Moudud-Ul-Huq, Syed; Perhiar, Shumaila Meer

Article

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What Factors Need to Be Considered for Adopting M-Banking Services in a Developing Economy?

Syed Moudud-Ul-Huq, Mawlana Bhashani Science and Technology University, Bangladesh*
https://orcid.org/0000-0002-9226-5131

Shumaila Meer Perhiar, Huazhong University of Science and Technology, China

ABSTRACT

The study attempts to explore the effects of key factors influencing the customer acceptance of mobile banking adoption, particularly those that affect the consumer's attitudes towards and intention to use. This study builds a comprehensive theoretical model explaining M-banking adoption in Bangladesh. To assist in identifying these factors, an empirical study was conducted among general citizens of Bangladesh to identify the acceptance of M-banking. The study revealed that the critical factors which contribute to the adoption of M-banking in Bangladesh. A consumer survey on 250 mobile bank users of different mobile network operators in Bangladesh was undertaken where respondents completed a questionnaire about their perceptions of mobile banking's usefulness, perceived ease of usefulness, perceived risk, perceived cost, and perceived trust. This study offers an insight into mobile banking in Bangladesh, focusing on influencing factors and perceived trust was found to be the most significant factor affecting the adoption of M-banking in Bangladesh.

KEYWORDS

Adoption, M-banking, Perceived Cost, Perceived Ease of Usefulness, Perceived Risk, Perceived Trust

1. INTRODUCTION

We are living in an age of innovation and modern technologies which makes the business process easier and closer to consumers. In this era of globalization, businesses mostly focus on their activities with the most use of information technology and make it an integral part of their activities. The banking industry is one of them.

The key to the success of banking industries is customer satisfaction that's why banks try to provide superior services to customers. Now all banking industries are computing their business transactions through technology-based applications to satisfy customers. As one of the most innovative and novel technologies, Mobile banking represents a good example of a mobile technology breakthrough in the banking sector, enabling customers to independently produce financial transactions (i.e., balance enquiries, fund transfers, payment of bills) through mobile devices, smart-phones, or Personal Digital Assistants (PDA) at the time and place that customers choose (Alalwan et al. 2016).

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In the case of this research, we chose to study the cases of Bangladesh, because this country has a different status of development and different indicators regarding Information and Communication Technology (ICT) adoption.

Despite the difficult business environment, mobile communication is growing rapidly and cited as the fast-growing industry in Bangladesh. The numbers of current mobile subscribers in Bangladesh is about a hundred million, which is roughly about 60% of the total population whereas many users have multiple mobile phone. Having a mobile enables the customer to do banking transactions without physical machines which reduce time-consuming. Users can also connect with any cyber world at any time and staying at any location. So, it is a great opportunity for Bangladesh to capture more customers through Mobile Banking.

"Mobile banking is an emerging application of mobile commerce that could become an additional revenue source to both banks and telecom service providers. It is a form of service convergence enabled by innovative technologies". It is a cost-effective service which allows users to break free of the constraints of time, place, and queues (Al-Ajam & Nor, 2015). Generally, mobile Banking is a form of banking service where funds are transferred or exchange through electronic signals where customers use access codes such as a password or personal identification number (PIN) instead of a signature on a cheque or a document. Mobile Banking removes space and time limitations from banking activities. So, Banks, these days seems to be more motivated about mobile banking services.

In Bangladesh, Dutch Bangla Bank ltd started the 1st mobile banking service as Dutch-Bangla Bank Mobile Banking (Rocket) in December 2010. Atikur Rahman, former Bangladesh Bank Governor attended a press conference to announce the launch of mobile banking service of Dutch Bangla Bank Ltd. through City cell and Banglalink in Dhaka in the year of 2011. Following this operation, various other Banks like BRAC Bank Limited, United Commercial Bank Ltd and Government Bank like Rupali Bank started their Mobile Banking services. In recent year, the Bangladesh Post Office also wrote their name in this path.

