

The Effect of Mobile Banking On User Satisfaction and Loyalty through the Quality of Mobile Banking Service (Study on Banks in East Java)

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Abstract—Background of this research is dramatic development of Mobile Banking in Indonesia. It is so obvious because m-Banking service has provided an unhampered practical financial transaction through cellular phone such that the user is capable to operate online banking transaction in any times and places. Mobile Banking can be used to access whole online banking transaction including ATM (Automatic Teller Machine), except the cash withdrawal facility. This research is focused on the acceptance and the use of information technology in Mobile Banking, and therefore, the customer of Mobile Banking is categorized as the user. Based on some researches, the system usage becomes a main instrument to accept the technology. Indeed, this research considers Mobile Banking user as the instrument of Mobile Banking acceptance. This research attempts to explore the variables affecting the use of Mobile Banking such as perception of security, perception of new product adoption, perception of IT knowledge, perception of internet connecting quality, and quality of Mobile Banking service. Mobile Banking creates satisfaction and loyalty of the user. Therefore, user satisfaction represents a response and feedback given by the user after using Mobile Banking. The attitude of user toward Mobile Banking becomes a subjective criterion of how like of the user to the system. The analysis tool is Structural Equation Modeling (SEM). Based on the direct effect between variables, it seems that of seven hypotheses proposed, six hypotheses have significant effect and only one has non-significant effect. Result of this research indicates that Mobile Banking service has non-significant but positive effect on user loyalty. It shows that the facility of Mobile Banking is not ensuring user loyalty to use Mobile Banking. The progression of telecommunication technology and banking technology is introducing the user with new application and new facility. However, it is not increasing user loyalty to certain service because the user is using the service based on the demand.

Keywords—Mobile Banking, Security, New Product Adoption, IT Knowledge, Internet Connection Quality, Service Quality, User Satisfaction, User Loyalty

I. INTRODUCTION

Mobile banking provides many benefits for users due to its fast transaction and ease of use at anytime and anywhere by only using smartphone device. Users no longer need to go to the bank office or nearby ATM (Automatic Teller Machine) and the transaction is instantly accepted through the online system. Therefore, having mobile banking is just the same as having personal ATM that is online for 24 hours.

The development of cellular technology and the mobile living of society nowadays are also considered as one of the distribution channels that has the potential to meet the needs of customers. The technology of SMS and WAP on mobile device is likely to be a potential infrastructure for conducting certain transactions. In order to realize this, the mechanism of transactions through mobile device has become a reality by the existence of Mobile Banking system.

One of the online systems of banking application is the Mobile Banking. Mobile Banking is a combination of information technology, telecommunications, and banking systems, thus establishing banking services based on the cellular telecommunication [1].

Mobile Banking is the latest solution in mobile banking transactions, therefore, the cooperation among providers of banking services, network providers and SIM gateway toolkit providers should be able to make the banking system software available in hardware which is 32 kilobytes card system and also available in dual band mobile phones that is able to run according to the procedures and have been carefully considered about the security of customer data or Mobile Banking users.

Mobile Banking is one of the new alternative options in doing financial transactions, therefore, both banking customers and cellular subscribers are still hesitant to try electronic banking services by using cellular phone. The reason behind it is due to the concerns if there is a mistake in the transaction caused by human error and also security of the data. On the other side, some people that are concerned about technological developments and new product developments tend to adopt new task-oriented products (task oriented outcomes) where information technology helps users achieve interrelated goals and tasks such as efficiency and task effectiveness.

In addition, Mobile Banking service is relatively safe since it uses multiple security system from telecommunications provider cellular and also from the network of the banking system. Thus customers do not have to worry about their use. Those are the factors that make Mobile Banking service growing rapidly, rivalling other e-banking services, and will become an alternative banking service in the future.

