

## **An International M-banking Adoption**

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*Received December 07, 2020; Accepted February 20, 2021*

*ISSN: 1735-188X*

*DOI: 10.14704/WEB/V18I1/WEB18078*

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### **Abstract**

This study measures the acceptance of m-banking by customers by testing the Performance Expectancy, Effort Expectancy, Website Quality, Experience/habit, trust and use behavior variables. In terms of Website Quality, in general, the findings of this study show a mean overall value of 3.82, which means that the quality of the website presented by the bank is considered to provide satisfactory services by consumers, especially from the attractive design and availability of search engine facilities so that it is easy to find information M-Banking users need. Based on the experience felt by respondents when using m-banking, the findings of this study indicate a mean overall value of 3.99. It's reflects that experience felt by the users of M-Banking rated very good especially in facilitating transactions that can be done anywhere and anytime and can make transactions quickly, securely and cheaply and served individually. Respondents' opinions about the expected benefits when using m-banking expectancy shows a mean overall value of 3.92. Here it can be illustrated that the expected benefits of M-Banking users are considered very good especially in conducting transactions (safe, fast and cheap) that are felt personal as well as business that is easy and painless to use M-banking. from the side of the trust, the M-Banking trust services presented and rated very good in terms of information, secure, reliable in dealing with the mean of variables 3, 95. In addition, M-Banking users feel that the service is good and is considered to be very good in terms of effort to be done both in terms of convenience, not difficult to understand and easy to operate and the behavior will intend to use m-banking in the future in supporting daily activities and increasing the frequency of witnesses.

### **Keywords**

m-banking, Technology Acceptance, International Comparison.

## **Introduction**

The banking industry in Indonesia is currently undergoing a very significant transformation driven by technological developments. Indonesia Banking Survey (2017) results report that 7 out of 10 local banks (52%) stated that technology is the primary driver for changing banking services. The survey results clarify the findings that 84% of banks in Indonesia currently prefer investments in technology, while changes in consumer needs and operational excellence rank 2 (17%) and 3 (15%). Digital transformation has pushed 81% of banking CEOs in Indonesia to pay close attention to the speed of technological change over other industrial sectors. (PWC-Indonesia Banking Survey, 2017). According to the survey results in 2020 competition in the banking world will be influenced by several things, namely: 1) digital becomes mainstreams, 2) the sharing economy will be embedded in every part of the financial system 3) the public cloud will become the dominant modern infrastructure and 4) Asia will emerge as a key center of technology driven innovation.

Ease of internet access and improving smart phones are a strong driver of the development of mobile banking services. Research results from the Retail e-Channel in 2013 of 68 people showed 65% of using mobile data services via smartphones, the rest (35%) used ordinary cellphones that were only for communication functions. Smartphone users are also growing rapidly which will reach 100 million active users in 2018. According to the 2016 AJPII survey, mobile phones are indeed chosen by the majority of internet users. The development of mobile banking will continue to increase to reach 132.7 million, as much as 86.3 million or 65% are in Java, the rest outside Java Island, such as P. Sumatra 15.7%, Bali and Nusa (4.7%), Kalimantan (5.8%), Sulawesi (6.3%) and Maluku & Papua (2.5%) (APJII / Association of Internet Service Providers, 2017). Mobile banking is a breakthrough innovation in banking services, has attracted experts to conduct research. Most of the m-banking research is conducted to measure interest in using m-banking using the Technology Acceptance Model or commonly referred to as the Technology Acceptance Model (TAM) (Davis, 1989) which is used to predict user acceptance of the use of new technology.

Various problems were encountered at m banking as well as the still low penetration of the market can be said that the development is still at an early stage means yet to be widely accepted by the public. The stages of penetration of m-banking services when viewed from the Diffusion of Innovation Theory (DOI) (Rogers, 2003) are still enjoyed by 2 categories, namely: 1) innovators (2.5%), namely groups of consumers who really like new things because provide a pleasant challenge, 2) early adopter category (13.5%).