Mobile banking is more beneficial to rural people in Bangladesh. Farmers, village businessman, day labour find themselves good at mobile banking than any other banking activities, Because of the difficulties of the transaction of money have been dispelled by signing up in mobile banking. It is difficult to go to the bank for rural people as a bank doesn't produce services in a rural area generally as the nearest one is some miles away from their house. But mobile banking is close to their home. They can receive and send money quickly and easily with a mobile phone from home or by going to the nearest agent in the local market. The village people who have early left school ages and unable to read and write, that doesn't matter now. They can use a mobile phone for transferring money hassle-free to fill up the form in writing. It makes their life easier as previously said the conventional bank doesn't exist everywhere. So, it is evident that Bangladesh has much potential to upgrade financial position through mobile banking and if the untapped market can be captured it will add a new dimension to Mobile Banking in Bangladesh. However, for flourishing of M-banking, what are other things else to consider for policymakers? The answer of the question is yet to explore especially, in a developing economy like Bangladesh.

The remainder of the study is structured as follows. The second section discusses literature review; the following section develops hypotheses which are followed by conceptual model in section four; in section five it describes methodology; in the following section discusses the main findings and section seven concludes the study.

2. LITERATURE REVIEW

Literature reveals that abundant research on electronic banking has focused on Internet banking (also called online banking), but literature shows very few studies conducted on mobile banking and receives underrated attention. M-banking has gained great interest in the research community worldwide as it is expected to have an impact in developing countries. So, the majority of the studies have been conducted in developing countries.

This study aspires to advance our understanding of what factors influencing the growth of mobile banking adoption in Bangladesh. It will also advance our understanding of how mobile banking is upgrading in our Country (Bangladesh) through generating values for different parties or sectors and developing the socio-economic conditions of it. Again this study will identify the prospect of mobile banking in Bangladesh, problems and challenges of mobile banking in Bangladesh, solutions to eradicate these problems and how customers are accepting this kind of services of the banking industry.

People of this country get accustomed to the traditional banking system. So, they are afraid of using mobile banking as it is a new form of the banking system in Bangladesh and they have little knowledge about it so they cannot take it trustworthy. Though the number of users of the mobile phone across the world is significant, many researchers observed that people are less inclined to adopt a new technology-based banking system. But today this situation is changing and people adopt mobile banking as a good system of banking services.

Advancements in information technology have transformed the traditional retail banking delivery system (Shaikh et al. 2015). M-banking is the most promising and innovative channel with greater degrees of ubiquity and localization among different banking service channels, such as branch banking, automated teller machines (ATMs), internet banking. However, among all channels, m-banking is the most promising and innovative channel with greater degrees of ubiquity and localization(Koenig-Lewis, Palmer et al. 2010). The ubiquity of mobile banking means customers can get the banking services irrespective of time and geographical location(Ko, Kim et al. 2009). Localization is another distinctive characteristic of m-banking which means m-banking can locate the geographical location of the mobile user and provide location-specific banking services (e.g., letting the customer know the exchange rates of the location, availability of ATMs and availability of money transfer facilities) (Junglas and Watson 2006). Mobile banking has become more flexible and useful banking service because of having these distinct characteristics and it becomes easier for us. Now financial institutions can satisfy customer needs and expectations provide useful services to them through M-banking.

M-Banking is an application of m-commerce delivered by financial institutions or banks that permits its users to perform financial transactions remotely by adopting a mobile device like personal digital assistants (PDA), mobile phone or smartphone(Al-Jabri & Sohail 2012). This service is implemented to make payments such as checking banking accounts, making transactions, and transferring money (Slade, et al. 2015, Alkhaldi 2016, Arcand et al. 2017). It removes some barriers of traditional banking system such as the physical presence of customers or bank branches. Now they can easily complete their banking tasks such as investment, payments etc. through websites. They can collect information through customers positive or negatives reviews by customers through social media such as Facebook, Twitter etc. and can decide what to do. So, customers review these websites have a significant impact on mobile banking adoption in Bangladesh.

While accessibility is an advantage of mobile banking, susceptibility to security risks may considerably inhibit its success(Chikomo et al. 2006, Saxena and Chaudhari 2013). Like other information and communication technology (ICT) embedded services, such as electronic government and electronic-commerce, mobile banking is highly and widely under threat from technological, managerial, and behavioural risks(Chikomo et al. 2006, Saxena and Chaudhari 2013). These risks include lack of conðdentiality between banks and customers for privacy, lack of integrity for originality of communicated information, lack of authenticity for trusted and reliable identiðcation between banks and users, and lack of availability of service due to external interruption during ñow of information through connected networks(Chikomo et al. 2006). These risks may arise from many subcomponents and design features of mobile banking, such as users, mobile devices, application software and data, mobile operators, and ðnancial service providers etc.