Compared to the other e-Banking services, the development of Mobile Banking (m-Banking) is regarded as the fastest based on the results of an international financial

research institution survey. It is because the presence of m-banking service is able to meet the demands of modern society that is highly promoting mobility. With a single touch, m-Banking creates the convenient banking services in hand.

This study was conducted on the acceptance and the use of information technology in Mobile Banking service, therefore, banking customers or the customers of Mobile Banking were categorized as users. In accordance with several studies [2] [3], the usage system is the main instrument of technological acceptance. Hence this study applied Mobile Banking use as the instrument of Mobile Banking acceptance.

Mobile Banking is able to generate user satisfaction and loyalty. User satisfaction itself is the response and feedback from the user after using Mobile Banking. User attitude towards Mobile Banking is a subjective criterion of how user likes the system. Mobile Banking User Satisfaction is reflected by the number of complaints, the frequency of negative word of mouth from other customers and small intensity of defection (switch to competitors). On the other hand, user loyalty is the perception of Mobile Banking users where Mobile Banking Service has fulfilled the needs so that users remain subscribed or loyal to the service.

A survey from international financial research institutions revealed that 35% of all online activities done in every house around the world will switch to m-Banking services. It is predicted that the value of Mobile Banking transactions will potentially double per year, and the next will increase to a fourfold after 2011 [4].

In Indonesia, the use of Mobile Banking by banking customers has increased significantly with an average increase of 135.3% per year. In 2003, Mobile Banking users were only about 315 thousand users, but four years later (2007) has become 8.2 million users. The number of mobile banking user in 2008 was expected to increase by 50% with the number of 12.32 million users. Currently, almost all banks have applied m-Banking service [4].

Based on the study from MARS Indonesia in "Study on Mobile Banking Market share & Customer Behaviour in 2008/2008", there were at least 3 main reasons why bank customers need m-Banking services; 1) Practical, since they do not need to come to the bank or ATM (46.5 %), 2) Faster Transactions (32.7%), and 3) Ease of use for checking balances (17.8%) [4].

Based on the research conducted by Pikkarainen, et al. [3], which tested the use of Mobile Banking based on several considerations regarding TAM's prediction ability, such as the addition of perceived enjoyment construct, the amount of information, security and privacy, and the quality of internet connection or SMS connection through quantitative studies. Moreover, [5] tested the factors that influence the adoption of Mobile Banking electronically in which test security variables, adoption of new products, IT knowledge, quality perception by conducting qualitative studies. Further research conducted by Shammot & Al-Shaikh [6] examined the ease of use of Mobile Banking Services through website or internet, and research conducted by Floh and Treiblmaier [7]; Shuh Lii [8].

Furthermore, based on those studies, the author aims to develop the TAM modification by examining the use of

Mobile Banking in East Java. The use of Mobile Banking that is related to Security, New Product Adoption, IT Knowledge, Internet Connection Quality will influence the transaction success, access speed and ease of obtaining information so it can build a good service quality of Mobile Banking. This study is aimed to correlate TAM modification through quantitative study to Mobile Banking user in East Java. To analyse more about the quality of Mobile Banking service, the researcher connected it with user satisfaction and loyalty, so that this research is expected to enrich the study of management of Information System and Marketing Science.

This study examined the use of Mobile Banking in East Java to determine the quality of service and its effect on user satisfaction and user loyalty. East Java was selected as research location and represented by three cities; Malang, Jember and Surabaya. Those cities are considered representative due to a high number of banking business.

Considering the result of previous research about Mobile Banking which has been only examining the effect of Mobile Banking usage, the researcher wants to develop the study through TAM modification by connecting the study of Marketing Science to observe the satisfaction and loyalty of Mobile Banking user. Therefore, the author is interested to reveal the phenomenon of the Effect of Mobile Banking Service on User Satisfaction and User Loyalty (Study on Mobile Banking User in East Java Province).

