Factors Influencing the Mobile Banking Adoption in the Banking Sector of Bangladesh

Abu Bakr Emran Salahuddin1, Iftear Ahmed Chowdhury2, Hanif Mahtab1 and Md. Latiful Khabir1

1Department of Management Information Systems, School of Business, Independent University, Dhaka, Bangladesh,
2Department of Management Information Systems, School of Business and Economics, North South University, Dhaka, Bangladesh

Abstract

This study has explored the relationships of trialability, observability, relative advantage, perceived risk, complexity, and compatibility with mobile banking adoption in the context of mobile banking service users residing in a few urban areas of Bangladesh. The study presents a significant evaluation of some essential precursors of users’ intention in using mobile banking services using diffusion of innovation (DOI) theory. A multi-item structured questionnaire was designed to measure all the studied variables. The items were collected from previous researches, which endorsed the fact that the scales were valid and reliable. After conducting a focus group discussion and pilot survey, the measurement instruments were scrutinized and finalized. Data were collected from 338 regular mobile banking users by employing a convenient survey via personal interview technique. Stepwise regression showed that trialability, observability, relative advantage, perceived risk, complexity, and compatibility have statistically significant relationships with mobile banking adoption. The results showed that the trialability or trial period is the most important factor influencing mobile banking adoption. Users want observability or visibility of the service. Relative advantage or value addition to users’ lifestyle reflects the choice of their intention to adopt mobile banking services. Perceived risk ensures “integrity or reliability” which influences users’ intention in adopting any new technological innovations. Compatibility and complexity play key roles in measuring security threats associated and ability to get along with a new innovation. A clear understanding of what stimulates users’ intention in adopting new innovation might encourage or help the mobile banking service provider of Bangladesh to identify what has to be done to create a contented and loyal client base.

Keywords: Relative Advantage; Compatibility; Observability; Complexity; Trialability; Perceived Risk; Mobile Banking Adoption

1. Introduction

Information and communication technology has significantly revolutionized our daily life. It has drastically influenced the business sector even more. Business organizations these days are dependent on electronic platform for their success. Financial organizations are implementing technological solutions for providing better and quality product and services to their clients. Sohail and Shanmugham (2003) have mentioned in their research that, to compete in the competitive environment, Banks are using technological platforms to provide better product and service to enhance user satisfaction and reducing their operational cost. As mobile communication is one of the major types of technological platform due to its availability and convenience using, more and more business organizations are utilizing this platform to run their daily operations. According to a research conducted by Interactive Advertising Bureau Spain (IAB Spain, 2011), 40% of interviewee uses smart phone and there is a significant growth in using internet using mobile phones. As per the records of Association of Mobile Telecom Operators of Bangladesh and Bangladesh Telecommunication regulatory commission (BTRC), the total number
of mobile subscriber has reached to 118 million, among them 40 millions are mobile internet user (BTRC report, September 2014) which is more than one-third of the mobile phone users. Another research conducted by Eriksson has found that 78% of the interviewees are interested to pay their bills through mobile banking. Furthermore, 24% of the interviewees are paying bills and 42% transfer money using mobile phones regularly in Bangladesh (Eriksson, 2014). Hence, there is a significant importance must be given to understand the factors which make customers or users to adopt this new technological platform (Appendix Figure 1).

Business organizations including banking sectors are utilizing this new innovation of mobile-based platform to extend their service and product to the clients. This is known as m-commerce Techwood News. (2014). Banks are using m-commerce as contemporary alternatives to the existing technological platform such as automated teller machine, internet banking, and eftpos (Electronic fund transfer point of sale system). According to Pousttchi and Schurig (2004), electronic banking or e-banking is one the most successful B2C e-commerce. Numerous researches have been conducted in the area of quality of service, customer attitude, satisfaction, and adoption of e-commerce in banking sectors (Moutinho and Smith, 2000; Gerrard and Cunningham, 2003; Karjaluoto et al. 2002; Lichtenstein and Williamson, 2006; Mattila et al. 2003; Yu, 2012; Enders et al. 2006). In this research, the authors are intending to focus on the base line theory of DOI. More precisely this research is aiming to examine the important factors of mobile banking adoption in Bangladesh. Two significantly large sectors of Bangladesh, i.e., Banking and Telecommunication will be benefited by an insight of consumers’ intention and behavior about m-commerce adoption from this research and can utilize mobile technology to enhance their businesses by providing better, timely, and user-friendly product and services.

