

Factors Influencing the Usage of Mobile Banking: Incident from a Developing Country

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The study has been conducted to investigate the factors that influence the users of banking services to use mobile banking in Bangladesh. A self-administrated questionnaire had been developed and distributed among the clients of two full fledged mobile banking service providers of Bangladesh called Brac Bank Limited and Dutch Bangla Bank Limited. Out of the 100 questionnaires, only 64 useable questionnaires were returned, yielding a response rate of 64 percent. Results were subsequently analyzed by using multiple regressions. The influencing factors are analyzed under the four major factors Perceived Risk, Trust, Convenience, Relative Advantage under which several other factors have been explored. Factors such as performance risk, security/privacy risk, time risk, social risk and financial risk are found to be negatively related with the usages of Mobile Banking as perceived risk make the users confused about their security in using mobile banking while factors like ability, integrity, benevolence, perceived usefulness, perceived ease of use relative cost and time advantages are positively related with the intention to use mobile banking services. However, social security is the only factor found insignificant.

Keywords: Mobile Banking, Perceived Risk, Trust, Convenience, Relative Advantage.

1. Introduction

Mobile phones have become a tool for everyday use, which creates an opportunity for the evolution of banking services to reach the previously unbanked population through mobile banking. The use of mobile banking can make basic financial services more accessible to low-income people, minimizing time and distance to the nearest retail bank branches (CGAP 2006). The outstanding growth of mobile sector worldwide has created a unique opportunity to provide social and financial services over the mobile network. With over 4 billion mobile cellular subscriptions worldwide, mobile network has the ability to immediately offer mobile banking to 61% of the world population (Sultana 2009). But still the usage of mobile banking is a debatable issue among the educated persons and professional body because of the risk involved in such transactions.

Though many of such people argue that internet and other technology based transaction is not safe, not practical and would lead to fraud, a lot of people think it safer, flexible in time and can be done anywhere and anytime (Chowdhury and Ahmmad 2011). Cost and availability are the other factors which might influence the

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usages of mobile banking. Thus, it is necessary to have an in-depth analysis for the mobile banking service provider to identify the factors influencing the usages of mobile banking. A clear understanding of these factors will enable mobile banking service providers to develop suitable marketing strategies, business models, processes, awareness programmes and pilot projects (GSMA 2009).

This study has been conducted with the main objective of identifying the factors that influence the usages of mobile banking in Bangladesh. There are some findings in this study which are similar to the findings of the earlier studies related to the mobile banking while other findings are different. For example, a positive relationship has been revealed between the usage of Mobile Banking and Trust as in this research as it was found in the study of Bhattacharjee (2002). Again in his study Lee (2009) discovered significant relation between usages of mobile banking and Time Risk, Social Risk and Financial Risk whereas no relationship has been found between Security Risk and usage of Mobile Banking. On the contrary, this paper explored the negative relationship between Time Risk, Security Risk and Financial Risk while Social Risk has no significant relationship with the usage of Mobile Banking.

The paper is divided into several segments. In the first segment the relevant literatures have been analyzed to find the research gap and hence formulating research question and objectives. In the second segment the methodology of the study has been provided and factors influencing the usages of mobile banking have been identified on the basis of earlier study. The third segment of the paper is the findings and analysis section done through the use of statistical software SPSS-20. Then in the last segment recommendation, policy implication for the business and scope for further study have been highlighted.

2. Problem Statement and Objectives of the Study

The study seeks to investigate the influencing factors of mobile banking in Bangladesh. Thus, it addresses the following questions to be answered.

Question 1: What are the main factors influencing the usages of mobile banking by the mobile banking participants?

Question 2: What influences the users to trust mobile banking?

Question 3: How does the user in Bangladesh perceive risk with regards to mobile banking?

Question 4: What is the perception of mobile banking users in Bangladesh about the convenience in using mobile banking?

Question 5: What comparative advantages do the mobile banking users enjoy?

Hence the specific objectives of the study can be summarized as follows:

- i. To assess the effect of five components of perceived risk (performance risk, security/privacy risk, time risk, social risk and financial risk) with regards to the adoption of mobile banking in Bangladesh.