II. LITERATURE REVIEW

The theoretical basis for this study consists of several matters that will explain the theories related to the title and the problems in detail. The basic theory in this research begins from the theories about Mobile Banking services to comprehend in more detail and in-depth about the definition of Mobile Banking services namely banking service transactions by using mobile device with internet technology and online facility of transaction banking. Further theories comprise the concept of Mobile Banking usage and variables of Mobile Banking service quality, user satisfaction, and user loyalty.

A. Security

The encryption system of Mobile Banking is end-to-end encryption with block encryption techniques. So, the encryption is done on Mobile Server, while decryption is done on the bank server. The mechanism of encryption system performed for each transaction will create difficulty for the hackers who want to hack the pin and password of certain user. The maximum error for pin and passwords input is limited on 3 and the account will then be directly blocked by the bank server.

Mobile banking users demand the security features; secure communication, authentication, against fraudulent and no repudiation. In this study, the security of Mobile Banking is reflected in the availability of password and pin, disruption of transaction network, and availability of transaction documentation record [5]; [9].

H1: The security in using Mobile Banking has significant effect on Mobile Banking Service Quality.

B. of New Product

Adoption of new product is the behavior and interest of users to use new technology that will take time to learn a product, experiment with the new product and end up using it. The process of diffusion is the macro process of disseminating new products or an innovation from the source to the consuming community. While the adoption process is defined as a micro process over the stages that individual users go through the decision to accept or reject new products.

Howcroft, Robert, and Paul [10] suggested that there are several variables affecting the adoption process of Mobile Banking. Variables that strengthen the rate of adoption are low-cost or fees, improved service quality, save time and 24-hour service. Meanwhile, the variables that impede the Mobile Banking adoption process are security, error rate, complexity, and the absence of face-to-face services. In this study, the variable of new product adoption in Mobile Banking consists of portable technology, technology with latest innovation facility and beneficial technology to help the work [5]; [11].

H2: Adoption of New Product (Mobile Banking) has significant effect on Mobile Banking Service Quality.

C. Knowledge of Information and Technology

Knowledge Information Technology (IT) is a necessary resource in the process of acceptance and utilization of Information Technology itself. Knowledge includes the capabilities and skills of end users of Information Technology (IT). Ability and skills are derived from the IT education and training that has been attended.

In this research, knowledge of Information Technology (IT) is reflected in the introduction of Mobile Banking technology, the introduction of Mobile Banking hardware and software equipment, and the operational skills of Mobile Banking [12]; [13]; [5].

H3: Knowledge of IT in Mobile Banking has significant effect on Mobile Banking Service Quality.

D. Quality of Internet Connection

At a glance, Quality of Service is perceived as the quality of a service. In fact, quality of service is widely known and comprises many terms that are commonly seen from different perspectives of networking, application development and so forth.

In terms of networking, quality of Service refers to the ability to provide different services to network traffic with different classes. The ultimate goal of service quality is to provide better-planned network services with dedicated bandwidth, jitter and controlled latency and increased loss characteristics. Quality of Service is the ability to guarantee the delivery of important data flows or in other words a collection of performance criteria that determines the satisfaction level of the user.

In this study, the quality of internet connection is reflected in the extensive cellular operator signal network,

the guarantee of transaction success rate, as well as the real-time network traffic system [14]; [3].

H4: The quality of Internet connection in Mobile Banking has significant effect on Mobile Banking Service Quality.

E. Quality of Mobile Banking Service

Quality of Service is measured by the evaluation made by the users based on the experience of using the product or service. Quality is measured from the level of personal needs, reliability, and error rate of the product or service. Quality of Service is also measured by the relativity of quality at the price paid.

User behavior is an attitude that is shown in searching, purchasing, using, evaluating, and defining or selecting products, services, and ideas that are expected to fulfill the needs. In this study, quality of Mobile Banking service is reflected in the ease of access, good reputation as one of banking electronics, and ease of transaction control.

H5: Quality of Mobile Banking Service has significant effect on User Satisfaction.

F. User Satisfaction

User satisfaction is the response and feedback that appear after using the information system. User attitude towards the information system is a subjective criterion of how much the user likes the system.

