Users’ Perception about Mobile Banking: A Case Study on Private Commercial Banks of Bangladesh

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Abstract: Mobile banking is now a common e-commerce tool for most of the private commercial banks of Bangladesh. This study focused on usage, common advantages, services and problems of mobile banking both for bank clients and for bank employees. 446 respondents of 18 commercial banks were selected as sample using stratified sampling technique. Five-point Likert scale was used preparing the interview schedule. Collected data and frequency was analyzed through mean, standard deviation, coefficient of variance and chi-square test. APA (6th Ed.) was used for overall formatting of the study. Findings of the study show that most the mobile banking users are unusual user. Bank employees are more frequent user comparing to bank clients. Most of the respondents think that mobile banking saves both time and money. Most of the respondents use mobile banking either to send or to receive money and next important service is to mobile balance recharge. Mobile banking also suffers with problems. Mobile banking is comparatively costly, difficult to use, limited services-are the major problems of mobile banking in Bangladesh.

Keywords: Users, perception, mobile banking, PCBs

1. Introduction
Mobile banking has made a good start in the private commercial banks of Bangladesh. Many banks have already introduced mobile banking with different names. Mobile banking transactions have been increasing rapidly. There are 25 million mobile bank account holders and the number is increasing every day (Rahman, 2015). According to BTRC, the total number of mobile phone subscriptions has reached 119.09 million at the end of September, 2016 which is about eighty-three percent of the total population. Dutch-Bangla Bank Limited was the pioneer in mobile banking although bkash of BRAC bank controls eighty percent of the mobile banking transactions in Bangladesh (Rashid, 2015). Recent times Bangladesh has seen a phenomenal growth in mobile money transactions. Number of customers on mobile financial services has increased to 28.65 million, whereas active accounts in mobile banking reached 12.23 million in June 2015 (Rashid, 2015).

1.1 Rationale of the Study
Mobile banking is playing a significant role in the economy of Bangladesh. On 23 December 2010, ex-governor of Bangladesh Bank, Dr. Atiur Rahman has issued order to every commercial bank to start mobile banking. Therefore, mobile banking is necessary to introduce especially for developing country like Bangladesh. The major two parties involved with mobile banking are- bank clients and bank employees. This study focused on the two parties in the perception of mobile banking.

1.2 Objectives of the Study
The main objective of the study is to find out usage, advantages, services and problems of mobile banking in the private commercial banking sectors of Bangladesh by bank clients and bank employees. Other specific objectives are set out as follows:
- To measure the usages of mobile banking in Bangladesh.
- To find the most used services given by mobile banking in Bangladesh.
- To find the major advantages and problems of mobile banking in Bangladesh.
- To find out differences between opinions of the bank clients and bank employees.

2. Literature Review
Sohel et al., (2011) in their study tried to find out the problem and prospect of mobile banking in Bangladesh. Most of the respondents think mobile banking saves time than traditional banking. Almost all the banks are trying to adopt...
mobile banking to make their customers satisfied and be advance in their world. All the operators of mobile phone in Bangladesh have started to be involved at a greater extent in this regard (Parvin, 2013).

Inam & Islam (2013) deals with mobile financial services. Almost all banks are trying to provide financial service to maximum people through mobile phone and it’s becoming familiar as mobile banking. Kabir (2013) conducted a study to investigate the factors that influence the users of banking services to use mobile banking in Bangladesh. Factors such as performance risk, security risk, time risk, social risk and financial risk are found to be negatively related with the usages of mobile banking. While factors like ability, integrity, benevolence, perceived usefulness, perceived ease of use relative cost and time advantages are positively related with the intention to use mobile banking services. Islam (2013) said that most of the respondents opined that this system is less costly, time saving and felt trust to this service. He added that the absence of regulatory framework may lead to money laundering activities. Siddiquie (2014) said that mobile financial service is available and very effective in a country that is geographically challenged like Bangladesh, Kenya, and Nigeria etc. The scope of MFS has not yet been explored properly in Bangladesh.

Hossain & Haque (2014) evaluates the customer’s perspective of the adoption of m-banking in Bangladesh. Customer's perception was found to be overwhelmingly positive. Technical and security standards, regulatory and supervisory issues, business and legal issues- were found to be the main factors that might hinder mobile banking implementation in Bangladesh. Islam (2014) expressed that mobile banking rapidly increase to make easy payment system; user can access at any time to make any payment through mobile banking. Sometimes mobile is also connected with internet banking. Sagib & Zapan (2014) opined that the major challenges for marketers are to understand what customers perceive as quality dimensions in mobile banking services, and what impact these dimensions have on customer satisfaction and retention. Hossain & Hossain (2015) tried to analyze the relationships between the quality of service and satisfaction of the customer on mobile banking sector of Bangladesh. The findings advocate that the executives of these banks should put more focus on escalating switching cost.