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- ii. To evaluate the role of ability, integrity and benevolence in building trust to practice mobile banking
- iii. To examine whether convenience (perceived usefulness & perceived ease of use) of using any role to play in adoption of mobile banking in Bangladesh.
- iv. To explore the role of comparative advantages (in terms of cost and time) in choosing mobile banking in Bangladesh.

3. Literature Review

Mobile banking is an application of m-commerce which enables customers to access bank accounts through mobile devices to conduct and complete bank-related transactions such as balancing cheques, checking account statuses, transferring money and selling stocks (Kim *et al.* 2009). Luo *et al.* (2010), defined mobile banking as an innovative method for accessing banking services via a channel whereby the customer interacts with a bank using a mobile device.

In earlier studies in this regard have provided different results as Wu and Wang (2005), in a study on middle class populations, found that cost had minimal significant impact on the adoption of mobile banking while perceived risk, compatibility and perceived usefulness have significant influences. On the other hand Karnani (2009) argues that cost plays important role in choosing mobile banking.

Mattila (2010) identified that the most important attribute in encouraging the use of mobile banking was related to the costs of conducting banking (mean 4.38, standard deviation 2.15). Wish of faster data transmission accounted to the secondly highest importance mean (mean 3.74, standard deviation 2.49). Surprisingly, the third attribute mentioned to boost to mobile banking adoption was authentication with mobile phone to Internet bank (mean 3.67, standard deviation 2.60). Admittedly, the response pattern along different attributes was pretty homogenous. The distinctly most important reason for the trial of mobile banking was the possibility to conduct banking truly regardless of time and place (mean 5.09, standard deviation 1.62).

Cheah *et al.* (2011) argue that Factors such as perceived usefulness (PU), perceived ease of use (PEOU), relative advantages (RA) and personal innovativeness (PI) were found positively related with the intention to adopt mobile banking services. However, social norms (SN) were the only factor found insignificant.

Since much of literatures are not found related to mobile banking in Bangladesh, this paper is an endeavor to mitigate the research gap in this regard. Thus on the basis of the above literatures the paper aims at identifying the factors influencing the usage of Mobile Banking in Bangladesh.

4. Methodology of the Study

4.1 Formulation of Hypotheses

Based on the literatures discussed above and objectives of the study the following hypotheses have been developed:

4.1.1 Perceived Risk Hypothesis

Ho1: There is no relationship between perceived risks (performance risk, security/privacy risk, time risk, social risk and financial risk) and the usages of Mobile Banking.

4.1.2 Trust Hypothesis

Ho2: Trust (ability, integrity and benevolence) has no influence on the usages of Mobile Banking.

4.1.3 Convenience Hypothesis

Ho3: There is no relationship between convenience (perceived usefulness and perceived ease of use) and the usages of Mobile Banking.

4.1.4 Comparative Advantage Hypothesis

Ho4: Comparative advantage does not play any role in adoption of Mobile Banking in Bangladesh.

4.2 Study Period and Sample Selection

At present two banks in Bangladesh are providing with full swing Mobile Banking services namely, Brac Bank Limited and Dutch Bangla Bank Limited. Again, in most of the previous studies it was found that people of age range 20 to 35 years are the main users of mobile banking. For example, Mattila (2010) in his research found that most of mobile banking users have average age ranges from 23 years to 34 years. Similarly, Cheah et.al (2011) found the age range of most of the mobile banking users is 20-25. Considering these previous experiences, this study is conducted among the customers of two above mentioned banks by collecting data in three months period between March 2012 to May, 2012 among the persons whose age range is 20 to 35 years. Since, the study is based on primary data, three months data collection period is thought to be enough to collect data through questionnaire. Again as there are only two banks in Bangladesh which are providing full fledged mobile banking services and as the age range of respondents is 20-35, Hundred (100) clients of the two banks of age range of 20-35 is representative.