In this study, user satisfaction is reflected by the number of user complaint, pride in using Mobile Banking, the feeling that online banking service is more effective, comfortable feeling in using Mobile Banking, and Mobile Banking suitability with user expectation [14]; [15].

H6: Quality of Mobile Banking Service has significant effect on User Loyalty.

G. User Loyalty

Shergill and Li [16] defined loyalty as the intention of users to re-use Mobile Banking based on their experiences and expectations in the past. The stages of loyalty are divided into 4. The first stage is cognitive loyalty, this is where he user uses information base forcefully by referring to one brand over other brands. So the loyalty is based on the user's belief on the information base that is reflected by the brand quality. This first stage loyalty is not a form of strong loyalty.

The perception of e-Loyalty is a crucial factor of the online business (e-Commerce) since e-Loyalty is the determinant of keeping the cash flow for the company from customers or consumers. E-Loyalty perceptions were measured using three question items based on research conducted by Cry [17].

H7: The satisfaction of Mobile Banking User has significant effect on User Loyalty.

Previous studies supporting this research are:

1. Mantel [5]
2. Shammot & Al-Shaikh [6]
3. Tam Tsui Wa [15]

All of the hypothesis showed by Fig.1



Figure 1. Hypothesis Test

III. METHOD

A. Research Design

This research used explanatory design that is intended to explain the position, the correlation and the influence among variables [18]. Hence, this research provides an explanation of the use of Mobile Banking which consists of the perception of Mobile Banking security (X1), Perception of new technology (MB) adoption (X2), Perception of TI knowledge toward Mobile Banking (X3), Perception of internet connection quality (X4) and Mobile Banking services quality (X5) toward User satisfaction (Y1) and User Loyalty (Y2).

B. Location

The study was conducted on Mobile Banking users in East Java. The subject of this research was the user of Mobile Banking application. Mobile Banking users are customers of enterprise providers and customers of banking companies.

Employees and the general community can be the subject of research as long as they are users of Mobile Banking services. In this study, the number of samples was 130 respondents (5 times indicators in this study, $26 \times 5 = 130$). Data analysis method of this research was using Structural Equation Modelling (SEM). All of the indicator showed by Table 1.

Table 1. Operationalization of Research Variable

VARIABLE	INDICATOR	
Perception of MB security (X ₁)	X _{1.1} X _{1.2} X _{1.3}	<ul style="list-style-type: none"> ▪ Availability of password dan PIN ▪ Disruption of transaction network ▪ Availability of transaction record
Perception of new technology (MB) adoption (X ₂)	X _{2.1} X _{2.2} X _{2.3}	<ul style="list-style-type: none"> ▪ Comprehension of Mobile Banking operation ▪ Having cellular device with the latest features and internet support ▪ Information technology provides ease in carrying out various activities in modern life
Perception of TI knowledge toward MB (X ₃)	X _{3.1} X _{3.2} X _{3.3}	<ul style="list-style-type: none"> ▪ Introduction of Mobile Banking technology ▪ Introduction of Mobile Banking hardware and software ▪ Helping online transaction
Perception of internet connection quality (X ₄)	X _{4.1} X _{4.2} X _{4.3}	<ul style="list-style-type: none"> ▪ The breadth of mobile operator's signal network ▪ The success of Mobile Banking transaction ▪ The content of Mobile Banking service
Mobile Banking services Quality(X ₅)	X _{5.1} X _{5.2} X _{5.3}	<ul style="list-style-type: none"> ▪ Using Mobile Banking is easy for accessing the electronic banking. ▪ Using Mobile Banking is easy for doing online banking transaction. ▪ Using Mobile Banking is easy for learning the information.
User satisfaction (Y ₁)	Y _{1.1} Y _{1.2} Y _{1.3} Y _{1.4} Y _{1.5} Y _{1.6}	<ul style="list-style-type: none"> ▪ The number of complaint from user ▪ The frequency of negative word of mouth from another user ▪ Intensity of defection (switch to the other brand) ▪ User satisfaction toward Mobile Banking service ▪ The success Mobile Banking transaction ▪ Conformity of Mobile Banking service with user expectations
User Loyalty (Y ₂)	Y _{2.1} Y _{2.2} Y _{2.3} Y _{2.4} Y _{2.5}	<ul style="list-style-type: none"> ▪ Subscribing Mobile Banking transaction ▪ Subscribing certain cellular provider and certain bank ▪ Giving reference for using Mobile Banking service ▪ Purchase intensity or the use of Mobile Banking service ▪ The users use Mobile Banking service according to the need