(Sharma & Kansal 2012) stated some problems that customers face while conducting mobile banking. They found that the adoption rate of mobile banking is far behind than the pace of technology advancement. Complications in functionality and privacy-related issues because customers feel doubtful about the convenience and security of using mobile banking service. In addition, banks

cannot provide updated service according to the need of customers because of excessive cost and competitiveness.

Despite the industry efforts to implement m-banking, not much research effort has been devoted to rural Bangladesh. Existing research efforts on M-banking in Bangladesh focused the customer and technology perspectives (Mousumi & Jamil 2010, Rayhan et al. 2012)

Customer Relationship Management is another factor affecting the adoption of m-banking. The relationship grows when banks start to think like a customer, and with the interaction with them on mobile banking, give valuable suggestions. (Woodcock et al. 2011) recognize the purpose of the CRM in mobile banking, to identify, interact, and sell to customers with the creation of a relationship with them.

So, Customer Relationship Management can be an important tool to understand customer interaction in M-banking.

This research aims to investigate the factors influencing the consumer to adopt mobile banking services so that MFIs can improve their facilities and make people aware of the development of the banking sector in Bangladesh.

3. RESEARCH HYPOTHESES

3.1 Perceived Usefulness (PU)

Perceived Usefulness is an important factor in determining the adaptation of mobile banking. PU refers to external factors such as efficiency and effectiveness (Ramayah & Lo 2007). (Davis 1989) define perceived usefulness (PU) as the ''subjective probability that using technology will increase the individual's performance''. PU has been identified as having a significant positive correlation with both attitude and usage intention, for example, PU positively affects the adoption of mobile internet and M-services (Chiu et al. 2005). Thus, one can consider perceived usefulness as an influential construct in Mobile banking. In this respect, the following hypothesis is developed:

Hypothesis 1. Perceived usefulness has a direct effect on the adoption of M-banking.

3.2 Perceived ease of use (PEOU)

Ease of use refers to the degree of user's willingness to use the system where they do not make any effort (Davis 1989). Again ease of use considers user behaviour directly or indirectly through perceived usefulness. (Brown 2002) found out that perceived usefulness mostly affects the group of external variables which are more likely to exert influence upon the perceived ease of use. So there is a positive relationship between ease of use and intention of using mobile banking technology. In this respect, the following hypothesis is developed:

Hypothesis 2. Perceived Ease of using M-banking directly affects M-banking adoption.

3.3 Perceived Risk (PR)

The theory of perceived risk has been proposed since 1960 to define customer behaviour and factors affecting their decision-making(Taylor 1974). (Coursaris et al. 2003) found out that the risk associated with M-banking is high because of the high probability of theft and loss of a mobile device. (Lovelock et al. 1998) argue that satisfaction and adoption of technology-enabled service are highest when the risk of using it is low. We found that this variable has a significant negative effect on the attitude and using M-banking. That is to be said that the higher the risk of using new technology, the more negative is the attitude toward it, and the less is the willingness to its usefulness. So, the following hypothesis is formulated:

Hypothesis 3. Perceived risk diversely affects adoption of M-banking.

3.4 Perceived Cost (PC)

Perceived costs can be a large barrier to adoption of M-banking. For determining the real costs and measuring the costs of acquiring and using new technologies, the adopters are usually faced with hidden costs which are likely to affect the costs of adoption of mobile banking. (Wu et al. 2005) found out that costs have a significant negative effect on behavioural inclination for using cell-phone for business. On the other hand, low costs can encourage customers to use e-banking (Sathye 1999). (Wessels and Drennan 2010), in their study on the effect of cost on usage intention, concluded that there is a negative relationship between perceived cost and intention to use M-banking. In other words, the higher are the costs of using new technology such as M-banking, the less will be its use. In this regard, a hypothesis is formulated as follows:

Hypothesis 4. The perceived cost of use adversely affects the adoption of M-banking.