4.3 Variable Selection

Based on above literature survey the following variables have been identified to carry on the study.

i) Perceived Risk: It refers to the five facets of risk including performance risk, security/privacy risk, time risk, social risk and financial risk. As defined by Lee (2009), these five risks can be described for mobile banking as follows:

- a) Performance risk: refers to losses incurred by deficiencies or malfunctions of mobile banking servers
- b) Security/privacy risk: is defined as a potential loss due to fraud or a hacker compromising the security of a mobile banking user.
- c) Time/convenience risk: This refers to a loss of time and any inconvenience incurred due to the delays of receiving payments or the difficulty of navigation.
- d) Social risk: refers to the possibility that using mobile banking may result in disapproval by one's friends/family/work group.
- e) Financial risk: is defined as the potential for monetary loss due to transaction errors or bank account misuse.

ii) Trust: There are three dimensions of trust namely ability, integrity and benevolence. This will be observed from three perspectives: the bank, mobile network provider and wireless infrastructure. Bhattacharjee (2002) defined these as follows:

- a) Ability refers to the perception of the consumer about the competency and salient knowledge of the mobile banking service provider to deliver the expected service;
- b) Integrity refers to users' perceptions that the service provider will be fair, honest and adhere to reasonable conditions of transactions;
- c) Benevolence refers to the extent to which a service provider will demonstrate receptivity and empathy towards the user. The service provider will make a good faith effort to resolve users' concerns and intends to do good to the users beyond profit motives.

iii) Convenience: It is defined as the extent to which mobile banking can serve the users' needs. It includes:

- a) Perceived Usefulness: It refers to the degree to which a person believes that using a particular system would enhance his or her job performance (Davis. F ,1989)
- b) Perceived Ease of Usefulness: It is defined as "the degree to which a person believes that using a particular system would be free of effort (Davis. F, 1989)

iv) Relative Advantage: It refers to the comparative benefits that an user of mobile banking may avail which he/she could not get from other traditional banking services as mentioned by Pikkarainen et. al (2004) that users are more likely to adopt mobile banking if they believe using mobile banking will gain more relative advantages as

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compared to other traditional banking channels such as ATM or non-mobile internet banking. It includes perceived cost and time.

- a) Perceived cost Savings refer to the transaction cost of conducting mobile banking transactions, including the airtime and bank charges. Perceived cost is defined as the extent to which a person believes that using mobile banking will cost money (Luarn & Lin 2005). The cost may include the transactional cost in the form of bank charges, mobile network charges for sending communication traffic (including SMS or data) and mobile device cost.
- b) Perceived Time Saving refer to the time required to complete a transaction. Lee (2009) found in his study that time plays an important role in adopting mobile banking service by the users.

4.4 Data Collection

The research is based on primary data. Data have been collected through a structured questionnaire. The questionnaires have been sent to 100 clients of the two banks offering mobile banking as mentioned above though mail with return envelope with proper stamp. Out of the 100 questionnaires sent 68 filled questionnaires have been sent back but 4 of those filled questionnaires 4 have been rejected due to insufficient information. Thus, rate of duly filled returned questionnaires is 64%. Among the 64 clients whose data through questionnaires have been accepted 14 (21.9%) are female and 50 (78.1%) are male. Again out of the total 64 participants 42 participants (65.6%) enjoy mobile banking services while 22 (34.4%) are yet to use mobile banking even though they are highly interested to take part in mobile banking soon.

4.4.1 Questionnaire

Independent variables in this study were selected on the basis of extensive literatures survey. All the variables (12) are tabulated in Table 1 each of these variables measured between two to four questions which tailored with the mobile banking context. Hence, a total of 33 questions were constructed and captured the intention to adopt mobile banking. Responses to these questions were measured by a five-point Likert scale. For example, "1" denoted as strongly disagree, "2" denoted as disagree, "3" denoted as neutral, "4" as agree, and "5" as strongly agree. The responses regarding perceived risk have been measured as, "1" high risk, "2"Risky, "3" no comment, "4" low risk and "5" no risk at all.

