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## The Effect of Perceived Trust of Mobile Banking Services in Malaysia

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### Article Information

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### Abstract

Mobile banking is defined as the usage of cellular phone or other mobile gadgets to conduct the tasks of online banking using a home computer, such as reviewing the balance in the account, transfer of money between accounts, find automated teller machine (ATM) and bill payments. The low penetration of mobile banking in Malaysia, especially in terms of adoption patterns is becoming the research interest, especially when compared to the total number of cellular telephone subscriptions. The penetration rate of mobile banking in Malaysia is still in the minority. The issue of trust beliefs that may affect the user's intention to adopt the mobile banking services. Trust is a major aspect of everyday life. Some authors define trust as wish to depend on another entity and separating the concept of trust to some interconnected components trust such as trust beliefs (e.g., benevolence, efficiency, honesty, and predictability) believe the intention, trusting behaviors, disposition to trust, and the institution-based trust

### INTRODUCTION

Mobile banking is refers to the usage of any mobile devices to performed bank transaction and any services, for example, to view the account statement, checking on account balance, fund transfer and bill payment through mobile equipment such as smart phones, mobile phones, and any other gadgets (Laukkanen, 2007). Moreover, mobile banking is also refers to the provisions and specific financial services and banking through the assist of mobile telecommunications tools. The capacity of services award including stock market and facilities to deal with banks, manage your account and to get specific information (Okiro & Ndungu, 2013). Furthermore, mobile banking is the biggest innovation, or clusters of innovation in retail banking during the year, arguably in a century. In developing economies that lack a dense infrastructure of branches, fixed line telecommunications and ATM, mobile banking will produce millions of people into the formal banking system for the first time user. In advanced developed economies, the impact is lower but still profoundly as mobile banking will be the primary and main way of many, perhaps most, customers interact with their banks (Ensor & Wannemacher, 2012). In addition, Barati & Mohammadi, (2009a) in their findings stated that, in an increasingly competitive market, mobile banking can be identified as an effort to give added value by offering much more convenience to its client. Previous studies shows that the factors that contribute to the use of mobile banking are related to convenience, access to the service regardless of time and place, savings in time and effort and also privacy (Suoranta, 2003).

Table 1 Mobile Banking Conceptual Model

Account Transaction	Transaction	Investment	Support
Checking of account history and view of account statements	Transfer of funds between the customer's linked accounts	Portfolio management services	Status of requests for credit, including mortgage approval, and insurance coverage
Alert on account activity or approval threshold set out	Third party funds transfer and payment of bill for third party	Real-time stock quotes	cheque book and card requests
Monitoring of term deposits	Check remote deposit	Personalized alerts and notifications on security prices	Data exchange messages and e-mail, including submission of a complaint and tracking
Access to loan statements			Location of ATM
Access to card statements			
Equity and mutual fund statements			
Insurance policy management			

The mobile banking is benefit from the positive growth of the mobile terminal technology (Li, 2013). Furthermore, in the banking sector at present, mobile banking is a tool for banks to maintain their existing and familiar basic technology, customers by offering value-added and innovative. As soon as the customer satisfied with the application, it will only be the word of mouth attracted new customers from related sections in society (Tiwari, Buse, & Herstatt, 2006).

A mobile devices such as mobile phone and gadgets most of the time will be switched on most of the time and usually will be not unattended as the people will carry everywhere they go (Smutkupt, Krairit, & Esichaikul, 2010). Mobile banking is the new innovations to the banks when customers will switch from traditional counter service to a new mobile store and customers will be hustle free to do their digital transactions immediately while the banks can used mobile banking which has the effect of significantly reducing the cost and facilitate changed in retail banking (Laukkanen, 2007) . The bank can earned benefit and advantage in term of maintaining an existing of their branches (Shih & Fang, 2004).

