which “1” means extremely disagree and “7” means extremely agree.

Sampling Design
The population of this study is Indonesian online banking customers, with no exact number. Regarding the number of sample, based on Schumacker & Lomax (2010), for using SEM, the sample size between 200 and 500 responses is used by most of studies. Meanwhile, minimum sample size for SEM with sevens indicator for each variable or less is 150 (Joseph et al., 2010). Ferdinand (2002) said the sample size for SEM should not be too small or too large to earn good goodness of fit of the model. In order to determine the sample size, his study suggests to times the number of indicators of variable by 5-10. Since this study has 26 indicators, based on that formula, the required sample size of this research is 130 – 260. Therefore, the sample size of this research is 202. The 202 respondents are selected using non-probability sampling which is purposive and snowball sampling.

Data Analysis
According to Babbie (2010) and Muijs (2010), quantitative research uses a statistical analysis. Before doing statistical analysis, validity and reliability testing are needed. In order to test the data validity and reliability, several criterias such as KMO and Bartlett’s Value, Anti Image Correlation, Communalities, Total Variance Explained, Component Matrix, and Cronbach’s Alpha are applied. After validity and reliability testing, 2 types of statistical analysis were applied. A descriptive analysis is applied to figure out the respondents’ profile, and an inferential analysis is applied to test the hypotheses (Cooper & Schindler, 2011). For testing the hypotheses, SEM is used following a procedure and criterias as suggested by Joseph et al. (2010) and Dattalo (2013). The criterias include p-value, $R^2$ and critical ratio.
(CR) for testing the hypothesis, and some criterias for the goodness of fit of the model

Validity and Reliability Test

Table 1. Validity and Reliability Test Result

| Requirement | Perceived Ease of Use | Perceived Usefulness | Attitude toward Use | Behavioral Intention to Use | Actual System Usage |
|-------------|-----------------------|----------------------|---------------------|----------------------------|---------------------|
| KMO & Bartlett’s Value | >0.5 0.884 0.833 0.874 | | | | |
| Anti-Image Correlation | >0.5 0.866 0.828 0.885 0.952 0.753 | | | 0.891 | 0.871 0.771 0.837 |
| | 0.840 0.854 0.866 0.877 0.891 | | | | |
| | 0.900 0.821 0.848 0.871 0.771 | | | | |
| | 0.893 0.813 0.894 0.893 0.837 | | | | |
| | 0.900 0.869 0.886 0.888 | | | | |
| | 0.916 | | | | |
| Communaliites | >0.5 0.679 0.704 0.702 0.502 0.778 | | | | |
| | 0.709 0.564 0.744 0.646 0.539 | | | | |
| | 0.739 0.727 0.734 0.705 0.761 | | | | |
| | 0.684 0.767 0.580 0.718 0.713 | | | | |
| | 0.674 0.570 0.713 0.753 | | | | |
| | 0.529 | | | | |
| Total Variance Explained | >60% 66.88% 66.61% 69.46% 67.42% 69.78% | | | | |
| Component Matrix | >0.4 0.824 0.839 0.838 0.709 0.882 | | | | |
| | 0.842 0.751 0.862 0.804 0.734 | | | | |
| | 0.859 0.852 0.857 0.840 0.873 | | | | |
| | 0.827 0.876 0.762 0.847 0.844 | | | | |
| | 0.821 0.755 0.844 0.868 | | | | |
| | 0.727 | | | | |
| Reliability | Cronbach’s Alpha | >0.6 0.897 0.863 0.880 0.896 0.850 | | | |

Source:
- Joseph et al. (2010)
- Statistical Software Output

The result of validity and reliability test could be seen on Table 1. It shows that the data are categorized as valid and reliable, since all of the results are above the criteria. Therefore, the descriptive analysis and inferential analysis could be done.

Descriptive Analysis

Based on the data provided in Table 2, the respondents consist of 57.4 percent female and 42.6 percent male. The generation mostly use online banking and involves in this research is millennials generation (born in 1980 – 1999) with 93.6 percent and the rest is baby boomers generation (born in 1946 – 1964) with only 0.5 percent, generation X (born in 1965 – 1979) with 4.5 percent and generation Z (born in 2000-now) with 1.5 percent and none of them come from silent generation, who was born in 1925 - 1946.