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Table 1: Questionnaires Sources and Number of Items

Constructs	Number of items	Sources
Ability of the Service Provider	3	Bhattacharjee (2002)
Benevolence	2	Bhattacharjee (2002)
Integrity	3	Bhattacharjee (2002)
Perceived Usefulness	4	Davis (1989)
Ease of Use	4	Davis (1989)
Perceived Cost Savings	3	Luarn & Lin (2005)
Perceived Time Savings	3	Lee (2009)
Performance Risk	2	Lee (2009)
Social Risk	2	Lee (2009)
Time Risk	2	Lee (2009)
Security Risk	2	Lee (2009)
Financial Risk	2	Lee (2009)

4.5 Validity and Reliability Test

According to Sekeran (1992), if the value of Cronbach's Alpha is smaller than 0.6 it is poor, if it is in the range of 0.60 to 0.80 it is considered acceptable and if it is above 0.80 it is considered good.

Table 2: Construct Reliability Value

Construct	Construct Reliability	Specification
Ability of the Service Provider	0.638	Acceptable
Benevolence	0.802	Good
Integrity	0.809	Good
Perceived Usefulness	0.788	Acceptable
Ease of Use	0.861	Good
Perceived Cost Savings	0.608	Acceptable
Perceived Time Savings	0.864	Good
Performance Risk	0.800	Good
Social Risk	0.624	Acceptable
Time Risk	0.796	Acceptable
Security Risk	0.767	Acceptable
Financial Risk	0.774	Acceptable

Source: Author's calculation through SPSS:20

The above table shows that Cronbach's Alpha ranges from 0.624 to 0.864 showing the acceptable and good ranges of reliability and validity for the variables.

4.6 Model Specification

Masinge K (2010), in his Ms Thesis had used TAM Model and shown how Perceived Risk, Trust, Perceived Usefulness and Perceived Ease of Usefulness lead users towards the adoption of Mobile Banking. Similarly, Cheah et.al (2011), has established

his model by showing how Perceived Usefulness (PU) Perceived Ease of Use (PEOU) Relative Advantages (RA) Perceived Risk (PR) and Personal Innovativeness (PI) influence Behavioral Intention to Adopt Mobile Banking (IU). Considering the above two models and relevant literatures discussed in Literature Review section the following model has been developed.