2. Literature Review

2.1. Theory of DOI

In the studies of predicting the adoption behavior in different area of technology Rogers’ (1983) innovation diffusion theory is considered as one of the most useful models. In his theory of DOI, Rogers (1983) stated how the DOI works in our society. Rogers (1983) argued that, rather than the attributes that are classified independently by experts or change agents, individuals’ perceptions toward the attributes of an innovation enhance the rate of adoption of an innovation. According to the theory of DOI, people gather and organize information about an innovation and based on that information they form their perception about that particular innovation. And according to these perceptions, they decide whether to accept or reject that innovation (Agarawal and Prasad, 1997; Moore and Benbasat, 1991).

In his research, Norazah (2006) stated that in terms of acceptance and use of new innovations, products and services; adoption and diffusion are the two most effectively related procedures. Furthermore, the diffusion process cannot be separated from adoption process, and on the other hand, individual adoption decisions compose the diffusion process (Straub, 2009). As a result, in diffusion and adoption studies; customers’ perception, behavior prediction, user acceptance and innovation adoption is frequently appeared as the core theoretical constructs.

Rogers (2003) argued that adoption process is passing from awareness to acceptance of a product innovation. Hence, Rogers (2003; 1995) believed that five characteristics of an innovation (relative advantage, complexity, compatibility, trialability, and observability) are the most important determinants of adoption rate of an innovation. These five attributes are known as crucial factors concerning acceptance, usage and adoption behavior of latent adopters (Liao and Lu, 2008; Kim and Park, 2011). To introduce an instrument that can be applied to different information system or technology innovation domain and also strong enough to determine the different perception of innovation Moore and Benbasat (1991) expanded Rogers (1983) DOI model. In the process of expansion Moore and Benbasat (1991) kept compatibility, trialability and relative advantage as original and renamed complexity as ease of use to be consistent with Davis’s (1989) TAM. Papies and Clement (2008), Liao and Lu (2008), Vijayasarathy (2004) found compatibility, relative advantage and ease of use to be the major factors in influencing the users to adopt new electronic technologies. Ibrahim and Sohail (2012) found that
relative advantage, compatibility, and observability have a positive impact on mobile banking adoption study conducted in Saudi Arabia. Contrary to the findings in extant literature, trialability and complexity have no significant effect on adoption. Perceived risk has a negative impact on adoption.

2.2. Relative advantage (RA)

According to Moore and Benbasat (1991), relative advantage is considered as a degree to which an innovation is perceived by providing more benefits than its predecessor. Rogers (2003) suggested that the increased efficiency, economic benefits, and enhanced status are the outcomes of the relative advantage of an innovation. According to (Flight et al., 2011), relative advantage has been intended to reflect customers’ perception which all or part of qualities of the future innovation would be able to offer incremental value to its potential user compared to current available options.

Past research has suggested the positive relation exists between the relative advantage of an innovation and the rate of adoption (Moore and Benbasat, 1991). According to previous studies, users tend to adopt the technology when they perceive relative advantage or usefulness of new technology over an old one (McCloskey, 2006; Rogers, 2003). Polatoglu and Ekin (2001), in their study in Turkey, found relative advantage as important factors affecting users’ adoption decisions. As per study conducted by Riquelme and Rios (2010), Lin (2010), Puschel et al. (2010), Cruz et al. (2010), in terms of adoption of innovation relative advantage plays a major role in country such as Singapore, Taiwan, and Brazil.

2.3. Complexity (CX)

According to many research on the mobile technology, the perceived complexity of the innovation is considered to be a major barrier to the users for mobile banking adoption (Au and Kauffman, 2008; Mallat, 2007; Ondrus and Pigneur, 2006). Rogers (2003) describes the complexity as the degree to which an idea or innovation is difficult to understand or use. In view of that, some types of innovations are easy to understand, communicate and even use, whereas some other kinds are more complex and therefore need more time to be adopted. Nor et al. (2010) argued that complexity makes clear required level of physical as well as mental efforts which is necessary by people for adopting of a particular innovation or service.

Furthermore, Cheung et al. (2000) defined complexity of an innovation as the level of difficulty of understanding and using the technology. Many empirical researches suggest that technical complexity is considered to be a major barrier for mobile banking adoption. Complexity in use, technical infrastructure, and design of technology are reported as individual barriers in a number of studies (Vrechoupoulos et al., 2003).

