

The Effect of Institution Based Trust on Mobile Banking Utilization

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Abstract

The paper reports the findings of a study investigating the effect of institution based trust on mobile banking utilization. Using the survey research methodology involving 312 respondent who were mobile banking users, it was found that both components of institution-based trust which are structural normality and structural assurance have positive effect on mobile banking utilization. The findings suggest the importance of maintaining conducive mobile banking environment so as to ensure continuous and increased utilization among users.

Keywords: institution based trust, structural normality, structural assurance, mobile banking

1. Introduction

Today, the majority of the banks, either operating in the developed or developing countries, is offering mobile banking service. In line with this development, researchers have also shown great interest investigating the adoption and utilization of mobile banking among consumers. These studies have found various factors that are associated to mobile banking adoption or utilizations. However, one commonality found in these various studies is the low level of mobile banking adoption or utilization among users. The literature indicates that one of the main reason of low acceptance of the mobile

banking is the low level of trust. Drawing upon this gap, this study attempts to investigate the influence of institution-based trust on mobile banking utilizations. Focusing on mobile banking customers in Malaysia, the study is expected to offer some information on trust development strategies for companies involved in mobile banking

2. Literature Review

2.1 Mobile Banking Utilization

The Federal Reserve of US defines mobile banking as using a mobile phone to access bank account, credit card account, or other financial account [2]. The mobile banking is similar to Internet banking in that it provides a fast and convenient way of performing common banking transactions [1]. In order to enjoy the benefits of mobile banking, a user needs a mobile phone that is equipped with the features required by the bank that provides this service [1]. Once a user obtained a registered account for mobile banking from the banking institution, he or she would be able to do banking transactions from anywhere. The mobile banking can be done either by accessing the bank's web page through the web browser on the mobile phone, via text messaging, or by using an application downloaded to the mobile phone [2]. Recent study released by The Federal Reserve of US unveiled that 11% of those not currently using mobile banking think that they will probably use

it within the next 12 months and the most common use of mobile banking is to check account balances or recent transactions (90% of mobile banking users). In addition, the study also found that transferring money between accounts is the second most common use of mobile banking (42% of mobile banking users).

2.2 Institution Based Trust

Institution-based trust refer to the trustor’s belief that favorable conditions are in place that are conducive to situational success in an endeavor or aspect of the trustor’s life [4]. It also relates to one’s sense of security from guarantees, or other impersonal structures inherent in a specific context. There are two types of institution-based trust namely, situational normality and structural assurance. Situational normality is an assessment that the transaction will be a success, based on how normal or customary the situation appears to be [4]. Structural assurances refer to an assessment of success due to safety nets such as legal recourse, guarantees, and regulations that exist in a specific context. Figure 1 shows the research framework used in this study. The researchers argue that both of the institution-trust dimension should have significant influence on mobile banking utilizations. Based on this premise, the following hypotheses are formulated:

H1: Structural Normality is significantly related to mobile banking utilization

H2: Structural Assurance is significantly related to mobile banking utilization.

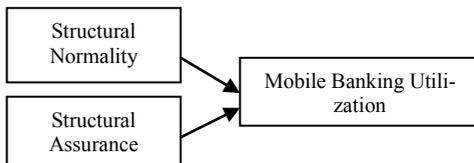


Fig. 1. Research framework

3. Research Methods

The study employed the survey research methodology. The population of the study was the mobile banking users living in the Klang valley area located in the State of Selangor and Federal Territory Kuala Lumpur Malaysia. Simple random sampling was used for selecting the sample of the study. A personally administered questionnaire was used to collect the data. The collected data were analyzed using statistical computer programs known as IBM SPSS version 20 and Analysis of Moment Structures (AMOS) version 20.

4. Findings

4.1 Profiles of Respondents

A total of 312 respondents involved in this study and out of this number, 101 or 32.4% are males while the remaining are female. In terms of age group, the majority belong to age group between 21 and 25 (44.6%) while the minority (1.9%) reported to be aged between 6 and 20. With regard to their mobile banking experience, the majority indicated they have been using mobile banking for the about one year (31.4%). The rest have indicated to have been using the mobile banking services for about three years (19.3%) and less than one year (16.3%).

4.2 Reliability and Validity of Measurement Items

Following [5] this study used factor loadings, composite reliability (CR) and average variance extracted (AVE) to measure the convergent validity. The literature suggests that the desirable factor loading should not below 0.5 and as depicted in Table 2, all the factor loadings fulfilled this requirement. In terms of composite reliability, all the scores also surpassed the cut off value of 0.7 as suggested by

[6]. The average variance extracted (AVE) also surpassed the suggested value of 0.5.