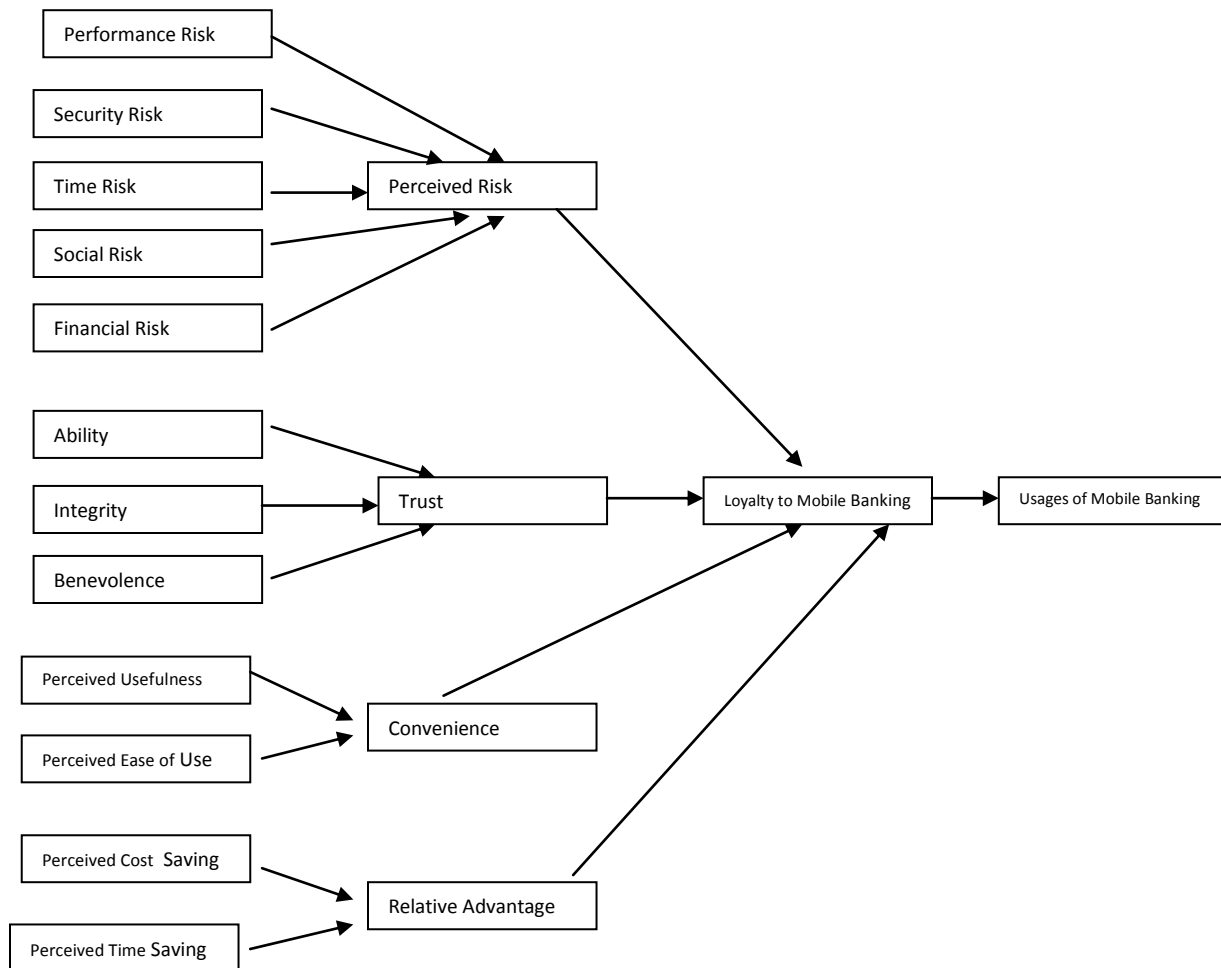


Figure 1: Proposed Model showing influencing factors of Mobile Banking Usage

The above model shows five types of risks (performance risk, security/privacy risk, time risk, social risk and financial risk) influence users’ perception while it shows the combination of ability, integrity and benevolence as the building factor of trust. Again, perceived usefulness and perceived ease to use make mobile banking a convenient one whereas time perceived cost and time savings provides with comparative advantages for the user of mobile banking. Thus, perceived risk, trust, convenience and comparative advantages create loyalty towards the use of mobile banking which in turn influences the usages of mobile banking.

4.7 Regression Model

Hair et.al (2005) argued that for analyzing the relationship between one dependent variable and several independent variables multiple regressions analysis can be applied. Hence, multiple regression analysis is an appropriate way to check the relationships between independent variables and dependent variable in this study.

The linear multiple regression line based on the above model has been identified as follows:

$$UMB = \alpha_1 + \beta_1 PR + \beta_2 T + \beta_3 C + \beta_4 R$$

Where,

UMB = Usage of Mobile Banking

PR = Perceived Risk

T = Trust

C = Convenience

R = Relative Advantage

α_1 = The usage of Mobile Banking in absence of Perceived Risk, Trust, Convenience and Relative Advantage variables.

β_1 = The partial change in the usage of Mobile Banking due to one unit change in Perceived Risk while other things remain constant.

β_2 = The partial change in the usage of Mobile Banking due to one unit change in Trust variable while other things remain constant.

β_3 = The partial change in the usage of Mobile Banking due to one unit change in Convenience variable while other things remain constant.

β_4 = The partial change in the usage of Mobile Banking due to one unit change in Relative Advantage variable while other things remain constant.

5. Discussions on Results

5.1 Relationship between Usage of Mobile Banking and Independent Variables

The following Table reveals the relationship between the usage of mobile banking and each individual independent variable.