**MOBILE BANKING IN MALAYSIA**

The banking sector in Malaysia are vital due to the substantial banking sector that supports the growth of economic is more to the excellent service. The changes is needed by the banks (at the both procedure and information), in example, transfer the conventional operation channels to computerized operation channels (Daud et al., 2011). There are thirteen banks in Malaysia, currently having the mobile banking services (Financial Stability and Payment System Report, 2013). A review on Malaysian budget 2014, has highlighted on the internet access budget. It was mentioned on the issue to implement the second phrase of broadband high-speed project with the involving of private sector investment of RM1.8 billion. It will involve the local telecommunication company, namely Telekom Malaysia Berhad to manage the project. Another issue is to wider the coverage of internet in rural arrears, in the next three years, 1,000 telecommunication transmission towers planned to build, with RM1.5 billion investments. The internet line budget in Sarawak and Sabah also will be increased with a total budget of RM850 million for a new underwater cable and will be located within three years. Table 1.5 revealed the statistic report provided by Bank Negara Malaysia 2013, revealed on the total usage of mobile banking as compared to internet banking. Table 1.2 shows the report that revealed of the penetration rate for mobile banking in Malaysia is still low at 20.4% against total population and the internet banking penetration rate recorded 60% in 2014.

Table 1.2  
Internet Banking and Mobile Banking Subscribers (end of period)

Internet Banking					Mobile Banking			
million	Number of Subscribers			Penetration to population (%)	'000	Number of subscribers	Penetration rate (%)	
	Total	Individual	Corporate				To population	To mobile subscribers
2005	2.6	2.5	0.1	9.8	2005	127.6	0.5	0.7
2006	3.2	3.2	0.0	12.0	2006	246.7	0.9	1.3
2007	4.6	4.5	0.1	16.9	2007	367.6	1.4	1.6
2008	6.2	6.1	0.1	22.5	2008	574.6	2.1	2.1
2009	8.1	8.0	0.2	28.9	2009	675.0	2.4	2.2
2010	9.8	9.6	0.2	34.4	2010	898.5	3.1	2.6
2011	11.9	11.6	0.2	40.9	2011	1,560.3	5.3	4.3
2012	13.7	13.4	0.2	46.4	2012	2,446.2	8.2	5.9
2013	15.5	15.2	0.3	51.9	2013	4,378.8	14.6	10.2
2014	17.6	17.3	0.3	58.2	2014	5,639.2	18.6	12.9
Mar-15	18.2	17.8	0.3	60.0	Mar-15	6,158.6	20.4	14.1
Mar-08	5.0	4.9	0.1	18.0	Mar-08	397.5	1.4	1.6
Jun-08	5.4	5.3	0.1	19.4	Jun-08	423.5	1.5	1.7
Sep-08	5.8	5.7	0.1	21.1	Sep-08	536.2	1.9	2.0
Dec-08	6.2	6.1	0.1	22.5	Dec-08	574.6	2.1	2.1
Mar-09	6.7	6.5	0.1	23.8	Mar-09	627.4	2.2	2.2
Jun-09	7.2	7.0	0.1	25.6	Jun-09	566.1	2.0	2.0
Sep-09	7.5	7.3	0.2	26.7	Sep-09	621.4	2.2	2.1
Dec-09	8.1	8.0	0.2	28.9	Dec-09	675.0	2.4	2.2
Mar-10	8.3	8.1	0.2	29.0	Mar-10	751.2	2.6	2.4
Jun-10	8.9	8.7	0.2	31.1	Jun-10	823.5	2.9	2.6
Sep-10	9.4	9.2	0.2	33.0	Sep-10	834.6	2.9	2.6
Dec-10	9.8	9.6	0.2	34.4	Dec-10	898.5	3.1	2.6
Mar-11	10.2	10.0	0.2	35.2	Mar-11	998.2	3.4	2.9
Jun-11	10.9	10.7	0.2	37.5	Jun-11	1,131.0	3.9	3.2
Sep-11	11.3	11.1	0.2	38.9	Sep-11	1,261.5	4.3	3.5
Dec-11	11.9	11.6	0.2	40.9	Dec-11	1,560.3	5.3	4.3
Mar-12	12.4	12.2	0.2	42.1	Mar-12	1,731.2	5.8	4.7
Jun-12	12.6	12.3	0.2	42.6	Jun-12	1,889.1	6.4	4.8
Sep-12	13.1	12.8	0.3	44.5	Sep-12	2,129.8	7.2	5.3
Dec-12	13.7	13.4	0.2	46.4	Dec-12	2,446.2	8.2	5.9
Mar-13	14.0	13.8	0.3	46.9	Mar-13	3,148.6	10.5	7.4
Jun-13	14.6	14.3	0.3	48.9	Jun-13	3,609.9	12.0	8.5
Sep-13	15.1	14.8	0.3	50.6	Sep-13	3,997.9	13.3	9.2
Dec-13	15.5	15.2	0.3	51.9	Dec-13	4,378.8	14.6	10.2
Mar-14	15.9	15.6	0.3	52.6	Mar-14	4,706.4	15.6	10.9
Jun-14	16.6	16.2	0.3	54.7	Jun-14	5,091.3	16.8	11.6
Sep-14	17.2	16.8	0.3	56.7	Sep-14	5,530.4	18.3	12.6
Dec-14	17.6	17.3	0.3	58.2	Dec-14	5,639.2	18.6	12.9
Mar-15	18.2	17.8	0.3	60.0	Mar-15	6,158.6	20.4	14.1

