Customer’s Attitude toward Mobile Banking Usage: A Case Study in Bangladesh

Md. AL AMIN1, Nahida SULTANA2, Trina SAHA3, S.M. Nazrul ISLAM4, Md. Abul KASHEM5

Received: November 05, 2020 Revised: December 30, 2020 Accepted: January 08, 2021

Abstract

Mobile banking brings about a progressive change in the field of banking sectors in Bangladesh. To create a sustainable banking environment, technological implementation is important. As a part of this, many organizations as well as modern banks propelled mobile banking systems in Bangladesh. The customers’ attitudes towards mobile banking are fascinating in Bangladesh. So, it is important for mobile banking authority to know what factors influence customers’ positive attitude towards mobile banking usage and whether they are facing problems in using mobile banking. To evaluate the customers’ attitude toward mobile banking usage in Bangladesh is the main objective of this study. People who use mobile banking have been considered for the study. Respondents were reached out based on their online activities. Around 400 questionnaires have been sent to respondents, but only 200 were returned with responses. A quantitative research design was used for this study. As regards statistical analysis tools, descriptive statistics, factor analysis, and regression analysis have been adopted for analyzing the research study. The results revealed that usage benefits, shopping benefits, and psychological factors influence customers’ positive attitude toward mobile banking usage in Bangladesh. Besides, some problems with mobile banking usage are identified by the respondents.

Keyword: Mobile Banking Usage, Customer Attitudes, Sustainability, Perceived Advantage, Bangladesh

JEL Classification Code: M10, M14, M15, M19

1. Introduction

The recent development of electronic banking based on wireless Internet is called mobile banking. By the integration of the two most important advancements of technology such as the Internet and mobile phone, a new feature like mobile data services are enabled and the banking industry can operate wireless-based commercial functions (Barnes & Corbitt, 2003). Mobile phones have turned into vital mechanisms for day-to-day use, which open a great way to the development of banking activities to reach the unbanked population through mobile banking. The basic financial services are available to low pay people that reduces time and closes the gap between local retail bank offices through mobile banking (CGAP, 2006). Mobile banking can be considered a method for delivering financial services over ICT, which enhances the selection of mobile services in even lower livelihoods nations (Anderson, 2010).

Another feature of mobile banking are mobile financial services that integrate traditional banking with mobile networks allowing the users of mobile phones to perform traditional and modern banking activities. Mobile banking
demonstrates the capacity to make deposit money, obtain and transfer cash from mobile account routinely and that services are empowered by the utilization of specialist banks, which allow holders of mobile account to execute these operations at autonomous areas outside the bank offices (BB, 2012). The tremendous development of mobile phones throughout the world has created an opportunity for providing financial services and performing social activities by using mobile devices. Today’s huge competition in the banking sectors forces banks to rethink and discover alternative products to gain sustainable competitive advantages; mobile banking is one of them. Mobile banking likewise turns away phony exercises of banking that makes to some extent new financial connection between banks and their clients (Parvin, 2013).

Currently, different banks in Bangladesh provide different mobile banking services. Among them, the most popular are Bkash operated by Brac Bank Limited, Ucash operated by United Commercial Bank Limited, Rocket operated by Dutch Bangla Bank Limited, and Nagad operated by Bangladesh Dak Bivag. The primary objective of this research is to analyze the customer’s attitude toward mobile banking usage in Bangladesh. Specific objectives include the discovery of perceived advantages of mobile banking usage, discovery of perceived disadvantages of using mobile banking, and scrutinizing of the psychological and attitudinal factors of customers for mobile banking usage.

2. Objectives of the Research

The prime objective of this research is to analyze the customer’s attitude towards mobile banking in Bangladesh. The study has some explicit objectives. The explicit objectives are

- To identify the perceived advantages of using mobile banking in Bangladesh.
- To identify the perceived disadvantages of using mobile banking.
- To explore how the convenience and psychological factors influence mobile banking usage in Bangladesh.

3. The Implication of the Research

The literature is wanting regarding the customer’s attitude toward mobile banking usage as a technological adoption to sustainable banking in Bangladesh. Besides, customer’ attitude toward mobile banking usage has not yet been widely studied in a developing country like Bangladesh.

This study will provide an idea regarding the bank’s customer perception about mobile banking that will help the banks in knowing both the effectiveness of the technological implementation toward sustainable banking and client’s satisfaction. Along with this, the study will show implications for the banks to fix problems in existing mobile banking through analyzing perceived disadvantages faced by customers.