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Table 3: Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	-1.709	.101		-16.866	.000
Ability of the Service Provider	.162	.448	.308	3.15	.003
Benevolence	.192	.071	.382	2.989	.004
Integrity	.173	.124	.354	3.398	.002
Perceived Usefulness	.112	.036	.021	3.319	.002
Ease of Use	.165	.047	.310	3.479	.001
1 Perceived Cost Savings	.226	.033	.446	6.130	.000
Perceived Time Savings	.255	.036	.485	7.145	.000
Performance Risk	.242	.047	.467	3.313	.002
Social Risk	.029	.031	.059	.937	.353
Time Risk	-.113	.380	-.323	-4.806	.000
Security Risk	-.153	.240	-.308	-4.325	.000
Financial Risk	-.149	.197	-.299	-3.001	.004

a. Dependent Variable: Participant of Mobile Banking

Source: Author's calculation through SPSS:20

The individual variables indicate that all the null hypotheses except the social security hypothesis have been rejected confirming the significant relationship between eleven variables (Ability, Benevolence, Integrity, Perceived Usefulness, Perceived Ease of Use, Perceived Cost Savings, Perceived Time Savings, Performance Risk, Time Risk, Security and Financial Risk) while null hypothesis for security risk has been accepted indicating no relationship between social risk and usages of mobile banking. More precisely, Ability ($\rho < 0.05$), Benevolence ($\rho < 0.05$), Integrity ($\rho < 0.05$), Perceived Usefulness ($\rho < 0.05$), Perceived Ease of Use ($\rho < 0.05$), Perceived Cost Savings ($\rho < 0.01$), and Perceived Time Savings ($\rho < 0.01$) positively and significantly influence the usages of Mobile Banking in Bangladesh as it is seen from their positive coefficients. Again, Performance Risk ($\rho < 0.05$), Time Risk ($\rho < 0.01$), Security Risk ($\rho < 0.01$) and Financial Risk ($\rho < 0.05$) have negative coefficients which reveal their negative impact on the usages of mobile banking which means having such higher risk in using mobile banking will discourage the users to adopt mobile banking services.

Divergent, Social Risk ($\rho > 0.05$) has no significant influence on the usages of mobile banking in Bangladesh.

The results for individual variable differ from the study conducted by Lee (2009) in the sense that he discovered significant relation between usages of mobile banking and Time Risk, Social Risk and Financial Risk whereas no relationship has been found between Security Risk and usage of Mobile Banking. On the contrary, this paper

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explored the negative relationship between Time Risk, Security Risk and Financial Risk while Social Risk has no significant relationship with the usage of Mobile Banking.

5.2 Multiple Regression Analysis (MRA)

Table 4: Model Summary for MRA				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.681 ^a	.646	.615	.12191

Source: Author's calculation through SPSS:20

Table 5: ANOVA						
Model		Sum of Squares	Df	Mean Square	F Statistic	Sig.
1	Regression	13.680	12	1.140	76.699	.000
	Residual	.758	51	.015		
	Total	14.438	63			

Source: Author's calculation through SPSS:20

The F-statistics (Table 5) for this study is significant at 1 percent level (Sig. $F < 0.1$), showing the fitness of the model. For the coefficient of determination, Adjusted R^2 stated 0.615 (Table 4), indicating that 61.5% of the changes in the usages of mobile banking can be explained by the changes in the four independent variables called Perceived Risk, Trust, Convenience and Relative Advantage.

Table 6: Coefficients ^a of Regression Variables					
Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	1.209	.051		.866	.000
Perceived Risk	-.682	.048	.908	4.15	.000
Trust	.492	.071	.782	3.469	.001
Convenience	.875	.084	.954	3.321	.002
Relative Advantage	.412	.056	.421	5.319	.000

a. Dependent Variable: Participant of Mobile Banking Source: Author's calculation through SPSS:20

The most influencing factor is the convenience as represented by perceived usefulness and perceived ease of use which has positive impact on the usage of mobile banking while perceived risk negatively influence the usage of mobile banking. The fitted regression model on the basis of statistical finding through SPSS (Table-6) follows:

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$$UMB = 1.209 - 0.682 PR + 0.492 T + 0.875 C + 0.412 R$$

5.3 Explanation of the Model

The partial change in the usage of mobile banking due to one unit change in perceived risk factor is -0.682 while other things remain constant and it is statistically insignificant at 1% level of significance (Table 6). Thus it can be said that risk involved in using mobile banking make people reluctant to use such tool for banking.

The partial increase in the usage of mobile banking due to one unit change in trust is 0.492 while other things remain constant and it is statistically significant at 1% (Table 6).