Changes in the business landscape in Malaysia are influenced by two developments, liberalization of trade (development) and the speedy development of technology. This is significantly real in the banking sector (Ramayah et al., 2003). Furthermore, the tendency that we see now is a better technology usage, especially in the technology of the internet, as a way not only to improve the reduction of cost, but it is more to provide a good service to the customer.

## PROBLEM STATEMENT

The statistic report of mobile phone is enormous. The penetration rate was at low level if compared to the mobile cellular phone usage. The number of cellular phone recorded 146.2% in the year of 2013.

Table 1.3  
Number of Cellular Telephone Subscription and Penetration Rate in Malaysia

Year	Qtr	Postpaid ('000)	Prepaid ('000)	Total ('000)	Penetration rate per 100 inhabitants
2012		7,375	33,950	41,325	142.5
2013	1	7,471	34,974	42,445	143.3
	2	7,534	35,070	42,604	143.4
	3	7,595	36,006	43,601	146.2
	4	7,645	35,311	42,956	143.6

Table 1.3 reported the cellular telephone subscription and penetration rate in quarter three in 2013, recorded 146.2%, more than 100% against the total population. The report exposed, the more effort need to be practiced to improve the number of users and penetration rate of mobile banking.

This can be concluded that the usage of mobile banking services is still at the minimum level. Therefore, the truly existing consumption is not fair with the large numbers of the population and the number of cell phone user. The internet banking users in Malaysia however, show a great penetration rate of 52.2% against the total population. The government is expected to increase the number of internet user to 25 million in 2015, compared to 18 million in 2013 (Economic Report, 2013). Bank Negara Malaysia had also highlighted on the extra effort is needed to guaranteed the improvement of the mobile banking usage (Financial Stability and Payment System Report, 2013). Even if mobile banking is infancy in Malaysia, correlated with electronic banking, it is very substantial for the service provider to check the factors influencing consumer intention to receive and adopt measures essential to highlight the matter and therefore will attract many bank clients to adopt this system. The reality of the issue of mobile banking is due to the beginning and quite new to the people of Malaysia. Therefore, there is the possibility that mobile banking is still unknown to and unused by the bank customer.

The inevitability of mobile banking is facing such dispute as belief in a new technology wireless users and their understanding of the risks associated with appear on the simple open wave wireless. "We thus argue that the perception of trust and the risk by users is likely to affect and influence of their acceptance of mobile banking services" (Luo, Li, Zhang, & Shim, 2010). Trust relating to risks and observed by Mayer, Davis, & Schoorman, (1995b), which "the need for trust only arise in risk situation". Morrison & Firmstone, (2000) "suppose the risk and trust are the components which cannot be separated in decision making". Trust considered as an efficient approach to address concerns related to the perceived of uncertainty and risk Gefen (2000), have beneficial consequence customer intention to purchase (Jarvenpaa, Tractinsky, & Vitale, 1999).