3.5 Perceived Trust (PT)

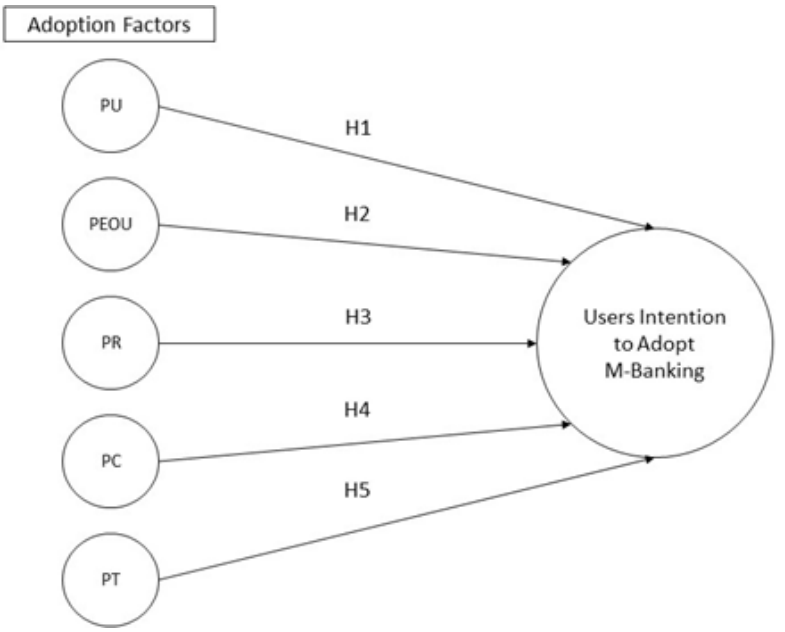
Trust is the belief of a company in the honesty of its business partner and other factors relevant to this concept. It can be defined as the tendency to trust in a business partner which is capable of being trusted. Perceived risk and trust are interrelated concepts and have been frequently identified as key barriers to adopting online and mobile services (Featherman & Pavlou, 2003).

Trust of the customers need to be formed and retained in the long term, and understanding the risks perceived by the customers is very useful for the banks in identifying the barriers of adoption and removing them (Hanafizadeh et al. 2014). Therefore, investigating this variable and its effect on the attitude and usage intention seems necessary. In this regard, the following hypothesis is formed:

Hypothesis 5. Trust has a direct effect on the adoption of M-banking.

4. CONCEPTUAL MODEL

Figure 1. Conceptual Model



5. METHODOLOGY

5.1. Model

The proposed model of this study conceptualizes the relationship between the factors adoption of mobile banking (figure 1). Here in this model adoption of mobile banking is a dependent variable and Perceived usefulness, perceived ease of use, perceived risk, perceived cost and perceived trust which are the factors of adoption of mobile banking in Bangladesh are the independent variables.

5.2. Strategy

In this study, a google form questionnaire was used to collect data during 2019 (started from August and ended in December). The questionnaire consisted of nine sections. The first section contained the abstract of the research. The second section contained a personal description. The third section contained basic questions about mobile banking. The fourth section contained questions about the adoption of mobile banking. The next sections asked each subject to independent factors. The fifth section contained the questions of perceived usefulness. The sixth section contained perceived ease of use. Then the seventh section is related to perceived risk. The eighth section is asked about perceived cost and the last section is contained about perceived trust.

300 questionnaires were distributed to potential respondents. Out of the 300 questionnaires, 270 were returned which made up the response rate of 90%. Out of 270 questionnaires 15 having missing values and we eliminated 05 for high variability. Hence, we have 250 observations to run for PLS.

A portion of research team assistance involved in the distribution of the questionnaires and explained the purpose of the study and answered any type of topic related problem in order to make them understandable to participants.in order to analyse the data and to examine the relationship among the variables, SMART PLS applied to asses both the measurement model and structural model. PLS analysis technique is selected in our study purpose as it can evaluate all paths of simultaneously.to find out the relationships, all measurement items were verified, and missing values were discarded by sample means for testing validity, reliability and statistical power.

6. DATA ANALYSIS & FINDINGS OF THE STUDY

6.1 Reliability & Validity

The study results show explanatory factors that affect adoption toward mobile banking in Bangladesh. The variables that are highly related within the group are considered within the factors. The greater the coefficients, the more the variable are pure measures of factor. The minimum level of the alpha coefficient is 0.7 which indicate the composite reliability. Above 0.7 is also considered as reliable. And the level of significance measures the validity which is 0.5. Above this value also indicate that this variable also satisfies validity. Five factors were initially formed considering 25 variables to influence consumer attitudes towards mobile banking in Bangladesh. Factor analysis was conducted to know the underlying factor associated with all 25 variables. This study exposes that consumer attitudes towards mobile banking adoption in Bangladesh are highly influenced by five factors Perceived usefulness(H1); Perceived ease of use(H2); Perceived Risk(H3); Perceived cost(H4) and Perceived Trust(H5) those have more alpha score than significant level. However, it was tried in this study to identify the variables affecting mobile banking adoption in Bangladesh. Based on this result obtained from the analysis of the structural model, Perceived Trust (0.922) was identified as the most influential factor in comparison to Perceived cost (0.916), Perceived Usefulness (0.860), Perceived Risk (0.882), Perceived Ease of Usefulness (0.880). Thus it can be concluded as hat compatibility of factors adoption of M-banking in Bangladesh. (table 1)