According to Mc Kinsey (2018) Australia is a mature economies country in relation to the development of m-banking and is equivalent to other developed countries such as Canada, France, Italy, South Korea, the United Kingdom and the United States. The point of this research is to investigate consumer acceptance usage behavior of m banking referring to different cultural contexts and differences in adoption levels in each country. The study is going to examine where modeling technology acceptance can explain consumer behavior usage behavior on m-banking in Indonesia and Australia are:

1. How website quality influences experience, performance expectancy, trust, and facilitating conditions
2. How does experience, performance expectancy, trust, and facilitating conditions influence the usage behavior
3. How does gender influence the relationship between experience, performance expectancy, facilitating conditions and trust in behavioral intention.

## **Literature Review**

Different experts put forward a variety of theories for measure the behavior of consumers in using a service / product / service. Measurement behavioral aspect that measure up to the extent to which the acceptance of consumers (intention and usage) has been started since Davis (1995) suggests Technology Acceptance Model (TAM which refers to the modeling before, namely Theory Reasoned Action (TRA) and TPB (Theory of Planned Behavior). Theory Reasoned Action (TRA) from Fishbein and Ajzen (1980) explains"... the intention to perform a behavior is the main predictor whether or not they actually perform that behavior..." This means that a person's tendency to behave in a certain way is an important predictor that he will certain behavior Theory of reasoned action (TRA) itself is also often called the Behavioral Intention Theory, TRA shows that each individual considers the consequences of their actions before they commit certain behaviors. The limitations of the TRA are then refined by Ajzen (1985) known as Theory of Planned Behavior (TPB) This theory is related to beliefs and behavior. TPB is a theory that emphasizes the rationality of human behavior as well as the belief that the target behavior is under the control of individual consciousness. In its development Taylor & Todd's (1995) refined TPB to Decomposed TPB which added 6 sub - constructs that included relative advantages, complexity, compatibility, normative influences, efficacy and facilitating conditions. Research related to technology adoption was proposed by King & Dennis (2006), who conducted a meta-analysis of 88 studies published in the 1989-2004 period by testing the validity of the TAM model. The results show that perceived usefulness has a strong influence on behavioral intention. But perceived ease of use does

not directly affect behavioral intention. This finding indicates that related to the use of technology consumers feel there are limitations to becoming accustomed, which means that when a technology or system is developed, it must take into account the aspects of "ease of use" because it will speed up the process of adoption.

### **Research of Method**

The method used in this research is descriptive and verification (Cooper and Schindler 2011: 155). The verification method uses an explanatory research method, which is to explain the nature of the causal relationship through hypothesis testing. To obtain research data, a survey method was used by taking samples from the population of m-banking users. For the purposes of this study, the unit of analysis is the banking sector that offers m-banking services. The survey was conducted by distributing questionnaires to all bank customers using m-banking, by developing the following variables.

<b>No.</b>	<b>Variable</b>	<b>Definition</b>	<b>Dimension</b>
1	Performance Expectancy	A situation where m-banking users trust using m-banking will help expedite services.	Perception of usefulness (perceived usefulness); Job suitability (job-fit); extrinsic motivation, Outcome expectation
2	Effort Expectancy	Is the level of ease of m-banking users that will be able to reduce the effort (energy and time) to access the service.	Perception of ease of use (perceived easy of use), utilization, easy to use (easy of use).
3	Experience / habit	The habits and experience of participants using the m-banking application	Intention to use the system (intention to use the system); experience using application-based services
4	Trust	M-banking users' confidence in the reliability of the services being taught	Benevolence, credibility and competence
5	Use behavior	Constitutes the intensity and or frequency of m-banking users in using the m-banking application.	Frequency of use, willingness to use, real use of e commerce
6	Web-site quality	The extent to which website facilities (internet, on-line) can make consumers make transactions (m-banking) effectively and efficiently.	Information, user-friendly, interaction-adaptation and aesthetics.