Indonesian is confirmed as their citizenship, even though they live both in Indonesia and overseas, which are Thailand and Germany. The provinces of Indonesia, where the respondents live, are Bali, Bangka Belitung, Banten, DKI Jakarta, Jawa Barat, Jawa Timur, Kalimantan, Nusa Tenggara Barat, some provinces in Sulawesi and Sumatera Islands, and DI Yogyakarta.

They also stated that they have at least one bank account and use online banking services. They are also confirmed that they
have online bank accounts and online banking service at least one bank account. Surprisingly, there are 4 percent of them who have more than five bank accounts and the rest of them have one to five bank accounts. Eight banks become the first bank used by the respondents, which BCA, Mandiri and BRI become the top three of the most used online banking services among the respondents.

Lastly, 92.1 percent of them say that they would prefer being a customers’ of bank that provides online banking service rather than being the customer of those who do not.

### Table 2 Respondents’ Profile

| Item                  | Frequency | Percentage (%) |
|-----------------------|-----------|----------------|
| **Gender**            |           |                |
| Male                  | 86        | 42.6           |
| Female                | 116       | 57.4           |
| **Generation**        |           |                |
| Baby Boomers (1946 - 1964) | 1       | 0.5            |
| X (1965 - 1979)       | 9         | 4.5            |
| Millennial (1980 - 1999) | 189    | 93.6           |
| Z (2000 - now)        | 3         | 1.5            |
| **Citizenship**       |           |                |
| Indonesian            | 202       | 100.0          |
| **Domicile**          |           |                |
| Bali                  | 1         | 0.5            |
| Bangkok               | 3         | 1.5            |
| Banten                | 4         | 2.0            |
| Germany               | 1         | 0.5            |
| Jakarta               | 79        | 39.1           |
| West Java             | 69        | 44.2           |
| East Java             | 12        | 5.9            |
| Kalimantan            | 3         | 1.5            |
| West Nusa Tenggara   | 11        | 5.4            |
| Sulawesi              | 3         | 1.5            |
| Sumatera              | 14        | 6.9            |
| Yogyakarta            | 2         | 1.0            |
| **Number of Bank Account Owned** | | |
| 1                     | 74        | 36.6           |
| 2                     | 72        | 35.6           |
| **Item**              | Frequency | Percentage (%) |
| 3                     | 34        | 16.8           |
| 4                     | 12        | 5.9            |
| 5                     | 2         | 1.0            |
| More than 5           | 8         | 4.0            |
| **Preference on Banks Completed with Online Banking** | | |
| Yes                   | 186       | 92.1           |
| No                    | 16        | 7.9            |

Source: Statistical Software Output

**Inferential Analysis**

The first step in SEM is testing the structural equation model goodness. Five criterias of goodness of fit test are used in this research, which are CMIN/DF, PGFI, RFI, TLI, and RMSEA (Dattalo, 2013). Joseph et al. (2010) stated that three to four goodness of fit criterias already supported sufficient evidence to categorize the model as fit. Table 3 shows the result of goodness of fit test. It can be seen that the result has met the all five
criteria. So, it can be concluded that the model is categorized as good fit.

Table 3. Goodness of Fit Test

| Criteria     | Requirement | Result | Decision |
|--------------|-------------|--------|----------|
| CMIN/DF      | < 3         | 2.528  | Good Fit |
| PGFI         | 0 - 1       | 0.643  | Good Fit |
| RFI          | 0 - 1       | 0.813  | Good Fit |
| TLI          | 0 - 1       | 0.878  | Good Fit |
| RMSEA        | 0.00-0.05   |        |          |
|              | 0.05-0.08   |        |          |
|              | 0.08-0.10   | 0.087  | Mediocre |
|              | 0.10        |        |          |

Source: - Dattalo (2013)
- Statistical Software Output

Since the model is good fit, the next step, which is hypothesis testing, can be done. The hypothesis testing result could be seen in Table 4. The result shows that:
1. Perceived ease of use significantly influences perceived usefulness
2. Perceived ease of use significantly influences attitude towards use
3. Perceived usefulness significantly influences attitude towards use
4. Perceived usefulness does not significantly influence behavioral intention to use
5. Attitude towards use significantly influences behavioral intention to use
6. Behavioral intention to use significantly influences actual system usage