The partial increase in the usage of mobile banking due to one percent change in convenience is 0.875 while other things remain constant and it is statistically significant at 5% level of significance (Table 6).

The partial increase in the usage of mobile banking due to one unit change in relative advantage variable is 0.412 while other things remain constant and it is statistically significant at 1% (Table 6).

6. Practical Implications for Business

The results showed that only 65.6% people of age between 20 to 35 years (this range of age is the best users of mobile banking as shown in earlier studies) are currently using mobile banking services while the rest of the 34.4% are not enjoying such facilities even though they have an interest to use it in the future. This is a great marketing opportunity for businesses to reach poor people with a broad range of financial services, Thus it calls for a good understanding of behavioural pattern of target market. This research revealed that perceived risks (except social risk), trust, convenience and comparative advantages are influencing and critical factors when introducing services and products to customers in low income markets like Bangladesh. Mobile banking service providers need to continuously strive to simplify the mobile banking application used for transactions.

7. Scope for Future Research

The effect of demographic variables such as race, age, gender and culture on the usages of mobile banking was not intensively explored. Some demographic variables have interrelations which might have influence on the usages of mobile banking as Lee (2009) stated that the cognitive propensity of individuals to risk differs across culture. This means that the customers' acceptance of mobile banking may be influenced by cultural differences. Again this study is limited within the city branches of two banks among the people having age range of 20 to 35 years. Including people of different age group both from town and villages may provide better results. Nevertheless, the risk and trust factors demand for more intensive analysis to spread mobile banking throughout the country.

8. Conclusions

This study successfully identified the factors influencing the usage of mobile banking in Bangladesh. The findings of this study revealed that perceived risks (except social risk), trust, convenience and comparative advantages are the factors affecting the behavioral intention of mobile users to adopt mobile banking services in Bangladesh. Thus, this research has provided valuable knowledge and information to banks, service developers, and software engineers to enhance consumers' intention to use mobile banking services in future. This study would have provided with better applications if it were not limited within the city branches of two banks among the people having age range of 20 to 35 years as including people of different age group both from town and villages may provide better results. Moreover, inclusion of factor like cultural orientation of the user of banking service might have important influence on the use of mobile banking which is not incorporated in this study. Still it can be concluded that the mobile banking service providers which are willing to provide useful and cost effective products stand to gain substantial market share.

References

- Bhattacharjee, A 2002, 'Individual trust in online firms: Scale development and initial test', *Journal of Management Information Systems*, Vol.19, No.1, pp. 211-241.
- Ching, M et.al 2011, 'Factors Affecting Malaysian Mobile Banking Adoption: An Empirical Analysis', *International Journal of Network and Mobile Technology*, Vol. 2, No.3, pp.149
- Chowdhury, S and Ahmmad, N 2011, 'Factors Affecting Consumer Participation in Online Shopping in Malaysia: The Case study of University Students', *European Journal of Business and Economics*, VOL .5 No.4, pp 49-53
- CGAP 2006. 'Mobile Phone Banking and Low-Income Customers Evidence from South Africa' Retrieved from: <http://www.globalproblems-globalsolutions-> Retrieved on 12 July, 2012.
- Davis, F 1989, 'Perceived usefulness, perceived ease of use, and user acceptance of information technology', *MIS Quarterly*, Vol. 13, No. 3, pp. 319-340.
- Field, A, 2005, 'Discovering Statistics Using SPSS', 2nd ed., London: Sage, 2005.
- GSMA 2009, 'Mobile Money for the Unbanked' Annual report 2009.
- I Hair, J 2005, 'Multivariate Data Analysis', 6th ed., Englewood Cliffs, NJ: Pearson Prentice-Hall, 2005.
- Karnani, A 2009, 'Romanticizing the Poor', *Stanford Social Innovation Review*. Retrieved from: <http://www.ssireview.org/pdf/RomanticizingthePoor.pdf> Retrieved on 12 July, 2012.
- Kim, G, Shin, B. & Lee, HG (2009), 'Understanding dynamics between initial trust and usage intentions of mobile banking', *Information Systems Journal*, Vol.19, No.3, pp.283–311.
- Lee, KC, & Chung, N 2009, 'Understanding factors affecting trust in and satisfaction with mobile banking in Korea: A modified DeLone and McLean's model perspective', *Interacting with Computers*, Vol.21, No.5-6, pp.385-392.