For the purposes of this study, data collection was carried out using a questionnaire that had been prepared to be asked of respondents. Validity test uses Pearson Product Moment correlation (Kaplan 2005: 96). The reliability calculation uses Alpha Cronbach (Kaplan, 2005: 113). The number of respondents who are involved in the research have targeted

450 respondents. Of the 450 respondents are, the answer is rated valid and can be processed amounted to 359 people. This study tested the hypothesis on the methods - statistical methods SEM-based LISREL Covarions designed to solve complex multiple regression (Vinzi 2010: 308). Data from 359 respondents that are then processed with the help of software listel to test the hypothesis of the research is.

## **Results and Discussion**

### **Website Quality Review**

In terms of Website Quality, in general the findings of this study show a mean overall value of 3.82, this value indicates a good number. Sequentially based on the Mean value, the M-banking user gives a high rating of the quality of the website presented by the bank in the following cases:: attractive and organized (3.94); Makes it easy to navigate because it has a fast search facility so that it is easily accessed (3.91); Showing complete, clear and accurate content (3,87); Can meet the needs of personalized and customized ( 3,87); and Makes it easier for me to search for needed service information (products, email addresses, telephone numbers etc.) (3,7). The findings of this study indicate that the quality of the website presented by the bank is considered to provide satisfactory services by consumers, especially from the attractive design and availability of search engines so that it makes it easier to find information needed by consumers who use M-Banking.

### **Study of Experience**

In terms of the experience felt when using m-banking (experience) (Table 4.3), in general the findings of this study show a mean overall value of 3.99, this value shows a very good number. Sequentially based on the Mean value, M-banking users give high ratings because they feel an impressive experience of what is presented by the bank in the following matters: Can conduct transactions anywhere and anytime (4.23); Make it easy to meet the need to conduct banking transactions quickly, safely and cheaply (4,16); Improve the skill and knowledge of navigating to find the features needed (3.99); My needs can be served personalized and customized (3,96); Can find important information content to support the fulfillment of transaction needs (3.87) and can compare types of products / services offered by banks (3.73).

The findings of this study indicate that the experience felt by M-Banking users is considered very good especially in facilitating transactions that can be done anywhere and anytime and can make transactions quickly, safely and cheaply and individually served.

### **Review of Performance Expectancy**

In terms of the expected benefits when using m-banking (performance expectancy), in general the findings of this study show a mean overall value of 3.92, this value shows a very good number. Sequentially based on the Mean value, M-banking users give high ratings because they feel the benefits in the following matters: Can use banking services quickly, safely and cheaply (4.01); My needs can be served personalized and customized (3.99); Getting the quality of banking services that I need in a minimalist way (3.94); Improve navigation skills and knowledge in search of the required features (3.85); and Can compare services offered between banks (3.78).

The findings of this study indicate that the benefits expected by M-Banking users are considered to be very good, especially in conducting transactions (safe, fast and cheap) that are felt personally and effort that is easy and hassle-free to use M-banking.

### **The Study of Trust**

In terms of trust when using m-banking (Table 4.5), in general the findings of this study show a mean overall value of **3.95**, this value shows a very good number. Sequentially based on the Mean value, the M-banking user gives a high assessment of the aspects of trust in the following matters: information provided by the bank can be trusted (3.98); no doubt conducting transactions because the quality services provided by the bank can be trusted (3.97), because it is supported by a reliable system; safe transactions (3.96) and supported by a reliable system (3.86).

The findings of this study indicate that M-Banking users trust the services provided and are considered to be very good in terms of information, safe, reliable so they do not feel any doubts in making transactions.

### **Study on Effort Expectancy**

In terms of the effort made to obtain m-banking services (Table 4.6), in general the findings of this study indicate a mean overall value of **4.06**, this value indicates a very good number. Sequentially based on the Mean value, M-banking users give a high rating of effort expectancy in the following cases: easy to use (4.14); easy to understand (4.11), easy to operate (4.09) and improve skills using application-based banking services (3.92)

The findings of this study indicate that M-Banking users feel that the service is good and is considered to be very good in terms of effort that must be done (effort expectancy) both in terms of convenience, not difficult to understand and easy to operate.