Table 4. Hypothesis Testing Result

| Regression Weight | Standardized Regression Weight |
|-------------------|--------------------------------|
| Perceived Ease of Use ➔ Perceived Usefulness | Perceived Ease of Use ➔ Attitude towards Use |
| 0.794 0.077 9.765 *** 0.778 | 0.497 0.078 6.412 *** 0.52 |
| Perceived Usefulness ➔ Attitude towards Use | Perceived Usefulness ➔ Behavioral Intention to Use |
| 0.461 0.081 5.707 *** 0.464 | -0.022 0.111 -0.201 0.84 -0.021 |
| Attitude towards Use ➔ Behavioral Intention to Use | Behavioral Intention to Use ➔ Actual System Usage |
| 1.018 0.151 6.722 *** 0.965 |Behavioral Intention to Use ➔ Actual System Usage |
The last step is about the $R^2$ value. Table 5 shows the $R^2$s. It means that the variance of perceived usefulness could be explained by perceived ease of use for 60.5%, the variance of attitude towards use could be explained by perceived ease of use and perceived usefulness for 86%, the variance of behavioral intention to use could be explained by attitude towards use for 89.6% and the variance of actual system usage could be explained by behavioral intention to use for 79.5%.

### Table 5. Squared Multiple Correlations ($R^2$)

| Variables               | Estimate |
|-------------------------|----------|
| Perceived_Usefulness    | 0.605    |
| Attitude_towards_Use    | 0.860    |
| Behavioral_Intention_to | 0.896    |
|                         | Use      |
| Actual_System_Useage    | 0.795    |

Source: Statistical Software Output

3. Result and Discussion

Based on the results, it is found that perceived ease of use of online banking directly significantly influences perceived usefulness and attitude towards use. This finding supports the finding from Marakarkandy et al. (2017) who did the research in India regarding internet banking and found that perceived ease of use has positive impact on perceived usefulness and attitude towards use. It is a big challenge for programmer or apps developer to produce as simple as possible apps that can be used by customers with less effort. The easiness of using technology will give positive impact on the usefulness and attitude towards use of online banking.

The other result is that perceived usefulness of online banking positively influences attitude towards use of online banking. This result is in-line with the result from Marakarkandy et al. (2017). More beneficial features will give more benefit to customers and increase their level of believing on technology usage. Finally, it will increase their attitude towards use of online banking.

Surprisingly, this research result shows that perceived usefulness of online banking has no significance effect on behavioral intention to use directly. Even though many previous studies found that this hypothesis is accepted, the finding of this research is supported by Bashir & Madhavaiah (2015), who found that perceived usefulness indeed has no direct impact towards behavioral intention to use internet banking in India. However, they also stated that the impact of perceived usefulness on behavioral intention to use online banking is fully mediated by attitude towards use. Hence, the situation in Indonesia this period could be reflecting the situation in India back then. Even though online banking is already introduced, but the citizens of Indonesia still have no intention to use it. It might relate with the Indonesia’s low rank in literacy. A study done by Central Connecticut State University shows that Indonesia is the second worst country from 61 countries, in term of literacy (Gunawan, 2016). In financial aspect, the Indonesian financial literacy is considered to be in the low level (Yap et al., 2016). The other reason is because they still have doubt about its security and difficulties in operating a banking’s apps (Radar Banjarmasin, 2016). In 2015, the cyber-crime happened and caused average loss per person reached USD 358 in 17 countries. Moreover, Indonesia is expected to be the riskiest country to experience cyber-crime (II, 2015).

Different with the above result, attitude towards use significantly influences behavioral intention to use online banking facilities. It supports the result of Marakarkandy et al. (2017). It is not difficult to understand that a positive attitude on online banking will increase the intention to use it. It will increase the probability of customers to keep using online banking in the future.

The last result is behavioral intention to use online banking significantly influences actual
system usage. This result supports the result of Marakarkandy et al. (2017). All the hypotheses are in-line with the previous studies made in India. In term of the countries and citizens, India and Indonesia are categorized as developing countries, with almost same characteristics. Both countries have large population, which respectively reaches 1,335 Million in India and 262 Million in Indonesia in early 2017. In India, 33 percent are urban population, while Indonesia is 55 percent (Chakraberty, 2017; Pratama, 2017). Multiple and various religions, cultural customs, languages and ethnicities are easily found in these two countries. Compared to the European countries who think that ideal nation state is that who has one religion, one language and one ethnicity, India and Indonesia successfully lead their nation with their own identity by respecting and appreciating the differences (Aiyar, 2017).