2.4. Compatibility (CO)

Rogers (2003) delineate compatibility concept as the degree to which an innovation or new idea is constant with past experience, existing values and current desires of potential adopters. An innovation that is incompatible with social system norms of society, as well as values, would not be able to be accepted as well as adopted by potential clientele with the speed of innovation that is compatible with existing standards as well as consumer values (Anuar et al., 2012b). Furthermore, Chen et al. (2004) defined compatibility as a level of perceived consistency of a service with its users’ existing values, beliefs, habits and present and previous experiences.

As the adoption rate is highly boosted by the conformance with users’ lifestyle, compatibility is considered to be a very important feature for innovation (Rogers 2003). Ndubisi and Sinti (2006) found that the compatibility is considered to be a very important factor in terms of determining consumers’ attitude toward internet banking adoption in Malaysia. Furthermore, compatibility has also been found influential in the adoption of the virtual store (Chen et al., 2004), m-payment (Chen, 2008), and mobile banking (Koenig-Lewis et al., 2010; Lin, 2011). Furthermore, in their research Agarwal and Prasad (1998) found that the probability of adoption of an innovation is high when it is compatible with individual’s value and social system.
2.5. Observability (OB)

According to Moore and Benbasat (1991), observability of an innovation is defined into two part; the visibility and the result demonstrability of a particular innovation. So in terms of mobile banking, observability is defined as the accessibility of the banking services at any time and from any location without any delay or queue, and seeing the effect of mobile banking transactions immediately. Rathod (2012) explains the mobile device provides wide opportunity in dispersal of financial services to the unbanked and banked customers of the country because of its feature of any time and anywhere access. Lee et al. (2011) point that perceived observability has significant positive influence on usage intention e-learning service among Taiwanese business employees. In addition, Wei and Zhang (2008) revealed that Chinese rural respondents who have further optimistic insight relating to observability of services of mobile phone would adopt it faster.

2.6. Trialability (TA)

Trialability defines the ability to experiment the new technology before adoption. If the innovation is allowed to be experimented by the potential users, they will feel more comfortable with that technology and their adoption rate will also increase (Agarwal and Prasad, 1998; Rogers, 2003). Tan and Teo (2000) also supported the argument and said that if customers are allowed to experiment the innovation, it will reduce certain unknown fears, and lead to adoption. Carayannis and Turner, (2006) pointed that trialability seems to be an opportunity in which, a service or innovation could be applied by potential consumers or experimented with on a trial basis. Importantly, these opportunities in which latent adopters are able to have prior experience with new idea, innovation or product would diminish their fears as well as uncertainties. Besides, as a new innovation or idea is trialable by possible end users, the hesitation or vagueness about it would dispel (Rogers, 2003). Hence, basic self-reliance for using a service or innovation for anxious users will be provided (Gerrard and Cunningham, 2003).

2.7. Perceived risk (PR)

Perceived risk refers to the level of risk associated to the use of new technology (Ram and Sheth, 1989). The uncertainty associated with the level of inconsistency between customers’ expectation and the real behavior of the technology, and not succeeding to deliver its anticipated outcome arise the risk in consumers’ mind (Chen, 2008; Koenig-Lewis et al., 2010; Lee et al., 2007). Because of the privacy and security issues, the perceive risk is even higher in mobile banking (Luarn and Lin, 2005). Aggarwal and Kaur (2012) in their paper states that the major concern of all the customers is security and privacy related to mobile banking Therefore, the perceived risk is possibly has negative impact on mobile banking adoption.

2.8. Mobile banking adoption (MBA)

In general, adoption is refers to a decision of complete utilization of an innovation (Rogers 2003). In different studies, adoption has defined in many other ways such as; implementation, usage, utilization, or satisfaction of a particular innovation. In this research, the main aim is to investigate the influential factors of mobile banking adoption so satisfaction would be the most perfect measure of adoption. Past studies suggest that in the context of IT success satisfaction has often been used as the dependent variable (DeLone and McLean, 1992; 2003; Montazemi, 1988; Raymond, 1990). The choice of satisfaction as a single parameter for satisfaction has two reasons. First, it poses a very high degree of face validity. It is very difficult to deny the success of a system where users say that they like it. Second, it is most commonly used as a success parameter (DeLone and McLean, 1992; 2003; Liu and Guo, 2008; Mahmood et al., 2000; Zviran and Ehrlich, 2003) and post-adoption measure of m-services (Park et al., 2011).
3. Hypothesis

H$_1$: The relative advantage of mobile banking system will positively influence the mobile banking adoption.