IV. RESULT AND DISCUSSION

A. Field Work Program

Based on the empirical model of this study, the hypothesis test can be obtained by Path coefficient in Structural Equation Modelling. Table 2 demonstrates the result of hypothesis test based on the p-value of each variable, if the p-value is less than 0.05 then the variables have significant influence. The summary of Structural Equation Modelling result is showed in the following Table 2. In general, the result revealed that six path models are significant, whereas one path model is not significant. The interpretation of table 3 can be explained as follows:

Mobile Banking security has significant and positive effect on Mobile Banking service quality with p-value off 0.000 (<0.05) with coefficient value of 0.360. The is coefficient indicates that if there is a guarantee of good ssecurity, the user will trust more in using Mobile Banking service since there is no doubt about data theft issue which then generates the perception that mobile banking has a good service quality.

Perception of New Product Adoption using Mobile Banking has significant and negative effect on Mobile Banking Service quality, showed by p-value of 0.000 (<0.05) with coefficient value of -0.325. This coefficient indicates that if there are more provider offer new products, then the perception of new products adoption in using Mobile Banking will be increased the difficulty to users in using User Satisfaction has significant and positive effect on user loyalty with p-value of 0.000 (<0.05) and coefficient value 0.468. This result demonstrated that if users are satisfied with

Mobile Banking since the user must learn to understand the applications.

Perception of IT Knowledge in using Mobile Banking has significant and positive effect on Mobile Banking Service quality. This result showed by p-value of 0.002 (<0.05)with coefficient value of 0.281. Therefore, the good IT knowledge will motivate the users to use Mobile Banking service as they are familiar with IT applications.

Internet Connection quality for Mobile Banking has significant and positive effect on Mobile Banking service quality with p-value of 0.000 (<0.05)with coefficient value 0.448. This coefficient describes that the better the internet connection quality, the better the perception of mobile banking users in which they feel that it has good service quality. This is mainly because of success of mobile banking transactions obtained by the user.

Mobile Banking Service quality has significant and positive effect on user satisfaction which showed by p-value of 0.000 (<0.05) and coefficient value of 0.512. This coefficient represents that if Mobile Banking Service is supported by reliable security, adequate knowledge toward IT and completed by good Internet connection, then Mobile Banking user will feel that the service is good and make user more satisfied. Mobile Banking Service quality has a positive and not significant effect on user loyalty with p-value of 0.245 (> 0.05)and coefficient value 0.138. Hence, good Quality of Mobile Banking Service does not guarantee the loyalty of user in using Mobile Banking.

Mobile Banking service, they are likely to be loyal in using Mobile Banking.