Table 1: Convergent Validity

Construct	Items	SL	CR	AVE
Mobile Banking Utilization	MBU1	0.760	0.789	0.555
	MBU2	0.740		
	MBU3	0.734		
Structural Normality	MSN1	0.769	0.782	0.544
	MSN2	0.705		
	MSN3	0.738		
Structural Assurance	MSA1	0.790	0.849	0.651
	MSA2	0.815		
	MSA3	0.816		

Besides examining the convergent validity, the study also examined the discriminant validity. Fornell & Larcker [3] explained that AVE can also be used to measure discriminant validity. Hence, to examine the discriminant validity of the construct, the square root of AVE of the construct should be greater than the correlation between the constructs and all other constructs. As presented in Table 3, the AVE values are well above the correlation values, hence implying that the instrument used in the study fulfills the discriminant validity requirement.

Table 2: Discriminant Validity

	Mean	Standard Dev.	MBU	MBN	MSA
Utilization (MBU)	3.53	0.75	0.789		
Normality (MSN)	3.44	0.51	0.429**	0.544	
Assurance (MSA)	3.51	0.62	0.476**	0.515**	0.651

Hair et al. [6] described that the goodness-of-fit of the SEM is indicated by how well it reproduces the observed covariance matrix among the indicator items. Hence, the goodness of fit can be divided into following four categories: (i) Chi-square measures including chi-square, degree of freedom (df) and probability, (ii) measures of absolute fit which include

the Goodness-of-Fit Index (GFI), Root Mean Square Error of Approximation (RMSEA) and Root Mean Square Residual (RMR) (iii) incremental fit measures which include the Normed Fit Index (NFI) and the Comparative Fit Index (CFI) and (iv) parsimony fit measures which include the adjusted Goodness-of-Fit index (AGFI), and the Parsimony Normed Fit Index (PNFI). As shown in Table 3, almost all fit criteria are fulfilled by the SEM model.

Table 3: Discriminant Validity

	Fit Criteria	SEM Value
Chi Square (χ^2)		51.31
Degrees of freedom		33
P-value (probability)	≥ 0.5	0.001
<i>Absolute fit measures</i>		
CMIN (χ^2)/DF	3	2.138
GFI (Goodness of Fit Index)	≥ 0.9	0.965
RMSEA (Root Mean Square Error of Approximation)	≤ 0.05	0.047
RMR (Root Mean Square Residual)	≤ 0.05	0.017
<i>Incremental fit measures</i>		
NFI (Normed Fit Index)	≥ 0.9	0.957
CFI (Comparative Fit Index)	≥ 0.9	0.976
<i>Parsimony Fit Measures</i>		
AGFI (Adjusted Goodness of Fit Index)	≥ 0.8	0.934
PNFI (Parsimonious Normed Fit Index)	≥ 0.5	0.638

4.4 Testing The Hypothesized Structural Model

As all the fit indices of the structural model meet the recommended criteria, the study proceeds by examining the path coefficients of the structural model which is shown in Table 4. As for H1, the hypothesis is supported, justified by the p-value which is less than 0.05. The R^2 value is 0.387 which suggest that 38.7% variance in utilization is explained by structural normality. With regard to H2, the

hypothesis is also supported as the recorded p value is also less than 0.05. The recorded squared multiple correlation is 0.466 implying that 46.6% variance in utilization is explained by structural assurance.

Table 5: Discriminant Validity

Hypothesis	P value	Hypothesis Testing
H1	p < 0.05	Supported
H2	p < 0.05	Supported

5. Discussion and Conclusion

This paper presents a study on the influence of the institution-based trust on banking utilization in a mobile context.. An analysis of 312 returned questionnaires of mobile banking users proved a significant relationship between structural normality and structural assurance and mobile banking utilizations, indicating that a higher overall perception of these dimensions resulted in a higher utilizations. The findings of this study should capture the interest of both for academics and mobile banking practitioners. For scholars, the research helps to further understand the contribution of institution based trust on extending mobile banking usage. In addition, it provides research opportunities to researchers to further validate the model developed in the study and apply it in other setting related to mobile services. As for the mobile banking practitioners, the results should alert them to be responsive to the demands of institution-based trust from the customers' point of view. This suggests that mobile banking providers should constantly attempt to provide conducive mobile banking services to the customers.

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