H$_2$: The complexity of mobile banking system will negatively influence the mobile banking adoption.

H$_3$: The compatibility of the mobile banking system will positively influence the mobile banking adoption.

H$_4$: The observability of the mobile banking system will positively influence the mobile banking adoption.

H$_5$: The trialability of the mobile banking system will positively influence the mobile banking adoption.

H$_6$: The perceived risk of the mobile banking system will negatively influence the mobile banking adoption.

4. Conceptual Framework

Based on the abovementioned hypotheses following conceptual framework is developed.

5. Methodology

5.1. Focus group discussion

A group of 12 individuals were selected and invited to a focus group from different background including graduate students, service holders, businessperson having mobile banking exposure. The meeting was conducted by one of the authors for about 1½ h. The participants were briefed about the purpose and the factors that would affect mobile banking adoption from the previous literature. In the meeting, the contributors were requested to evaluate the variables from their mobile banking experiences. The results of the discussion were used to improve survey instrument design.

5.2. Measurement instruments

The survey instruments were specifically developed for this study from relevant literatures and results from focus group discussion. A pilot study was also conducted among 25 randomly selected respondents who have mobile banking exposure for the refinement of the instruments. The questionnaire will be designed in two sections. The first part of the questionnaire is designed to capture demographic characteristics of respondents and usage patterns in mobile banking. The second part questionnaire was comprised seven sections meant for seven variables where the researchers used five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) borrowed from previous researchers. The operational definition of each construct/variable is presented with its originally reported reliability in Table 1.

5.3. Sampling and data collection

The researchers employed the non-probability convenience sampling. For data collection purpose, the researchers employed survey via personal interview. Structured questionnaires were distributed among 400 (338 questionnaires were usable) regular and potential mobile banking users at different locations in Dhaka, Gazipur, Narsingdi and Munshiganj district in Bangladesh. As per the surveyed data most of
the mobile banking users fall in between 21 and 30 years of age almost 73%. Among the respondents 68.3% were male and 31.7% were female. 36.4% of our respondents are using mobile baking for the last 3 years and 31.7% are newly adopted users within last 6 months. In the income group, maximum respondents fall under middle-income group. 91.7% of our respondents have educational qualification of graduate and more.

5.4. Data analysis

The researchers have employed both descriptive as well as inferential statistics. Correlation analysis and stepwise regression have been carried out using SPSS version 17.0 and Partial least square methods using smart partial least square modeling (PLS) version 2.0.

6. Results

6.1. Descriptive statistics and reliability coefficients

Descriptive statistics and reliability coefficients of the studied variables are presented in Table 2. The range of Cronbach alphas of all the scales was 0.824-0.515; which shows that the reliabilities of the constructs of relative advantage, compatibility, perceived risk, trialability, and mobile banking adoption used in this study found to be well above the standard set by Nunnally (1978). Observability and complexity constructs are also reliable. Mean scores of all the variables measured on a five-point Likert scale found to have a range of 3.75-3.02, and the corresponding standard deviations were ranging from...
1.03 to 0.64. These mean scores pointing toward the respondents’ assessment of relative advantage, compatibility, perceived risk, trialability, observability, complexity, and mobile banking adoption is quite high.

6.2. Correlation analysis

A correlation analysis was performed on all the variables for two purposes. The first was to check the presence of multicollinearity, which is revealed when the inter-correlation between explanatory variables exceeds 0.8 (Berry and Feldmann, 1985). In this study, no such bivariate relationship found to exceeds 0.8. Moreover, the correlation analysis shows the relationships between independent and dependent variables. The bivariate correlation method develops two-tailed tests (Positive or negative) of statistical significance at two different levels - highly significant (P < 0.01) and significant (P < 0.05). Correlations matrix is presented in Table 3 supports most of the hypothesized positive relationships among the independent variables and dependent variable with high statistical significance (P < 0.01) without complexity and perceived risk. Perceived risk has a week but significant (P < 0.05) relation with the dependent variable, whereas complexity has a weak negative but high statistically significant relation with the dependent variable.