Table 2. Hypothesis Testing Results

HIP	Independent Variable	Dependent Variable	Direct Effect		
			Standardize	p-value	Interpretation
H1	Mobile Banking security	Mobile Banking service quality	0.360	0.000	Significant
H2	Adoption of new technology (MB)	Mobile Banking service quality	-0.325	0.000	Significant
H3	IT knowledge toward Mobile Banking	Mobile Banking service quality	0.281	0.002	Significant
H4	Quality of internet connection for MB	Mobile Banking service quality	0.448	0.000	Significant
H5	Mobile Banking service quality	User satisfaction	0.512	0.000	Significant
H6	Mobile Banking service quality	User loyalty	0.138	0.245	Not Significant
H7	User satisfaction	User loyalty	0.468	0.000	Significant
Indirect Effect					
	Independent Variable	Intervening Variable	Variable	Standar dize	Interpretation
	Mobile Banking security	Mobile Banking service quality	Satisfaction	0.184	Significant
	Adoption of new technology (MB)	Mobile Banking service quality	Satisfaction	-0.166	Significant
	IT knowledge toward Mobile Banking	Mobile Banking service quality	Satisfaction	0.144	Significant
	Quality of internet connection for MB	Mobile Banking service quality	Satisfaction	0.229	Significant
	Mobile Banking service quality	User satisfaction	Loyalty	0.240	Significant

B. Research Findings

The originality of this research is the enrichment of TAM model with the addition of external variables to predict the use of Mobile Banking in which the test of security variable, adoption of new product, knowledge of Information Technology (IT) and the quality of internet connection toward Mobile Banking Service quality in order to determine

the correlation of user satisfaction and user loyalty. In this study, the research subject is the Mobile Banking user.

The results revealed that Mobile Banking Service quality has non-significant and positive effect on user loyalty. This indicates that the level of service quality perceived by the user although in fact leads to satisfaction and loyalty, but users tend to use the services of different vendors altogether in accordance with their needs. Hence the user of Mobile Banking services can be said to be disloyal to only one

brand. It is likely to be the current phenomenon that an individual can beat customer of more than one banking and provider. The tendency of Mobile Banking users is a categorized as prepaid subscriber which shows that ease of use and practical registration system is preferred by users.

The variable of new product adoption significantly influence the Mobile Banking Service quality, however, the correlation between these two variables is negative. This means that the higher the rate of new product adoption, the lower the Mobile Banking Service Quality perceived by users as they find difficulty in learning new applications offered by the vendor. Thus, it can be argued that adoption of new products, especially Mobile Banking users in East Java, is more concerned with the trial and error of new services provided by vendors but tend to feel difficult or lazy to learn new products or services.

There is an indirect effect among the security of Mobile Banking service (X1) on user satisfaction (Y2) through Mobile Banking Service quality (Y1). The indirect effect is significant as the coefficient of indirect influence is marked positive which demonstrates both influences have the same directions. This means that the better the Mobile Banking security (X1), the better the Quality of Mobile Banking Service (Y1) which then results in higher user satisfaction (Y2).

The results of this study found that 80.77% of Mobile Banking users have more than one sim card in the provider company while the type of sim card used is included in the category of prepaid subscribers. This shows that easy and practical registration system is preferred by users.

C. Research Limitations

A number of findings have been obtained from the results of this study, nevertheless, there are some limitations that can be used as a consideration for future studies in the future. Limitations of this research are described as follows:

1. This study focused only on Mobile Banking users, namely the users who perform transactions by using cellular device, whereas internet banking, e-commerce, and other banking electronics are not discussed in this study.
2. This study is limited to the area of East Java Province which was represented by three cities (Malang, Surabaya, and Jember). Moreover, the number of samples was only 130 respondents.
3. This research used Cross Section data which obtained only in one period of time. Therefore, the development of the period of time from analysis unit cannot be obtained in this research.
4. Data collection on this research only focused on data obtained by questionnaires. Therefore, data were purely subjective and difficult to be controlled by the researcher since it is hard to know the seriousness and honesty of respondents in answering the questionnaire.
5. Further research is suggested to add the variable of trust between the variable of user satisfaction and user loyalty as trust plays an important role in the use of Mobile Banking service.