4. Literature Review

Mobile banking can be considered as one of the added values and vital services of mobile. Arcrafs’ recent research documents change in mobile technology like mobile network and creative features of mobile device Internet. It has propelled the hypothetical model of advancement in support of build up a client-driven examination of m-banking offer. His article proceeds to examine basic components in the dispersion of mobile banking and investigates causes of disappointment and therewithal possibilities of achievement (Ayadi, 2005).

Available point of services, cost of services, security of services, and social impacts are important and have a positive impact on the user’s attitudes toward mobile banking usage. Illiterate, poor, and young people are extensively using mobile financial services (Johara, 2014). The factors such as social influence, compatibility, perceived ease-of-use and trust play an important role in affecting the intention to use mobile banking (Le et al., 2020). Besides, the perceived ease-of-use, trust, social norms, and innovation of services of banking greatly influence people to accept and use mobile banking (Ngan & Khoi, 2020).

There are around 160 million people in Bangladesh, of which only 13% have a bank account while over 95% are cell phone clients (Islam, 2013). Mobile banking is making people’s life more flexible and they don’t need to outside to conduct financial transactions like banking (Ahmed et al., 2012). Schofield and Kubin (2002) said that the media transmission industry around the world has combined to bring together PCs and cell phone gadgets. The outsourcing of certain vital activities to mobile administrators merit further consideration, as much as the operators of mobile communication can, under explicit conditions, be profoundly associated with banking through mobile (Weber & Darbellay, 2010).

A suitable banking condition is viewed as a key element just as an empowering influence of financial turn of events. Banking through mobile is regarded as a substitute and new way to get services of the bank via a media through which the client communicates and performs bank related activities such as inquiring about the balance of the individual account, getting the current account status, moving a balance from one place to another and exchanging different type of stocks (Kim et al., 2009; Luo et al., 2010). Today, banking activity based on the Internet is getting more popular than traditional banking because of its several merits such as ease of operations, online financial activities and the fact that customers don’t need to go outside bank branches for performing banking activities (Alam et al., 2010).
Kabir (2013) notes that usage of mobile banking is negatively influenced by several risks such as security risk, performance risk, time risk, social and financial risk, while the intention to take up mobile banking services is positively influenced by the ability, integrity, perceived ease-of-use, relative cost, benevolence, perceived usefulness, and time advantages. The tremendous use of the mobile phone has accelerated the demand for mobile banking services, increasing new banks, microcredit institutions, and software organizations, and services provider to offer these new services with new arrangements of items and applications developed to increase their customers’ reach, enhance client retention, improve efficiency in operation, growing the market share and provide new job advantages (Shaikh, 2015). Bank customers get different financial benefits by using mobile banking in Bangladesh. Nowadays people can deposit money on their mobile phone and, thus, get interested in the bank. By using mobile banking, users can control expenses and they may have to pay little charge for balance transfer from one place to another place.

According to Alam et al. (2013), most of the users of mobile banking think that it saves time, costs less than traditional banking. In this study, 64% of respondents believe that DBBL plays a vital role in promoting mobile banking, where only 28% mentioned that Bkash plays the same role in promoting mobile banking. Chian-Son (2012) has uncovered that the person’s desire to receive mobile banking is essentially impacted by societal component, financial cost, perceived credibility, and execution anticipation in the request for their affecting strength. For Hasan et al. (2010), electronic banking encourages the banking sector of Bangladesh in a variety of ways; bank customers in Bangladesh have a shortage of ideas with the issue of e-banking provided by banking sectors. Mobile banking spares time compared to traditional banking, and most of the customers use mobile banking for the purpose of getting mobile balance to recharge service and it is less costly than usage banking. The possibility of mobile banking is a lofty idea, in spite of the fact that the idea is new in Bangladesh (Ahmad et al., 2012).

Sarker and Wells (2003) state that the only single access requirement or obstruction to the resultant mobile banking will be the cell phone. However, overall market infiltration of reasonable cellular devices and developing system administration dissemination makes this multifaceted nature completely settled for setting a firm platform for mobile banking. Mobile banking service acceptance depends on several factors such as service quality, perceived usefulness, perceived ease-of-use, safety in use, and social factors (Navavongsathian et al., 2020).