In term of technology, in early 2017 the number of internet users in India and Indonesia respectively reaches 35 percent and 51 percent of the total population. Not only actively using internet, some of them also actively using social media, which the number reaches 14 percent and 40 percent of the total population, 13 percent and 35 percent of them are the active mobile social users (Ecommerce.com, 2017). Surprisingly, a survey held by Microsoft showed that Indonesia and India as the developing countries have the same point of views and behaviour, especially in adopting the technology. Based on Karimuddin (2015), the result of the survey said that the twelve countries, who participated includes Indonesia and India, are worries about the privacy. However, India and Indonesia know which private data are collected. Compared to the developed countries, most of India and Indonesia citizens agree that personal technology has positive impact toward the social life, sharing economy is better than the traditional one for the society, and they are interested to work related with technology.

It could be concluded that the citizens in Indonesia and in India has the similar acceptance of technology. They are open towards adopting the technologies. As long as the technologies are easy to use and useful, they give positive reactions, have intention to use, even perform the technologies. These phenomena support the change of banking culture from traditional banking to online banking. It gives positive impact on banking industry, which will be more efficient, faster and easier to deliver the banking products and services to consumers.

4. Conclusion

There are five hypotheses that are accepted and one is rejected. The result shows perceived ease of use significantly influences perceived usefulness and attitude towards use. Perceived usefulness significantly influences attitude towards use, but does not significantly influence behavioral intention to use. Attitude towards use significantly influences behavioral intention to use. Lastly, behavioral intention to use significantly influences actual system usage. So, it can be concluded that the all variables of TAM significantly influences Indonesian online banking usage.

In developing the online banking services the bank should prioritizing the ease of use and the usefulness of the services. Ease of use of online banking could be developed by using simple layout of the website or application (Guglieri, 2017). Category that is defined clearly and visually could help the customers find what they look for easily (De Geyter, 2012). Short and informative content and easy to read, navigate and understand site make the customers stay using the online banking application or website (Spirtz Web Solutions, 2012). Based on Bank of Montreal (2003), the level of usefulness of online banking could be increased by providing more various features such as transferring fund, paying bills, filling taxes, and other features of transaction or activities that can be done simply by accessing one application and website. Hence, by increasing the ease of use of online banking usage could increase the usefulness of it at the same time, which results more positive attitude from the customers.

Bank also should pay attention to how the customers feel and react in using online banking, which is used to be called as
attitude. Safety and security are the aspect that bank should consider. In order to prevent the cyber-crime, the bank could keep upgrading the system and protect the computer, improving the security by training the employees and preparing the bank for the possibility of cyber-crime (Nwazor, 2017). By feeling secure, the customers trust to use online banking. Not only increasing the positive attitude, the bank could overcome the problems that the customers do not have intention to use online banking because of doubt in security, even though they know that online banking is useful.

Without any needs to do transaction, then the customers will not use online banking nor visit the branches. The bank could develop some promotions, such as by doing transaction in online banking the customers could earn direct deposits (Bakke, 2018), or any programs related to online banking usage, which even could attract the new customers to use online banking (Suttle, 2018). Hence, by increasing the customers’ intentional to use in the future, the actual usage of online banking is not impossible to realize.

Remembering the limitation of this study, the next research that will be made in Indonesia or other countries, cluster sampling technique is recommended. Hence all the regions and generations could be represented by the sample. The value of $R^2$ in this study proofed that there are more variables that could explain the variables used in this study, hence, it is recommended that the next research using more variables such as security, which is one factor that make the people in Indonesia are doubt to use online banking.

In the start of the 19th century the people realized that social and cultural change were possible happened. Not only social and cultural change, the idea that young people could against the establishment, also possible to happen. Then, the people came up with naming the generation, where different generations have different characteristics such as millennial who are familiar with communications, media and technology (Moloney, 2017). Based on this information, the future research is recommended to study deeply regarding the online banking usage in each generation with its each characteristics, since bank provides different approaches to different customers (Holmquist, 2016). Supported by technological progress, it will encourage the change of banking culture, from traditional banking to online banking.

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