6.2 Structural Equation Model

We test the research hypotheses based on the review of the literature after evaluating the reliability and validity of the measurement scales. We also developed a structural equation model for each group.

Table 1. Construct Reliability and Validity

	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
AMB	**0..912**	**0.933**	**0.672**
PU	**0.798**	**0.860**	**0.552**
PEOU	**0.827**	**0.880**	**0.597**
PR	**0.869**	**0.882**	**0.638**
PC	**0.882**	**0.916**	**0.689**
PT	**0.894**	**0.922**	**0.702**

Considering the absence of normality of the variables, we opted for the maximum likelihood estimation method and bootstrapping technique (or bootstrap learning samples) for 250 consecutive steps or samples, and a significance level of 83%. In the bootstrapping technique, we used the Bollen-Stine's corrected p-value, testing the null hypothesis that the model is correct. Through re-sampling, this technique permits the standard error of the constructs to be corrected. Before evaluating each of the three models in further depth and examining the differences among them, the overall goodness of fit was verified to be satisfactory as the values of the goodness of fit indicators were within the levels recommended in the literature. (Hung, Papakostas et al. 2004)- (figure 2 & 3)

6.3 Hypothesis Testing

Figure 2. PLS Algorithm Technique

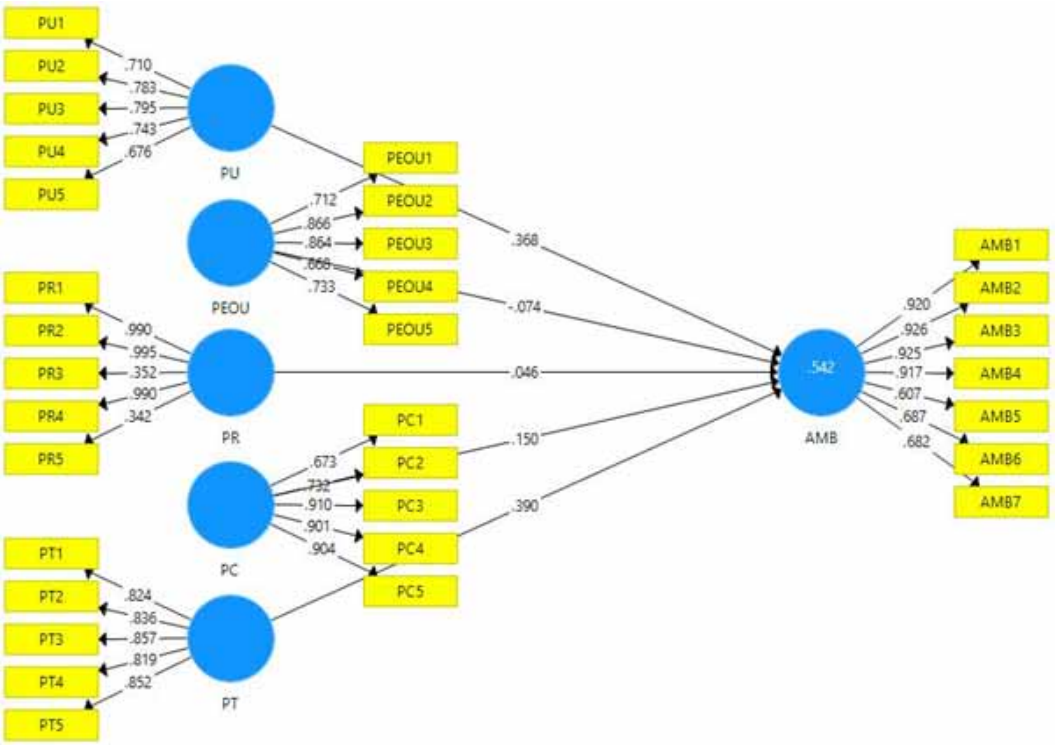
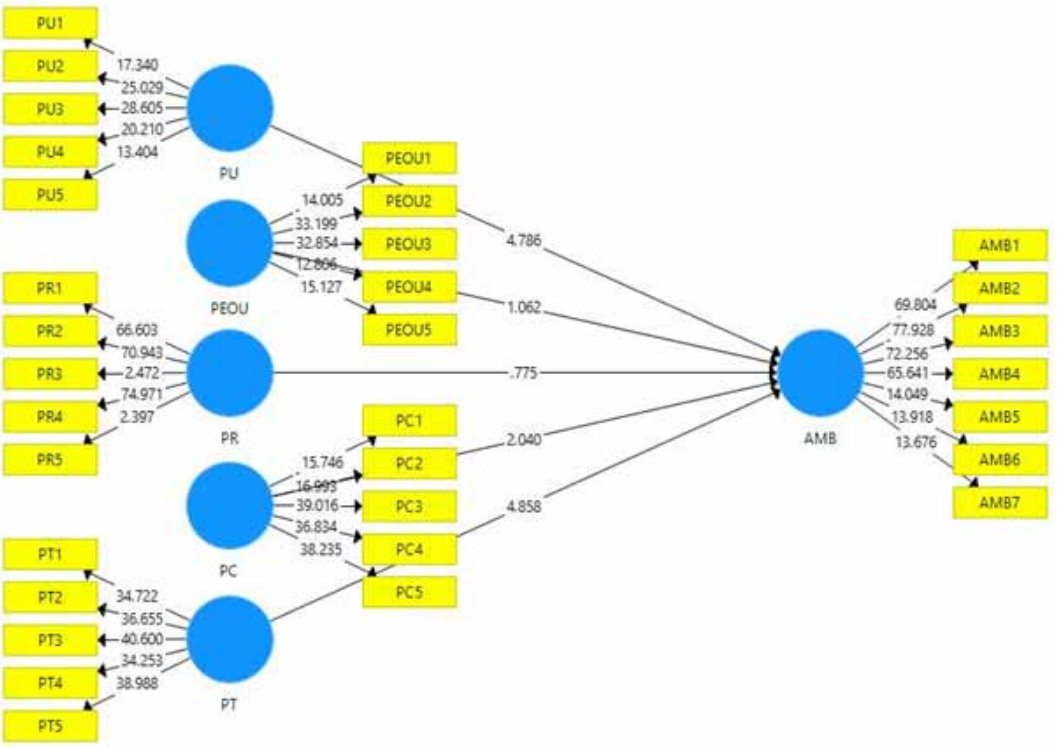