### 4.1. Usage Benefits

It is presently accepted that the cell phone as a channel for service utilization grants gigantic potentiality in the field of banking industries (Laukkanen & Lauronen, 2005). Past investigations demonstrate the variables adding to banking of mobile convenience, administration paying little time and spot, protection and save in time and effort (Laukkanen, 2007). According to Karjaluoto et al. (2010) the perceived usefulness, congruence and risk are vital factors in adopting mobile banking activities. Congruence is a significant precursor for perceived ease-of-use, perceived usefulness, and credibility. In addition, credibility and trust play a critical role in diminishing the overall perceived danger of using mobile banking. Usage benefits include security, time-saving, ease in carrying, etc.

**H1:** Usage benefits significantly influence the customers’ positive view toward mobile banking usage.

### 4.2. Shopping Benefits

Cruz and Laukkanen (2010) are of the view that participation and service fees for receiving mobile services, for example, banking, special offers, and benefit of shopping have a significant impact on user acceptance, and therefore, it is inferred that cost negatively affects the selection of mobile banking services. Mobile banking users enable to shop from the different places through their mobile banking wallets. Shopping benefits might include shopping from home and abroad.

**H2:** Shopping benefits significantly influence the customers’ positive view toward mobile banking usage.

### 4.3. Convenience

Thought of convenience for clients is long-standing, especially in the retailing and client direct artistic works (Anderson, 1972 and Kelley, 1958). According to Ali, (2020) banks receiving appropriate information about their customers gain operational productivity and supportability objectives as regards green production network. Correspondingly, there is an assertion of creating buyer interest for convenience achieved by money-related change, an innovative progression and heightening contention in business conditions (Seiders et al., 2000; Seiders et al., 2007; Berry et al., 2002). At the point when clients’ buying power expands, transaction mode is protected and simple to utilize, which may offer convenience. Convenience factors might include safe transactions, ease-to-use, etc.

**H3:** Convenience significantly influences the customers’ positive view toward plastic money.

### 4.4. Psychological Factors

For the most part, needs have been imagined as a conveyance for the examination of human motivation
(Oliver, 1997). To lay it out simply, individuals consistently try to achieve a state of security, in other words, homeostasis. This psychological state is vexed at the point when they are made mindful of a need. Along these lines, requirements and the need to fulfill them help to make the person’s motivations with respect to a certain function (Goossens, 2000). Customers’ psychology toward mobile banking can be regarded as how it adds value, whether it is fashionable or prestigious etc.

**H4**: Psychological factors significantly influence customers’ positive view toward mobile banking usage.

5. **Research Methodology**

A random sampling method has been used for selecting respondents. People who use mobile banking have been considered for the study. Respondents were reached out based on their online activities. A structured questionnaire has been designed for data collection. Around 400 questionnaires have been sent to respondents, but only 200 completed were returned, a response rate of 50%. The objective of the study is to analyze the customers’ attitude toward mobile banking usage as a technological adoption in sustainable banking in Bangladesh. A quantitative research design fits this study. As statistical analysis tools, descriptive statistics, factor analysis, and regression analysis have been adopted.

6. **Analysis of Data**

6.1. **Respondents demographic profile**

People with diverse demographic profiles took part in this research to validate the data collection. Among the 200 respondents, 60% were male and 40% female. The largest group was people aged between 18 and 25, and between 26 and 35; only 10.5% of respondents were elderly. Such result indicates that mobile banking usage is most preferred by young people in Bangladesh. Another important fact is that mobile banking usage is more prevalent among lower-middle class people. There were about 73% of respondents in the study whose monthly income was below 25,000 BDT taka.

Table 1 shows that the most commonly used mobile banking network among the respondents is Bkash (83%), then Rocket (10.5%), Nagad (3%), Ucash (1%), and others mobile banking (2.5%). Day by day the mobile banking usage is increasing in Bangladesh because people prefer not to go in physical bank branches.

6.2. **Factors Analysis**

The objective of the factor analysis is to corroborate our proposition in constructing these dimensions and the cohesion of the elements making them. Factor analysis would help our proposition through a couple of measures. The estimation strategy utilized in the examination was the R type factor investigation. The result of the analysis pointed to an acceptable overall fitness of factor analysis. To check for excessive correlations with a value equal to 0.859 (suggested estimation of KMO should be above 0.5) Table 2 shows the Kaiser–Meyer–Olkin measure of sampling adequacy that was used. This reveals the existence of little associations between variables.

Lastly, the estimated design matrix appeared in Table 3, where items are distributed between 15 dimensions.