## LITERATURE REVIEW

Mayer, Davis, & Schoorman (1995a) defined trust as "the willingness to be vulnerable to the actions of any other person based on the expectation that others will perform certain actions which are important for trustor, irrespective of the ability to monitor or control the other party". Trust in mobile banking means, the users will adopt to use mobile terminals to performed bank transaction such as online payment and any other purposes (e.g. balance inquiries, bill payments and transference) at any time and from anywhere (Dahlberg, Mallat, Ondrus, & Zmijewska, 2008). Mobile banking frees the user from the limitations of space and time, and allows them to carry out any payment. Thus, will convenient to the user. However, due to the virtuality and lack of control, mobile banking involves substantial uncertainties and risks. Therefore, users need to build trust in order to use mobile banking. Initial trust develops when users start to log-in to the mobile banking system for the first time (McKnight, Choudhury, & Kacmar, 2002). The user needs to build the initial trust to overcome the perceived risk, or alternatively, they will switch back to online banking if they cannot build initial trust in mobile banking. Therefore, the mobile service provider need to developed the trust concept with their customer to acquire and retain them (Zhou, 2011). In the internet banking studies, trust have shown as an important construct in acceptance of the services. Suh & Han (2003) had found the significant impact of trust and the acceptance of internet banking.

Customer trust is known as a crucial factor for the benefit of mobile banking. With the explosion of mobile commerce (m-commerce) and electronic commerce (e-commerce), more studies have been administered on the concept of the structure, the establishment of a mechanism of trust and the effects of trust (Kim, Shin, & Lee, 2009). Current research shows that perceived trust or credibility of users, in connection to the internet systems, have a significant consequence on their willingness to engage in banking, online shopping and the currency exchange and sensitive private information (Friedman, Kahn, & Howe, 2000). Muñoz-Leiva, Luque-Martínez, & Sánchez-Fernández (2010) in their study to analyze trust in the a bank and its constancy using a range of "institution-based" trust mechanisms, such as reputation, security of web quality and transaction had found that the mere presence of seals is not it self important clarification on beliefs about the trust and reliability of the website with online banking services.

## DISPOSITION TO TRUST

Disposition to trust refers to a general tendency to trust others (Khalil, M. N., & Pearson, 2008). Disposition to trust is the basic weakness of an individual to trust or distrust others. The individual's disposition to trust does not change for particular entities but is a constant characteristic of their personality that control how they view

the trustworthiness of every other person that they encounter (Saadi, Hasan, Pierson, & Brunie, 2007). Another study by Schoorman, Mayer, & Davis (2007). Schoorman et al. (2007), disposition to trust is defined as a general tendency to trust others. It is based on the personality that clarify why some of us have tendency to trust or not to trust others. Schoorman et al. (2007), determine the disposition to trust as they broaden to which a person exhibits a propensity to rely on others across a broad spectrum of situations and people. If a person has high disposition to trust, he is more probably believe in human kindness and more willing to accommodate the trust credit for a nearly mutual effort. People with high disposition to trust will be more gullible or naïve (Gefen, 2000).

Trust is a major aspect of everyday life. Some authors define trust as wish to depend on another entity and separating the concept of trust to some interconnected components trust such as trust beliefs (e.g., benevolence, efficiency, honesty, and predictability) believe the intention, trusting behaviors, disposition to trust, and the institution-based trust (Vidotto, Massidda, Noventa, & Vicentini, 2012).

### **STURCTURAL ASSURANCE**

The structure of guarantee means any circumstantial conditions (i.e. contracts, promises, regulations and warranty) are an ideal area for success. This is due to the online environment that offers an extra risk and uncertainties compared to the offline environment, users have to respond well on the structural assurance (Wu, Hu, & Wu, 2010). Zucker (1986) suggest that, institutional trust is the greater important to establish trust mode in the impersonal economic environment where a sense of community with current values is lacking. McKnight et al. (2002) had mentioned that, institution-based trust as a detracting part of online transactions. In particular, they analyze two types of institution-based trust they argued in relation to the initial situation, namely (1) structural assurance that they defined as the belief that success is possible as there are promises, contracts, regulations or guarantees in place (2) situational normality, they defined as the belief that success is possible because the situation is normal. Pavlou (2002) had review the role of various structures in building benevolence and credibility in the seller within business to business. They use this argument in the context of the B2B online and expect that the positive influence an organization's trusting beliefs.