Figure 3. Hypothesized Model Structure and Results



6.4 Discriminant Validity Test

For discriminant validity test, (Fornell and Larcker 1981) suggested that the square root of the average variance extracted (AVE) for each factor was greater than its correlations with other factors. Discriminant validity implies how well individual item factor connects to its hypothesized construct in comparison to others (Osman & Sentosa 2013). Discriminant validity is measured via cross-loadings; and the relationship between correlations among first-order constructs and the square roots of AVE (Fornell & Bookstein 1982, Chin 1998). This table (2) demonstrates discriminant validity level using Fornell-Larcker Criteria for each construct which satisfies the above-mentioned criteria and we termed discriminate validity as significant.

Table 2. Discriminant Validity Test

	AMB	PC	PEOU	PR	PT	PU
AMB	**0.820**					
PC	**0.617**	**0.830**				
PEOU	**0.537**	**0.642**	**0.773**			
PR	**-0.378**	**-0.469**	**-0.424**	**0.799**		
PT	**0.674**	**0.753**	**0.693**	**-0.602**	**0.838**	
PU	**0.660**	**0.656**	**0.716**	**-0.407**	**0.678**	**0.743**

6.5 Outer Loading and Cross Loading Matrix

The values of outer loadings should be greater than 0.7, revealing that the indicators share more variance with their respective latent variable (LV) than with error variance. A lower limit of 0.50 may be acceptable (Chin 1998). Outer loading results are shown in Table 3.