V. CONCLUSION AND RECOMMENDATION

A. Conclusion

1. Mobile Banking Security has significant and positive impact on Quality of Mobile Banking Service. This finding supports the theory from Davis [19], Davis [2]; Davis [20] which stated that security has a significant and positive effect on service quality.
2. Knowledge of Information Technology (IT) in using Mobile Banking has significant and positive effect on Mobile Banking Service quality. This finding supports the theory from Davis [19], Davis [2]; Davis [20] stating that the knowledge of Information Technology (IT) has a significant and positive effect on service quality.
3. Quality of Internet connection for Mobile Banking has significant and positive effect on Mobile Banking Service quality. This result supports the theory from Davis [19], Davis [2] which said that quality of internet connection has a significant and positive effect on service quality.
4. Mobile Banking Service quality has significant and positive impact on user satisfaction. This result supports the theory from Kotler [21], Parasuraman [22], Maholtra [23], Zeithaml [24] stating that the quality of Mobile Banking service has a significant and positive effect on user satisfaction.
5. User satisfaction toward Mobile Banking service has significant and positive impact on user loyalty. This finding supports the theory from Kotler [21], Parasuraman [22], Maholtra [23]; Zeithaml [24] saying that user satisfaction has a significant and positive effect on user loyalty.
6. In addition, there is 1 (one) hypothesis that developed the existing theory. The hypothesis is that adoption of new products (Mobile Banking) has significant and negative impact on Mobile Banking service quality. This finding developed the theory from Davis [19], Davis [2]; Davis [20] which suggested that adoption of new products has a significant and positive impact on Mobile Banking service quality.
7. Mobile Banking Service quality has no significant and positive effect on user loyalty. This result does not support the theory from Kotler [21]; Parasuraman [22]; Maholtra [23]; Zeithaml [24] that service quality has a significant and positive effect on user loyalty. Breakup of the world of concepts with reality and can be a broad school for students to learn many things from the various sources of life they face in the field. Students' understanding gaps or gaps they find in the field are a source of new knowledge for them to understand and try to find solutions to all the problems they find. In addition, they not only try to implement concepts or theories in the classroom, but they also learn to behave and act in a good and accurate manner

B. Recommendation

1. Further research is suggested to develop the concept of Mobile Banking usage based on user's perspective, in order to determine the most dominant variable in Mobile Banking use.
2. Further research can also examine more deeply on the current issue about customer data security from irresponsible acts that may be related to the ethics of Mobile Banking use or Mobile Banking user behaviour.

3. Competition in the banking business should be the basis in providing good service with faster and easier facilities for transaction banking and also the other facilities in order to fulfil the user expectation and build the satisfaction that leads the user to be a loyal customer.

4. Mobile Banking is a service that has value added. Therefore, it needs to be equipped with the proper socialization and learning for the customer to support the ease of use and understanding of Mobile Banking services.

5. Facilities for users should be provided professionally in order to strengthen depositions a leading, reliable and modern Mobile Banking among the competition with other Mobile Banking providers.

6. The rapid development of technology in banking world requires the socialization and learning education for users in utilizing the facility on the daily basis sustainably by exploiting and developing services for electronic transactions such as cash withdrawal transactions, inter-account transfers, credit card bill payments and so forth. Not only through Mobile Banking but also through Joined m-ATM, Phone Banking, Mobile Banking, SMS Banking, Internet Banking, and E-Commerce.

7. Mobile Banking is a service that is highly vulnerable to criminal and irresponsible activities, therefore it is necessary to keep developing a sustainable security system since the hackers always improve their ability in studying the banking security system.

8. Mobile Banking service quality does not necessarily cause users to be loyal to the service, therefore Mobile Banking vendor must regulate the policy related to customer loyalty which is more intensive and interesting considering the high competition in Mobile Banking world where there are plenty of choices for the user.

9. Users have more than one cellular phone number according to their needs, this is likely to cause users to be less loyal to the vendor since the users tend to choose pre-paid service. This can be known from the phone numbers of respondents that are mostly pre-paid so they tend to switch easily to another provider. Therefore, vendors must create strategies to attract post-paid users since post-paid users will be bound to become customers in the long term due to binding registration mechanism

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