From the above review of literature related to mobile banking it is observed that most of the study is concerned with operation and adoption of mobile banking, factors influencing the adoption, service quality, security challenges of mobile banking, problems and prospects of mobile banking etc. But there is no study that separately discuss the usages, services, advantages and problems of both bank clients and bank employee and find any significant different between bank clients and bank employees’ opinion. Researchers are trying to cover those gaps.

3. Methodology of the Study

A structured interview schedule was prepared based on group discussion and objectives of the study. The interview schedule was organized into two sections: demographic and analytical. Demographic data includes sex, age, educational level, occupation, and income level. Analytical part includes data relating to mobile banking.

3.1. Sampling Technique

Stratified random sampling was used through the study. There were 03 strata in this study. 14 conventional commercial banks, 03 Islamic commercial banks and 01 foreign commercial bank were used as sample from total 48 commercial banks of Bangladesh (Bangladesh Bank, 2016). Total 450 (18 × 25) interview schedules were distributed; 15 for bank client and 10 for bank employees for each bank. 446 schedules were collected and analyzed as 4 interview schedules were missed by the bank clients.

3.2. Collection and Analysis of Data

This research is mainly based on primary data. All samples were collected through the students of Hamdard University Bangladesh. Before collection of information, they were given a lesson about interview schedule. Interview schedules are collected between the periods of August 2018 to October 2019. Collected data are analyzed using five-point Likert scale. Data has been analyzed using SPSS. Mean, C.V. and chi-square test have been used in this study to analyze the data.

4. Analysis and Findings of the Study

4.1. Analyzing Demographic Data

From Table 1, it is found that 88 percent of our respondent is male and only 12 percent is female. This is because males are mostly engaged in banking sectors in Bangladesh. We also found that most mobile banking users are aged between 20 to 30 years. They possess about 49 percent of the total respondents. Second highest users are between the ages of 30 to 40. Below 20 years and above 50 years of age users are very few.

Table 1 also describes the education level of the respondents; it is seen that most respondents have completed their master’s program. 68 percent of the respondents have completed master’s program. Next highest respondents have completed their graduation program; it possesses 14 percent of the total respondents. Below secondary education level are only about 5 percent of the total respondents and only 1 percent respondents have completed or continuing M Phil or PhD program. Bank employees are more educated than bank clients, comparatively. Basing on per month income, highest number of respondents are earning between BDT 30,000 to BDT 45,000 per month. It possesses about 33 percent of the total respondents. Respondents earning more than BDT 60,000 possess about 11 percent of the total population.
5. Analysis of the Uses and Problems of Mobile Banking

5.1. Assessing the Users of Mobile Banking

Table 2 shows the number of mobile banking users by the respondents. About 73 percent of the respondents use mobile banking and about 27 percent do not use it according to primary of the study.

Table 2: Measurement of the Number of Users of Mobile Banking

| S. N. | Opinion Categories | No. of Respondents | Total | % |
|-------|--------------------|--------------------|-------|---|
|       | Bank Client        | Bank Employee      |       |   |
| 1     | Use                | 191                | 133   | 324 72.65 |
| 2     | Don't Use          | 75                 | 47    | 122 27.35 |
| Total |                    | 266                | 180   | 446 100  |

5.2. Measuring the Frequency of Usages of Mobile Banking by the Respondents

There are five categories of users of mobile banking in this study; 1 equals usual user who use 0 - 5 times per month, 2 equals usual users who use mobile banking 6 – 10 times per month, 3 equals regular users who use mobile banking 11 – 15 times per month, 4 equals frequent user who use mobile banking 16 – 20 times per month and 5 equals very frequent user who use mobile banking more than 20 times per month.

Table 3: Measuring the Frequency of Usage of Mobile Banking in a Month

| Sl. No. | Types of Users | No. of Respondents | Total | % |
|---------|----------------|--------------------|-------|---|
|         | Bank Client    | Bank Employee      |       |   |
| 1       | Unusual        | 129                | 75    | 204 63 |
| 2       | Usual          | 46                 | 45    | 91 28 |
| 3       | Regular        | 10                 | 8     | 18 5.56 |
| 4       | Frequent       | 4                  | 4     | 8 2.5 |
| 5       | Very Frequent  | 2                  | 1     | 3 0.9 |
| Total   |                | 191                | 133   | 324 100 |
| Mean    |                | 1.45               | 1.58  |     |

Table 3 shows that 91 respondents use mobile banking 1 - 10 times per month. 5.56 percent of the respondents use mobile banking 10 - 15 times per month and only 03 percent of the respondents use mobile banking more than 15 times per month. Mean value is 1.45 for bank client and 1.58 for bank employee; that is most of the respondents are unusual user.