Table 3. Outer Loading and Cross Loading Matrix

	AMB	PU	PEOU	PR	PC	PT
AMB1	0.920					
AMB2	0.926					
AMB3	0.925					
AMB4	0.917					
AMB5	0.607					
AMB6	0.687					
AMB7	0.682					
PU1		0.710				
PU2		0.783				
PU3		0.795				
PU4		0.743				
PU5		0.676				
PEOU1			0.712			
PEOU2			0.866			
PEOU3			0.864			
PEOU4			0.668			
PEOU5			0.733			
PR1				0.990		
PR2				0.995		
PR3				0.352		
PR4				0.990		
PR5				0.342		
PC1					0.673	
PC2					0.732	
PC3					0.910	
PC4					0.901	
PC5					0.904	
PT1						0.824
PT2						0.836
PT3						0.857
PT4						0.819
PT5						0.852

6.6 Bootstrapping

For the purpose of testing research hypotheses, the bootstrapping technique of PLS-SEM was applied to generate the value of T-statistics value to see whether these value support hypotheses or not. The level of confidence for testing hypotheses was chosen to be 1.96, all hypotheses for which the significance number is outside the range -1.96 to 1.96 are accepted. Table 4 summarizes that the hypotheses regarding the Adoption of mobile banking and about its factors. So, from table 4 it appears that two hypotheses are rejected whereas the remaining three hypotheses are accepted at 5% significance level and path coefficient with T-statistics which is larger than 1.96.

Here from the table 4 of result regarding hypotheses supported and not supported condition, we can see that peoples or who already adopt mobile banking gave their opinion and based on these the results reveals that Mobile banking adoption isn't affected by perceived ease of use and perceived risk. Value of perceived ease of use's t-statistics hypothesis is 1.003 which is lower than the acceptance criteria (1.96) and P-value is .317 which is greater than the significance level (0.05). Again, we can see that perceived risk's t-statistics hypothesis is 0.745 which is also lower than the acceptance criteria (1.96) and P-value is 0.456 which is greater than the significance level (0.05). That's why these hypotheses are termed as not supported. Next, the analysis also shows that the Adoption of mobile banking is affected by PC, PT and PU as T-statistic and P-value of perceived risk are (T=2.205>1.96 and P-value 0.028<0.050), perceived trust is (T=4.860>1.96 and P-value 0.00<0.05). Perceived usefulness has an impact on Mobile banking adoption because of the value of T-statistics 5.134 >1.96 and P-value 0.00<0.05. The remaining hypotheses fulfil the acceptance criteria for that they are accepted.

7. CONCLUSION AND DISCUSSION

Financial institutions are now rearranging the banking industry of Bangladesh and as such Mobile Banking has come in versatile in the market. This is mostly the stipulation of banking and financial services with the help of mobile devices. This platform is updating to offer highly interactive mobile applications that meet the needs of customers. To carry out the research, the authors have conducted statistical analysis with the help of SPLS. The necessity of investigating the main factors affecting the adoption of new technologies is clear based on numerous studies. In the present study, we found that there is a high degree of positive correlation among the independent and dependent variables. Adoption of M-banking is known as the dependent variable and the factors affecting the adoption of M-banking, including perceived usefulness (PU), perceived ease of use (PEOU), perceived risk (PR), perceived cost (PC), and perceived trust (PT) which were identified as independent variables were tested in the context of Bangladesh. According to the findings, all tested factors had significant effects on the adoption of M-banking. Individuals of Bangladesh adopt or do not adopt M-banking based on these factors. In this regard, the factors exerting the most influence were mostly related

Table 4. Bootstrapping

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (|O/STDEV|)	P Values	Results of Hypotheses
PC>AMB	0.150	0.146	0.068	2.205	0.028	Supported
PEOU>AMB	-0.074	-0.058	0.074	1.003	0.317	Not supported
PR>AMB	0.046	0.029	0.062	0.745	0.456	Not supported
PT>AMB	0.390	0.376	0.080	40860	0.000	Supported
PU>AMB	0.368	0.359	0.072	5.134	0.000	Supported