<table>
<thead>
<tr>
<th>Types of mobile banking usage</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Valid</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bkash</td>
<td>166</td>
<td>83.0</td>
<td>83.0</td>
<td>83.0</td>
</tr>
<tr>
<td>Ucash</td>
<td>2</td>
<td>1.0</td>
<td>1.0</td>
<td>84.0</td>
</tr>
<tr>
<td>Nagad</td>
<td>6</td>
<td>3.0</td>
<td>3.0</td>
<td>87.0</td>
</tr>
<tr>
<td>Rocket</td>
<td>21</td>
<td>10.5</td>
<td>10.5</td>
<td>97.5</td>
</tr>
<tr>
<td>Others</td>
<td>5</td>
<td>2.5</td>
<td>2.5</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>200</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>KMO and Bartlett's Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser-Meyer-Oklin Measure</td>
</tr>
<tr>
<td>Test of Sampling Adequacy</td>
</tr>
<tr>
<td>Bartlett's Test of Sphericity</td>
</tr>
<tr>
<td>Approx. Chi-Square</td>
</tr>
<tr>
<td>Df</td>
</tr>
<tr>
<td>Sig.</td>
</tr>
</tbody>
</table>
From Table 3, it is cleared that factor 1 has the highest coefficient for variable v2 (convenient to use), v1 (available at any time), v13 (easier to control account), v6 (saves time of banking transaction), and v10 (easy to carry). These factors can be considered as usage benefits of using mobile banking. At the same time, factor 2 has the highest coefficient for variable v4 (reasonable cash-out rate), v3 (ensure more security), v14 (safeguard to customer details), v15 (cash out possible from any ATM). These factors can be regarded as convenient factors to use mobile banking. Similarly, factor 3 has the highest coefficient for variable v8 (shopping benefit to the customer), v9 (provide cash back during special purchase), v12 (shopping abroad). These factors can be considered as shopping benefits of using mobile banking.

### 6.3. Hypothesis Testing

The model is assessed through a regression model and shows which measurements essentially anticipate the customers’ positive view on mobile banking in Bangladesh. All the independent variables were regressed by the conceptual research (usage benefits, shopping benefits, convenience factor, and psychological factor) on customers’ positive view. The regression coefficients are shown in Table 4.

Dependent variable: Positive attitude toward Mobile Banking Usage.

### Table 4: Results of test of Hypotheses between Dependent and Independent Variables

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>T value</th>
<th>F</th>
<th>P value</th>
<th>Beta</th>
<th>R2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Usage benefits</td>
<td>7.079</td>
<td>71.032</td>
<td>0.000</td>
<td>0.476</td>
<td>0.264</td>
</tr>
<tr>
<td>Shopping benefits</td>
<td>−2.149</td>
<td>44.785</td>
<td>0.033</td>
<td>−0.141</td>
<td>0.313</td>
</tr>
<tr>
<td>Convenience</td>
<td>−1.492</td>
<td>35.446</td>
<td>0.137</td>
<td>−0.999</td>
<td>0.318</td>
</tr>
<tr>
<td>Psychological factors</td>
<td>4.096</td>
<td>31.944</td>
<td>0.000</td>
<td>0.263</td>
<td>0.328</td>
</tr>
</tbody>
</table>

We can reject null hypotheses when the P-values are <.05. According to the regression co-efficient table, P-values of usage benefits, shopping benefits, and psychological factors are accepted. But according to the data of Beta, it is obvious that shopping benefits have opposite contribution toward Mobile Banking Usage. This means the fewer shopping benefits significantly influence Mobile Banking Usage.

### 7. Disadvantages of Using Mobile Banking

All the dimensions mean and standard deviation are shown in Table 6. All the dimensions are measured on a 5-point Likert scale (1 = strongly agree to 5 = strongly disagree).
Table 6: Disadvantages of using Mobile Banking

<table>
<thead>
<tr>
<th>Descriptive Statistics of mobile banking</th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Few Vendors</td>
<td>200</td>
<td>1.00</td>
<td>5.00</td>
<td>2.5150</td>
<td>1.00740</td>
</tr>
<tr>
<td>2. High Security threats</td>
<td>200</td>
<td>1.00</td>
<td>5.00</td>
<td>2.3850</td>
<td>1.04990</td>
</tr>
<tr>
<td>3. Getting Fake SMS</td>
<td>200</td>
<td>1.00</td>
<td>5.00</td>
<td>2.3650</td>
<td>1.12164</td>
</tr>
<tr>
<td>4. Higher cash-out charge for user</td>
<td>200</td>
<td>1.00</td>
<td>5.00</td>
<td>2.3100</td>
<td>1.13594</td>
</tr>
<tr>
<td>5. Mounting Number of frauds</td>
<td>200</td>
<td>1.00</td>
<td>5.00</td>
<td>2.1850</td>
<td>0.96198</td>
</tr>
<tr>
<td>6. Technological complications</td>
<td>200</td>
<td>1.00</td>
<td>5.00</td>
<td>2.4200</td>
<td>0.94768</td>
</tr>
<tr>
<td>7. Fake calls for getting Account Information (PIN and Password)</td>
<td>200</td>
<td>1.00</td>
<td>5.00</td>
<td>1.9750</td>
<td>1.04875</td>
</tr>
<tr>
<td>8. Scarcity of Banking agent</td>
<td>200</td>
<td>1.00</td>
<td>5.00</td>
<td>2.4150</td>
<td>1.01386</td>
</tr>
<tr>
<td>9. Incompatible to use all mobile</td>
<td>200</td>
<td>1.00</td>
<td>5.00</td>
<td>2.6900</td>
<td>1.12259</td>
</tr>
</tbody>
</table>