5.3. Different Services Used by the Respondents

Because of varieties of services, mobile banking became popular day by day. One can send and receive cash money from anytime from anywhere. One can do banking transactions through mobile although he may have no bank account. One can pay their utility bills like electricity bill, water bills, mobile bills etc. through their mobiles easily. Through mobile

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| Total   |                | 191                | 133   | 324 100 |
| Mean    |                | 1.45               | 1.58  |     |
anyone also can recharge their mobile balances without going to the shops. One can also check their account balances; check e-statement, fund transfer through their mobile banking.

Figure 1: Measuring Services Provided by the Mobile Banking

Figure 1 shows the frequency of using different services provided by mobile banking by respondents. Most of the users send or receive cash money through mobile banking. About 56 percent of the clients and 46 percent of the bank employees send or receive money through mobile. The next frequent service is mobile balance recharge. About 14 percent of bank clients and 21 percent of employee recharge their mobile phones through mobile banking. Another important service is paying utility bill. About 13 percent of clients and 12 percent of bank employees pay utility bills through mobile banking. About 8 percent of client and 7 percent of bank employee check their account balances. The service ‘balance enquiry’ is used by bank client is 7 percent and 9 percent is used by bank employees. Other services of mobile banking are balance confirmation, withdraw credit, fund transfer etc.

5.4. Major Advantages of Mobile Banking by the Respondents

Mobile banking gives different services to the customers for bank and bank employees. Figure 2 show that most of the users think that mobile banking saves their time a lot. One can transfer money without going to the banks physically. Branches of banks are also not available to everywhere. To open a bank account is very much complicated, formal and time consuming. But mobile banking eradicates all the above problems faced by the users in this respect. One can confirm about the mobile banking transaction as they give confirmation messages to the recipient.

Figure 2: Measuring Advantages of Using Mobile Banking in Bangladesh

Figure 2 show that about 54 percent of bank clients and 48 percent of bank employees opine that mobile banking saves their time. About 29 percent of bank customer and 32 percent of bank employee think that mobile banking is easy to use. About 10 percent of bank clients and 11 percent of bank employees think that mobile banking also saves their money. 6 percent of the bank clients and 8 percent of the bank employee think that they get more freedom in usage of mobile banking.

5.5. Assessing Problems of Using Mobile Banking by the Respondents

Although mobile banking is very popular in Bangladesh, it is not free from problems. The bank clients and employees also have some problems by using mobile banking. They think mobile banking is costly, mobile banking is difficult to use, mobile banking is complex etc. Out of 266 bank client, 192 use mobile banking and 145 face problem. Out of 180 bank employee, 133 use mobile banking and 122 face problem with it. Two major problems of the respondents can be measured by the following - 1) mobile banking is costly and 2) mobile banking is difficult to use.
5.6. Assessment of Opinion of the Respondents that Mobile Banking is Costly

Most of the private banks of Bangladesh offer mobile banking. All of the banks nearly charge Tk. 20 for sending/receiving Tk. 1,000 for mobile banking service. Table 4 shows that 56.55 percent of the bank client and 33.61 percent of the bank employee agree and strongly agree with the statement that mobile banking is costly. 13 percent of the bank client and 32 percent of the bank employee disagree and strongly disagree with the statement. Though mean value is 3.48 for the bank client and 2.97 for bank employee. Coefficient of variance of their opinions is 24.57 percent for bank client and 35.3 percent for bank employee. That means opinion of the bank clients are more consistent comparing to bank employees.

| Opinion Categories | No. of Respondents | | |
|--------------------|-------------------|----------------|---|
|                    | Bank Client       | Bank Employee  | Total |
| 1                  | 3                 | 12             | 15    | 5.6  |
| 2                  | 16                | 27             | 43    | 16   |
| 3                  | 44                | 42             | 86    | 32   |
| 4                  | 72                | 35             | 107   | 40   |
| 5                  | 10                | 6              | 16    | 6    |
| Total              | 145               | 122            | 267   | 100  |
| Mean               | 3.48              | 2.97           |       |      |
| C.V.               | 24.57             | 35.3           |       |      |
| No. of Res. (1+2)  | 19                | 39             | 58    | 21.7 |
| No. of Res. (4+5)  | 82                | 41             | 123   | 46   |

\[ \chi^2 \text{ (Chi-square) - Test} \]