to conditions for which research centres of banks must prepare necessary infrastructures. To better understand what drives different levels of M-banking adoption across Bangladesh, we did a meta-analysis to explore how different factors affect an individual's behaviour intension to use M-banking using the SmartPLS software. Our study also provides theoretical explanations for these different factors. For instances, perceived trust (0.922) was identified as the most effective factor in the sample. But in Koenig-Lewis's (Karjaluoto, Koenig-Lewis et al. 2010) study trust had no direct effect on M-banking adoption. Basically, as many studies suggest the concern of most people when adopting new technologies is trusting technology for doing jobs. Perceived cost (0.916) was identified as the second-best influential factor in M-banking adoption. In sum, according to the results obtained from the data, people having cell-phones capable of connecting to the internet were more willing to use M-banking services in comparison to others. These cell-phones are not very expensive and people purchase high-tech cell-phones to meet their needs of using the internet for mobile banking. The next factor is perceived usefulness (0.860) by the customers in relation to the potential advantages of the innovation for them. This factor has been investigated in many studies related to the adoption of new technologies. This is consistent with previous literature, which has found perceived usefulness (0.860) to have a strong positive relationship with behavioural intentions(Cheong and Park 2005). Furthermore, perceived usefulness has the strongest direct and combined effect on the intention to use M-banking in(Wessels and Drennan 2010) study. Perceived risk (0.882) has a greater influence on consumers' intention to use M-banking in Bangladesh. It is useful for the bank regarding reducing costs and is useful for the client with respect to 24 hours use of banking services without the need for personal interaction. The last factor affecting the adoption of M-banking in Bangladesh is perceived Ease of Usefulness (0.880). It affects positively on M-banking adoption. People without any training can easily use it without facing any problems which affect positively for the adoption of M-banking in Bangladesh. This result confirms (Curran, Meuter et al. 2007, Wessels and Drennan 2010) studies that demonstrated a positive relationship between perceived ease of use and intention to use. However, different results have been also reported. For example, according to(Karjaluoto, Koenig-Lewis et al. 2010) found in their study on online banking that ease of use had no influence on usage intention whereas perceived usefulness has a significant effect. (Wang, Lin et al. 2006) state that perceived ease of use will depend on an individual's expertise with more experienced users finding it easier to use. In this respect, it is recommended that M-banking software is designed in a way so that they can be learned easily and can be used by different groups of the society in Bangladesh.

Most people in Bangladesh are now using a mobile phone. This makes a good opportunity to increase the level of adoption of mobile banking. We should take advantages of supported factors identified in the study and give attention to the unsupported factors. According to the research findings, certain factors are identified as the most critical while affecting the intention to use M-banking in Bangladesh. The following identified factors must be considered by banks which provide M-banking services to enhance their customer services and increase their customer base:

- M-banking usefulness must be continually improved in order to satisfy customers demand.
- Attention should be given to the risks which that could affect day-to-day transactions performed through mobile devices. Thus, customers trust can be enhanced by eliminating risks.
- The technical infrastructure of M-banking services should be sophisticated and developed to ensure reliable and timely offering of services to customers.
- New functionalities a bank should bush it up to continuously improve customers overall mobile experience and allow them to access most critical information regarding their services.
- To motivate customers to adopt this M-banking services, banks should try to increase the level of service expansion periodically as it should offer versatility in its offerings.

As further works, this research could be expanded in terms of several respondents to include different categories such as age, gender, nationality etc. Open-ended questions may also be added

to a future survey in order to provide a deeper insight into customers' perception toward adoption of M-banking.

So only the banks which focus on the factors and barriers introduced in this study and develop strategies based on their understanding from target customers to get a larger share of the market will succeed. For this purpose, the mobile banking service providers need to ensure offering this service at cheap cost with high security so that customers feel convenient to use it and can rely on and trust this new dimension of banking services in Bangladesh.

Even though this study represents a fruitful attempt over the area of adoption of mobile banking, it is restricted by the number of limitations. For instances, the sample size of this study was not necessarily representative of the Bangladeshi population as it ignored the large rural population. This research also has a significant limitation shared by many studies of consumer adoption in that it only measured behavioural intention, rather than actual behaviour. In addition, this research only explores the factors to influence motivators and inhibitors on behavioural intentions. In terms of future research, a large-scale study with a more representative sample could be conducted to validate the factors of this study and to enhance the generalizability of the research conclusions.

Again, mobile banking services are very new to Bangladeshi consumers and it is still at early stages in Bangladesh. The current target market for mobile banking is relatively small due to the lack of an updated user-friendly infrastructural facility. There is good potential for introducing mobile banking services. This research has served to enhance the understanding of the factors influencing consumers' acceptance of mobile banking in the context of Bangladesh. It has demonstrated that there were multiple factors at work for influencing the consumers' acceptance and that some are more influential than others under given circumstances. The knowledge gained by this study into the motivators and inhibitors of mobile banking is useful for practitioners who aim to maximize consumer adoption of M-banking service in Bangladesh.

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Shumaila Meer Perhiar completed his Ph.D. from Huazhong University of Science and Technology in August 2020.