### **Study of Usage Behavior**

In terms of behavior related to the intention to use m-banking (Table 4.7), in general the findings of this study indicate the mean overall value of **3, 87**, this value shows a very good number. In a sequence based on the Mean: Planning will use m-banking services in the future (3.96); Will use m-banking services next year (3.89); Intend to continue using m-banking services and increase frequency (3.88); Intend to divert the use of conventional banking services in the shortest possible time.

The findings of this study indicate that the users of M-Banking behavior will intend to use m-banking in the future to support daily activities and increase the frequency of transactions. An interesting finding is that because the services provided are highly valued, most respondents will shift conventional banking transactions to application-based services.

### **Measurement Model Analysis**

From the results of a descriptive analysis of adoption of m-banking users, it can already be categorized at the stages of high adoption levels (early and late adoption). This means that the intention to use m-banking (high usage behavior) in the future is inseparable from the minimalist business aspects (effort expectancy) with a value of 4.06), followed by perceived experience (3.99), and trust (3.95) and website quality aspects (3.86). Assessment respondents in each indicator (31 indicators distributed to the four categories, namely less, Enough, Good, and Very Good. The sample of respondents who answered Less (K) on some indicators about less than 10 people, is too small to be analyzed further, so that combined with Fair category (C).

The measurement model is built from 31 measurement variables for six latent (construct) variables. All indicator variables significantly measure technology adoption factors (experience, performance expectancy, trust, effort expectancy), and consumer behavior (usage behavior) of m-banking. Each factor has a reliability of 0.7 or on top of it. All indicator variables significantly measure technology adoption factors (experience, performance expectancy, trust, effort expectancy), and consumer behavior (usage behavior) of m-banking. Each factor has a reliability of 0.7 or on top of it. Model structurally are produced is as follows.