Calculated Value: 18.9 \hspace{1cm} Table Value: 7.82 \hspace{1cm} Degree of freedom: 3

**Table 4: Assessment of Opinion that Mobile Banking is Costly**

Sources: Calculated from field survey, Note: 1= Strongly Disagree, 2=Disagree, 3= neither Agree nor Disagree, 4=Agree, 5=Strongly Agree

In order to calculate \( \chi^2 \) from Table 4, 1st row is merged with 2nd row and the new degree of freedom becomes \((4 - 1)(2 - 1) = 3\). The table value of \( \chi^2 \) for 3 degree of freedom, at 5% level of significance is 7.82 and the calculated value is 18.9. The calculated value of \( \chi^2 \) is greater than the table value. Therefore, it can be said that there is a significant difference between the opinions of the respondents that mobile banking is costly. Causes of Differences between the opinion of the bank clients and bank employees that mobile banking is costly:

- Average income of the bank employee is more than the average income of the bank client. Therefore, bank employees feel fewer burdens of mobile banking costs.
- As a bank employee, they introduce mobile banking and they always support their own mobile banking services. Therefore, they may feel mobile banking is less costly.

5.7. Assessment of Opinion of the Respondents that Mobile Banking is Difficult to Use

Although mobile banking is easy to use, many respondents think it is difficult or cumbersome. As it is seen from Table 5, 33.8 percent of the bank client and 72 percent of the bank employee disagree and strongly disagree with the statement. They say this is not major problem. On the other hand, 9.7 percent of the bank client and 11.5 percent of the bank employee agree and strongly agree with the statement. 56.55 percent of the bank client and 16.4 percent of the bank employees neither agree nor disagree with the statement.

Coefficient of variance of their opinion is 30 percent for bank client and 36.59 percent for bank employee; that is bank client’s opinion is more constant than bank employees. Mean value is 2.71 for the bank client and 2.26 for the bank employee; that means most of the respondents disagree with the problem. Table 5 clearly indicates that 51.3 percent of the respondents disagree/strongly disagree, 10.5 percent of the respondents agree/strongly agree and 38 percent of the respondents are neutral with the problem.

In order to calculate \( \chi^2 \) from Table 5, 5th row is merged with 4th row and the new degree of freedom becomes \((4 - 1)(2 - 1) = 3\). The table value of \( \chi^2 \) for 3 degree of freedom, at 5% level of significance is 7.82 and the calculated value is 47.90. The calculated value of \( \chi^2 \) is much greater than the table value. Therefore, it can be said that there is a significant difference between the opinions of the respondents that mobile banking is difficult to use.
Opinion Categories | No. of Respondents | | Bank Client | Bank Employee | Total | %  
--- | --- | --- | --- | --- | --- | ---  
1 | 11 | 16 | 24 | 9  
2 | 38 | 72 | 110 | 41  
3 | 82 | 20 | 102 | 38  
4 | 10 | 14 | 24 | 9  
5 | 4 | 0 | 4 | 1.5  
| Total | 145 | 122 | 267 | 100  
| Mean | 2.71 | 2.26 | |  
| C.V. | 30 | 36.59 | |  
| No. of Res. (1+2) | 49 | 88 | 137 | 51.3  
| No. of Res. (4+5) | 14 | 14 | 28 | 10.5  

\[ \chi^2 \] (Chi-square) – Test  
Calculated Value: 47.49  
Table Value: 7.82  
Degree of freedom: 3  

**Table 5: Assessment of Opinion That Mobile Banking Is Difficult To Use**

**Sources:** Calculated from Field Survey, Note: 1= Strongly Disagree, 2=Disagree, 3= neither Agree Nor Disagree, 4=Agree, 5= Strongly Agree

Causes of differences between the opinion of the bank client and bank employees that mobile banking is difficult to use:

- Bank employees have more knowledge and skill about mobile banking than bank clients. Therefore, bank employees do not feel mobile banking difficult as it is felt by the bank clients.
- The average educational level of bank employee is also higher than the bank clients. It may be another cause that bank client feels mobile banking more difficult than the bank employees.