Table 6 shows the descriptive statistics where the highest perceived dimension is incompatibility to use mobile banking in all mobile (mean = 2.690) and the lower dimension is fake calls for getting account information such as account PIN and password (mean = 1.975). The result indicates that incompatibility to use all mobile, few vendors, and technological complications are highly problematic to respondents for using mobile banking where all other dimensions are moderately important to the sample. Another issue is the debate among respondents with reference to higher cash-out charge for the user, getting fake SMS, where the values are higher in standard deviation than other dimensions.

8. Finding and Discussion

The study shows that the larger proportion of mobile banking users are young people in Bangladesh age range from 18–25 and 26–35 where only 10.5% of respondents were elderly. The study also shows that mobile banking usage is more prevalent among lower-middle-class people in Bangladesh. There was about 73% respondent in the study whose monthly income was below 25,000 BDT taka. Most of the respondents (83%) are using Bkash mobile banking network. The perceived advantages of mobile banking identified have been analyzed to evaluate the customer’s attitudes toward mobile banking usage. There were three dimensions identified through factors analysis. These three dimensions have been labeled as three benefits of mobile banking usage in Bangladesh, namely, usage benefits, shopping benefits, and convenience benefits. Along with the three benefits of mobile banking, psychological factors were analyzed through hypothesis testing. Psychological factors such as prestige, adding value, easing complex transactions, and fashionable were also examined. About 72% of respondents believed that usage of mobile baking is prestigious, 72% of respondents believed that mobile banking adds value, 82.5% of respondents agreed that mobile
banking simplifies complex transactions, where 70.5% of people believed that mobile banking is fashionable.

For validating the research model, the experimental test has been conducted using the survey. To show whether dimensional items have been stacking together and bolster the study premise, factor analysis was used. The results were positive and all the dimensions are significant in forecasting the customer’s attitude toward mobile banking usage. For hypothesis testing, regression analysis was undertaken. The study shows that all variables were significant except for convenience benefits. Usage benefits and psychological factors significantly influence customers’ positive view toward mobile banking usage, where shopping benefit has a less significant influence on customers’ positive view toward mobile banking usage. The study also shows that 90.5% of the respondents believe that they will keep on utilizing it later on and they do have a positive attitude toward mobile banking usage.

Further, 94.5% of the respondents believe that the usage of mobile banking will sharply grow in the future where only 19.4% of respondents believe that the usage of mobile banking will decline in the future. Besides, some of the disadvantages of mobile banking have been identified. The majority of the respondents consented to the inconveniences they face while using mobile banking. Descriptive statistics showed that mobile banking use in all mobile, few vendors and technological complications are highly problematic to respondents for using mobile banking in Bangladesh.

9. Conclusion

Today, transactions through mobile banking have become easier than traditional banking because customers don’t need to go to branches of physical banks for banking transactions. In Bangladesh, the prevalence of mobile banking usage starts with young people from the lower-middle classes, and the perceived advantages of mobile banking are the same for all people. There is a positive attitude toward such technological adoption of sustainable banking in Bangladesh. People don’t need to waste their valuable time by going to physical bank branches, as they can do all the banking activities through a mobile phone. The findings show that customers’ positive attitude toward mobile banking is significantly influenced by usage benefits, shopping benefits, and psychological factors, but convenience benefits do not influence the positive attitude of customers. So, the mobile banking authorities should necessary step in to increase the convenience benefits of using mobile banking. Some disadvantages of using mobile banking have been identified, so mobile banking authorities should take proper steps to mitigate those problems to ensure sustainable and effective mobile banking in Bangladesh.

References