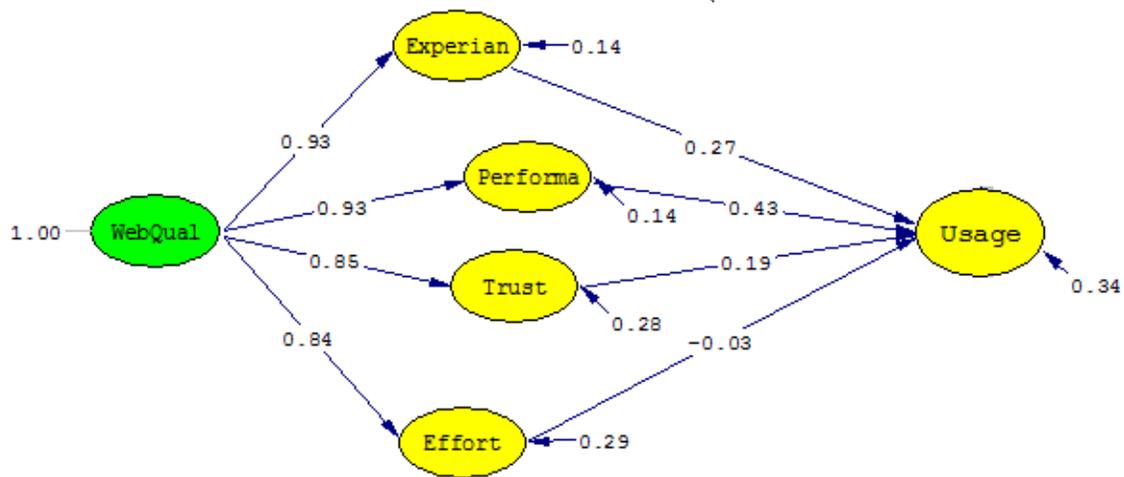


Figure 1 M-Banking Adoption Structural Estimation Model

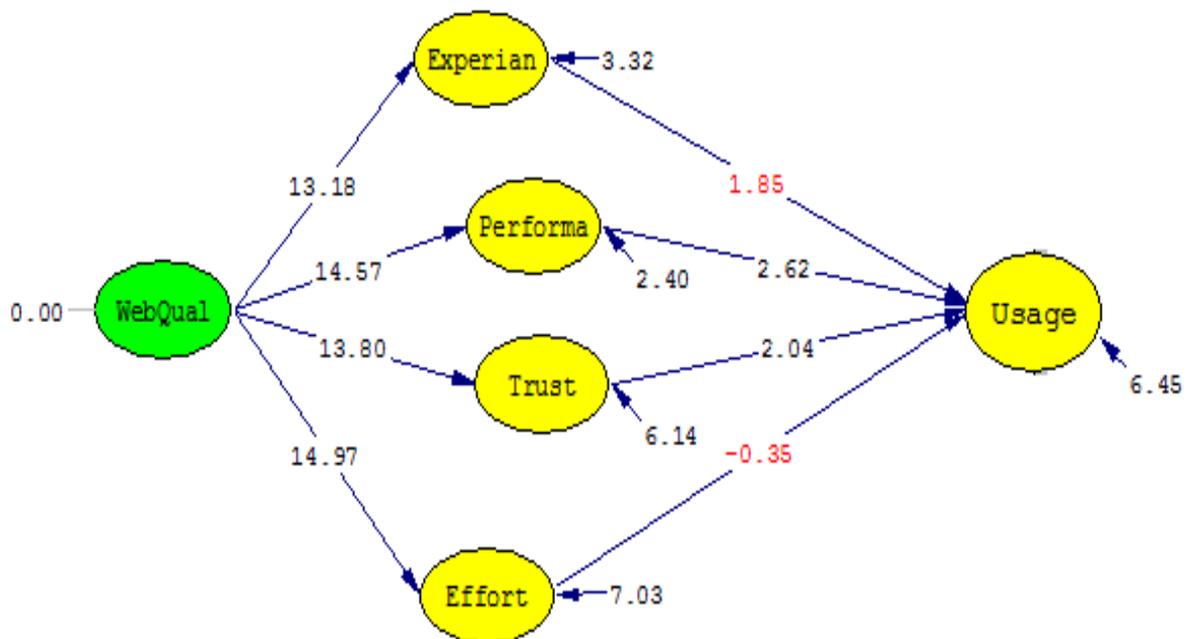


Figure 2 M-Banking Adoption Structural Model

The influence of technology adoption (experience, performance expectancy, trust, effort expectancy) to the behavior of consumers (usage behavior), are determined by factors of performance expectancy (0.43; t. 2.62), factor trusts (0.19; t. 2.04), factor experience (-0.10; t. 1.85), and effort expectancy (-0.03; t. -0.35). With such, the role of technology

adoption on the behavior of consumers is determined by factors of performance expectancy and factors trusts.

### **Effects of Age and Gender**

Condition age and gender did not affect the structure of the relationship between the factors of technology adoption with usage behavior of service m-banking. Age and gender also not condition of each factor are directly or not directly. With such, the conditions and the role of the factors of technology adoption on the usage behavior of service m-banking is not explained by the variables age and gender.

### **Conclusion**

The influence of technology adoption (experience, performance expectancy, trust, effort expectancy) on consumer behavior (usage experience), is determined by performance expectancy factors (0.43; t. 2.62), trust factors (0.19; t. 2, 04), experience factor (-0.10; t. 1.85), and effort expectancy (-0.03; t. -0.35). With such, the role of technology adoption on the behavior of consumers is determined by factors of performance expectancy and factors trusts. In a study of this, Age and gender did not affect the structure of the relationship between the factors of technology adoption with usage behavior of service m-banking. Age and gender also condition of each factor are directly or not directly. With such, the conditions and the role of the factors of technology adoption on the usage behavior of service m-banking is not explained by the variables age and gender.

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