6.3. Stepwise regression analysis

Stepwise regression analysis was done to assess the perceptive relationship of each independent variable with the dependent variable. In the Model 1, it is observed that trialability (IV) has explained 32.9% of the dependent variable Mobile Banking Adoption (DV). The weighted R² for regression of Model 2 comprised trialability (IV), observability (IV), and mobile banking adoption (DV) was 0.536. Observability has made 0.207 or 20.7% improvement in the model in terms of explaining the
variation or change in mobile banking adoption. In Model 3, weighted $R^2$ was 0.621 and new addition was relative advantage (IV) has made 0.085 or 8.5% improvement in the model in explaining the variation or change in mobile banking adoption. The weighted $R^2$ for regression of Model 4 comprised trialability (IV), observability (IV), relative advantage (IV), perceived risk (IV), and mobile banking adoption (DV) were 0.636. Perceived risk has only made 0.015 or 1.5% improvement in the model. Likewise, in Models 5 and 6, complexity (IV) and compatibility (IV) has been added. The weighted $R^2$ value was observed 0.660 and 0.665 in the order which has merely made 2.4% and 0.5% improvement in the model in explaining the variation or change in mobile banking adoption, respectively. The results are included in Table 4.

The results also indicate all the models have high statistical significance (Model 1: $F = 164.534$, $P = 0.000$; Model 2: $F = 149.313$, $P = 0.000$; Model 3: $F = 75.071$, $P = 0.000$; Model 4: $F = 13.540$, $P = 0.000$; Model 5: $F = 23.659$, $P = 0.000$; and Model 4: $F = 5.418$, $P = 0.021$). All the variables were found to have high statistically significant (*$P < 0.01$) relationship with mobile banking adoption except compatibility, which was found to have statistically significant (*$P < 0.05$) relationship with the dependent variable. The above discussed results have supported the first 5 hypotheses except $H_6$: Perceived risk (IV), which is found to have positive instead of negative statistically significant (*$P < 0.05$) relationship with the mobile banking adoption (DV).

Equation 1 is the regression equation of the proposed model is as follows:

$$Y=\alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \varepsilon$$  \hspace{1cm} (1)

Where, $Y = \text{MBA}$ (dependent variable)

$\alpha = \text{intercept}$

$\varepsilon = \text{error term}$

$\beta_1 \ldots \beta_6 = \text{coefficients}$

$X_1 \ldots X_n = \text{independent variables}$

$X_1 = \text{Trialability}$

$X_2 = \text{Observability}$

$X_3 = \text{Relative Advantage}$

$X_4 = \text{Perceived Risk}$

$X_5 = \text{Complexity}$

$X_6 = \text{Compatibility}$

Populating the results obtained from the stepwise multiple regression, equation 2 is derived as:

$$Y=-0.305+0.312 \text{(trialability)}+0.303 \text{(observability)}+0.313 \text{(relative advantage)}+0.113 \text{(perceived risk)}-0.100 \text{(complexity)}+0.112 \text{(compatibility)}+0.188$$  \hspace{1cm} (2)

### Table 4: Stepwise regression on mobile banking adoption

<table>
<thead>
<tr>
<th>Model</th>
<th>$R$</th>
<th>$R^2$</th>
<th>Adjusted $R^2$</th>
<th>Standard error of the estimate</th>
<th>$R^2$ change</th>
<th>$F$ change</th>
<th>df1</th>
<th>df2</th>
<th>Significant $F$ change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0.573$^a$</td>
<td>0.329</td>
<td>0.327</td>
<td>0.57130</td>
<td>0.329</td>
<td>164.534</td>
<td>1</td>
<td>336</td>
<td>0.000</td>
</tr>
<tr>
<td>2</td>
<td>0.732$^a$</td>
<td>0.536</td>
<td>0.533</td>
<td>0.47585</td>
<td>0.207</td>
<td>149.313</td>
<td>1</td>
<td>335</td>
<td>0.000</td>
</tr>
<tr>
<td>3</td>
<td>0.788$^a$</td>
<td>0.621</td>
<td>0.617</td>
<td>0.43062</td>
<td>0.085</td>
<td>75.071</td>
<td>1</td>
<td>334</td>
<td>0.000</td>
</tr>
<tr>
<td>4</td>
<td>0.797$^a$</td>
<td>0.636</td>
<td>0.631</td>
<td>0.42276</td>
<td>0.015</td>
<td>13.540</td>
<td>1</td>
<td>333</td>
<td>0.000</td>
</tr>
<tr>
<td>5</td>
<td>0.812$^a$</td>
<td>0.660</td>
<td>0.655</td>
<td>0.40907</td>
<td>0.024</td>
<td>23.659</td>
<td>1</td>
<td>332</td>
<td>0.000</td>
</tr>
<tr>
<td>6</td>
<td>0.816$^a$</td>
<td>0.665</td>
<td>0.659</td>
<td>0.40638</td>
<td>0.005</td>
<td>5.418</td>
<td>1</td>
<td>331</td>
<td>0.021</td>
</tr>
</tbody>
</table>