5.8. Other Problems and Causes of Not Using Mobile Banking by the Respondents

Mobile banking is very popular in Bangladesh although many bank clients and bank employees don’t use it still today. Despite huge prospects, not all banks adopted mobile banking in Bangladesh. There are other causes for not using mobile banking in Bangladesh which are found by open-ended questions in the interview schedule. The causes are as follows:

- Low education rate among respondents
- Lack of conscious about mobile banking
- Network is not always available
- Limited services provided by mobile banking
- Respondent do not feel it’s important
- Have no clear idea about the function of the mobile banking
- Not interested to use mobile banking
- Mobile banking is not available by all banks
- Less publicity/awareness among the bank clients
- Bad services provided by the agents of mobile banking operators
- Security problems with PIN of the recipient

6. Findings of the Study

- According to primary data analysis, about 73 percent of the total respondents use mobile banking in Bangladesh. About 63 percent of the respondent use mobile banking 0 -5 times and remaining 37 percent of them use more than 5 times per month.
- Mobile banking gives different services to the users; the most common and frequently service used is sending and receiving money. 56 percent of bank client and 46 percent of the bank employees use this service. Other services used by them are payment of utility bills, mobile i-top-up, and account balance enquiry, check e-statement etc.
- Mobile banking is popular for different services; one can top-up their mobile balance at any time, one can pay their utility bills, check their account balances, and many others. Mobile banking points are almost everywhere in Bangladesh and therefore it is easy to send money and receive money without having a mobile bank account.
- ‘Rocket’ of Duch-Bangla bank limited, ‘bKash’ of BRAC Bank, and ‘mCash’ of Islamic Bank limited- are most used mobile banking in Bangladesh. Bkash of BRAC bank controls eighty percent of the mobile banking transactions in Bangladesh.
- There are problems in mobile banking. Most common objection of the respondents is that mobile banking charge high for transaction; 46 percent of the respondents agree/strongly agree, 32 percent of the respondents are neutral and 22 percent of the respondents disagree/strongly disagree with the problem. If a user has no any personal mobile banking account, he is to depend on mobile banking cash point.
- Another problem with mobile banking is it is difficult to use. 51 percent of the respondents disagree/strongly disagree, 11 percent of the respondents agree/strongly agree and 38 percent of the respondents are neutral with the problem. They think that it is not a major problem.
• There are other problems with mobile banking. Many respondents feel that they do not really need mobile banking. They do not know well about mobile banking. They also opine that mobile banking gives limited services to its users.

7. Conclusion
Mobile banking, out of others e-commerce tools, takes a remarkable position in Bangladesh. One may have no account in bank but may have a mobile bank account and can easily do their daily transactions. More than seventy percent people use mobile banking in Bangladesh. Time saving, money saving, easy accessibility to all people, not mandatory to open any account made mobile banking more popular. Mobile banking is mostly used for sending or receiving cash money in Bangladesh. Mobile balance recharge, payment of utility bills is important among others different services given by mobile banking. There are also different problems with mobile banking. Most of the respondent felt that mobile banking is costly and many respondents also opine that it is difficult to use. But all users have no mobile banking account and opinion between bank client and bank employee also differ significantly in some respects relating to mobile banking. Bank employees use more mobile banking than the bank clients. Because employees are more solvent and more educated comparing to all common bank clients. In spite of having opportunity to use mobile banking many bank clients or employees don’t use it. The cause may be that they do not need mobile banking, want to avoid complexity, not conscious about it etc.

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9. Appendix

Interview Schedule on Mobile Banking for Bank Clients and Employees
1. Your Name & Designation
2. Your sex: □ Male □ Female
3. Your age –

□ ≤ 20  □ 21 - 30  □ 31 - 40  □ 41 - 50  □ > 50

4. Your highest degree in education that you have already completed / studying –

□ SSC or Below  □ HSC  □ Honors  □ Masters  □ M. Phil. / Ph. D.

5. Your income level (Per month in Tk.) –

□ ≤ 15,000  □ 15,001- 30,000  □ 30,001- 45,000  □ 45,001- 60,000  □ > 60,000

6. (i) Do you use Mobile Banking? Yes / No.
   If yes, how many times do you use Mobile Banking per month?
(ii) If yes, which services of Mobile Banking do you use most?
(Please give one or more √ mark & rank them)

- Bill Payment
- Send money
- Top-up
- Bank A/C
- Balance Enquiry
- Statement

(iii) Which benefit is most important in Mobile Banking?
(Please give one or more √ mark & rank them)

- Saves time
- Saves money
- Easy to use
- Other benefits (if any)

(iv) Do you have any problems with Mobile Banking? Yes / No. If yes, which ones are?

- Mobile banking is costly -
  - Strongly Agree
  - Agree
  - Neutral
  - Disagree
  - Strongly disagree

- Mobile banking is difficult to use -
  - Strongly Agree
  - Agree
  - Neutral
  - Disagree
  - Strongly disagree

- Other problems (if any) -