### **INTERPERSONAL TRUST (Perceived Competency, Perceived Benevolence and Perceived Integrity)**

Interpersonal trust or trusting beliefs attribute to the trustor's perception that the trustee has characteristics that are advantageous to the trustor (Mcknight & Chervany, 2001; McKnight et al., 2002). Knowledge-based trust is a trust belief, and is often defined as the individual belief in the trust worthiness of others as determined by their perceived benevolence, competence and integrity (Mayer et al., 1995a; McKnight et al., 2002). Knowledge-based trust was found to be a necessary element to form consumer behaviour online (Gefen, 2002). Some researchers are of the opinion that trust has two interrelated components (Mayer et al., 1995b; McKnight et al., 2002). Trusting beliefs (TB) and trusting intention (TI). Trusting beliefs is the perceptions of efficiency, the trustee's ability to do what the trustor requirements, courtesy, motivation of the trustees to act in the interests of the trustor, and the honesty of the seller (Mcknight & Chervany, 2001). Trust intentions (TI) shows the willingness of someone to rely on e-vendor. They further explained that it was found that someone will trust others, but remains unwilling depending on their actions.

Perceived competence means that the user believes the bank is fully capable of providing online services financial effectively and conveniently (Khalil, M. N., & Pearson, 2008). Pennington, Wilcox, & Grover (2003) suggests that customers evaluate technical competence of a website in terms of their understanding of the basic processes governing online transactions. If customers believe mobile banking firms offer the skills, ability and expertise to provide convenient transaction services, then they will be more likely to decide of mobile banking favorably.

Benevolence (trustee of the caring and motivated to act in the interests of the trustor) and integrity (honesty trustees and keep the promise). In the context of mobile banking, ability to belief refers to individual impression that mobile banking firms have the ability, expertise and skills to understand their needs in relation to handle personal finances, benevolence belief defined as the individual perceptions that mobile banking firms concern about them and acts in the customer interest, and integrity belief defined as the individual perceptions that mobile banking firms follows a set of principles (e.g., honesty and keeping promises) in most cases, accepted by adopters (Mayer et al., 1995b; McKnight et al., 2002). Benevolence is important to trust because it shows the extent that individual is believed to interpersonal care and concern for others, and are willing to strive to do good for reasons other than ego and profits (Robert, Denis, & Hung, 2009) . Bhattacharjee (2002) resist that

benevolence of trustee will assist trustor, although not required or rewarded for doing so. If the customer believes that the mobile banking firms are benevolence, they are more acceptable to use mobile banking. Perceived integrity indicates adherence to a set of principles that can be accepted. Integrity is important because it is still in the trustors confidence in trustees behavior, and reduces uncertainties and potential risks (Bhattacharjee, 2002). In the context of mobile banking, regulations governing the integrity of providing accurate and timely manner, maintaining the commitment of our customers and maintain the confidentiality of personal information. Mobile banking firms have high integrity. The mobile banking firms were considered to have high integrity when the customer believes mobile banking firms exhibit strong justice, objectivity and honesty. Thus, customers with high integrity, belief in mobile banking firms are more expected to have a positive attitude toward adopting (or continuing to use) mobile banking.

## CONCLUSION

In this study, perceived trust found to have a significant positive effects on the intention to use of mobile banking. To increase the trust of the public, the banks should adopt the uncertainty and risk mitigation strategies. Strategies include using firewall and encryption technology certified, adopting privacy policies and security, build the structure guarantees the image on a website and others. On the integrity part, banks must also ensure that they maintain and fulfill their promises and act ethically and dealing honestly with the customers. The paper aims to investigate the factors that affect the adoption of mobile banking in Malaysia. This study will provide an explanation and understanding of the customer acceptance in the mobile banking study in a several ways. In terms of theoretical contribution, this study will improve the existing literature as the findings and the proposed framework will serve as a practical guideline for researchers to enhance their future research. In addition, this study will contribute to create knowledge in the literature to the ability to predict the intention of adoption and behavior within the framework of various sampling. From the practical perspective, the results of this study will also be directed to the practitioner in recognizing the various drivers and the challenges likely to the acceptance of mobile banking services. Implications for management, accuracy in determining the acceptance and consumers' interests are very important. The result of this research, which expected to contribute to a better outcome and strategy to increase the penetration rate of mobile banking users in Malaysia.

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