$^a$Predictors: (Constant), trialability, $^a$Predictors: (Constant), trialability, observability, $^a$Predictors: (Constant), trialability, observability, relative advantage, $^a$Predictors: (Constant), trialability, observability, relative advantage, perceived risk, $^a$Predictors: (Constant), trialability, observability, relative advantage, perceived risk, complexity, $^a$Predictors: (Constant), trialability, observability, relative advantage, perceived risk, complexity, compatibility. $n=338$
7. Discussion

This study is significant for several reasons. First, as per the knowledge of the researchers, in Bangladesh no such study has been done previously to assess user’s intentions to mobile banking adoption using DOI theory. Second, mobile banking service is comparatively a new wing in the banking sector of Bangladesh; this study denotes an important insight of mobile-based financial services and its contributing factors. Third, inclusion of perceived risk along with the already established DOI model makes this study a unique endeavor in the context of mobile banking users of Bangladesh. The finding in this study has noteworthy relevance with the prior studies conducted in different countries in evaluating the technological innovations.

Stepwise regression has shown that factors: Trialability, observability, relative advantage, perceived risk, complexity, and compatibility have statistically significant relationship with mobile banking adoption. Out of them, trialability has the most impact on the dependent variable. As new technology reveals new innovation, people want to see and test the new model before adopting it. Although the users’ assessment about a new technology after trial can be erroneous or biased based on prior knowledge, rumor or experience, however the mobile banking service provider should consider that the trial period must be made available. If the mobile banking service is assessed and tried, the user would eventually see the benefits and adopt the mobile banking with ease.

The second most important factor facilitating users’ intention to adopt mobile banking is found in this study is observability. Visibility is people want to see their transactions go through and get notified effectively. These two factors are the most influential and explain the users’ intention to adopt mobile banking services.

In addition, relative advantage also plays an important role by portraying the users’ expression for adopting mobile banking services by evaluating the advantages gained by the mobile banking in terms of time and value. The next in the line is the risk; perceived risk is the contributing factor to deal with the security and reliability of the transactions performed over mobile network. The integrity and deliverability issues of an innovation cloud the mind of the users’ and their trust in the newly developed system.

Any new innovative technology would require a phase of learning before it can be accepted or adopted appropriately. The complexity of operating a newly developed technology plays a negative role forming the intention of users’ adoption of mobile banking. In this study, user reluctance to use a complex system is also an important factor. Compatibility is referred as the factor that compatible with the perceived consistency of the users’ existing values, habits, believes, etc. Significance of the compatibility in relation to adoption of a new technology is essential for users to accept the mobile banking with their lifestyle.

Therefore, a reasonable interpretation of this study before adopting the new technology is; these users’ want to have a trial period and observe its potential by ensuring the completeness or integrity and reliability of the service which goes well with their lifestyle and increases value of the service itself. However, more research needed to be conducted on extensive scale to cover the population by quota sampling and including the rural areas.

The findings of this study have to be understood considering some limitations. First, the data collection was done using convenient sampling and limited to mostly urban areas. As mobile-based services are also available to the rural areas and especially considering the situation of Bangladesh, a very large segment of mobile-based financial transaction occurs between urban and rural areas. Many people come and stay in the urban areas for their work and send money back to rural villages to their families on regular basis. These portions are also needed to be covered to understand the full extent of mobile banking adoption in Bangladesh. For them, using mobile banking services is necessity not a luxury anymore. Hence, we might see more complete picture in future studies covering the rural sector as well. Second, there are a significant number of potential mobile banking users; their opinions are also needed to be evaluated and compared. Finally, other additional factors such as trust, usefulness, ease of use, cost, and social influence could be used to make the conceptual framework more robust for further research purposes. In future, the authors intend to incorporate some of the abovementioned variables in the conceptual framework to do structural equation modeling or PLS Figure 1.
Figure 1: Partial least square (Ringle et al., 2005)

References


Vijayasarathy, L.R. (2004), Predicting consumer intentions to use on-line shopping: The case for an augmented technology acceptance model. Information and Management, 41(6), 747-762.


Appendix

Appendix Figure

Appendix Figure 1: Bangladesh telecommunication regulatory commission report on mobile internet user statistics (September, 2014)