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- Luarn, P and Lin, H 2005. 'Toward an understanding of the behavioural intention to use mobile banking', *Computers in Human Behavior*, Vol.21 NO.6, pp.873- 891
- Luo, X, Li, H, Zhang, J and Shim, J P 2010, 'Examining multi-dimensional trust and multi-faceted risk in initial acceptance of emerging technologies: An empirical study of mobile banking services', *Decision Support Systems*, Vol.49, No.2, pp.222-234.
- Masinge, K 2010, 'Factors influencing the adoption of mobile banking services at the Bottom of the Pyramid in South Africa' An integrated research report submitted to the Gordon Institute of Business Science (GIBS), University of Pretoria, in partial fulfilment of the requirements for the degree of Master of Business Administration, pp.38
- Pikkarainen, T, Pikkarainen, K, Karjaluoto, H and Pahnla, S 2004, 'Consumer acceptance of online banking: An extension of the technology acceptance model', *Internet Research*, Vol. 14, No. 3, pp. 224-235.
- Sekeran, U 1992 'Research Method for Business', A Skill Building Method, 2nd Edition, John Wiley and Sons, Inc. Canada.
- Sultana, R 2009, 'Mobile Banking: Overview of Regulatory Frame Work in Emerging Market' *World Journal of Information Technology*, Vol. 4, No.1, pp 124-131
- Wu, J and Wang, S (2005), 'What drives mobile commerce?: An empirical evaluation of the revised technology acceptance model', *Information & Management*, Vol.42, No.5, pp.719-7

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8. The mobile banking service provider has the ability to provide mobile banking service (Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

9. The service providers' ability to mobile banking service is similar to its ability to provide traditional banking service (Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

10. Benevolence of the service provider has important influence in choosing mobile banking service (Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

11. The mobile Banking service providers in Bangladesh tend to provide benevolent service (Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

12. Integrity of the service provider has important influence in choosing mobile banking service (Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

13. Integrity of the service provider will make the mobile banking a better option than the traditional banking (Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

14. The mobile Banking service providers in Bangladesh tend to provide integral service (Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

15. Using mobile banking would enable the users to accomplish tasks more quickly (Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

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16. Using mobile banking would make it easier for the users to carry out tasks.

(Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

17. Mobile banking is useful.

(Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

18. Overall, using mobile banking is advantageous.

(Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

19. Learning to use mobile banking would be easy

(Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

20. Interaction with mobile banking does not require a lot of mental effort.

(Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

21. it is easy to use mobile banking to accomplish banking tasks

(Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

22. The usage of mobile banking is easier than the traditional banking.

(Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

23. The mobile banking service providers in Bangladesh need to bear heavy cost to purchase equipment for such service. (Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

24. The mobile banking access cost is expensive to use.

(Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

Kabir

25. The mobile banking transaction fee is expensive.

(Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

26. It takes much time to learn about the use of mobile banking

(Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

27. The usage of mobile banking service enables to get banking service quickly

(Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

28. Mobile banking is faster than traditional banking

(Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

29. Mobile banking services may not perform well because of network problems.

(Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

30. Mobile banking services may not perform well and process payments incorrectly.

(Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

31. The users' friends, family and colleagues would think less of them in case of any wrong in transactions through mobile banking.

(Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

32. When mobile banking users' bank account incurs fraud or hacking, they will have a potential loss of status in social group.

(Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

33. Usage of mobile banking leads to time fixing payments errors.

(Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

Kabir

34. Due to poor network of mobile in some areas may take a lots of time to do transactions through mobile banking.

(Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

35. Providing personal privacy information over mobile banking may not be safe

(Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

36. There is a fear of using mobile banking that other people may access my account through hacking or other means. (Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

37. When transferring money through mobile banking, the users afraid that they will lose money due to careless and mistakes . (Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)

38. Due to transactions errors there might be loss of money

(Put a tick in the appropriate box)

Strongly agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly disagree (1)