FACTORS INFLUENCING THE ADOPTION OF MOBILE BANKING IN RURAL AREAS OF MOULVIBAZAR DISTRICT

P Pooja[1], JK Saha[1*], and MA Rahman[2]

[1] *Department of Agricultural Finance and Banking, Sylhet Agricultural University, Sylhet, Bangladesh.*
[2] *Department of Agricultural Finance and Banking, Bangladesh Agricultural University, Mymensingh, Bangladesh.*

Abstract

With the rapid advancement of mobile banking technology in our country, consumers tend to adopt this service for its potential benefits. The present study plans to determine the underlying factors that affect mobile banking adoption in rural areas. A total of 140 mobile banking users were selected from Kamalganj and Sreemangal Upazila of Moulvibazar district by employing the simple random sampling procedure. Primary data were collected from the respondents through face-to-face interviews using a structured interview schedule. Socioeconomic attributes of the respondents indicated that 67.1% of them belonged to the 30-64 age group and 86.4% of them were male, whereas only 13.6% of them were female. Most of the respondents had agriculture as their occupation. 92.2% of them were bKash users, and only 1.4% used Rocket. The remaining 6.4% of them used both bKash and Rocket in the study area. Factor analysis was applied to identify the factors influencing mobile banking adoption, and a regression model was run to observe the key factor. The study revealed that five predominant factors, namely credibility, ease of use, self-efficiency, usefulness, and social influence significantly influences rural people's adoption of mobile banking. The extracted five factors explained 94% of the total variation of the data, and credibility was the most influential among them. Considering the findings, mobile banking service providers can take up some effective strategies for further improvement of the mobile banking sector, essentially in rural areas.

Keywords: Mobile banking, Adoption, Factor analysis, Rural area.

Introduction

Mobile banking is the facility of banking services provided to the customers on their mobile devices. In other words, mobile banking refers to the provision and usage of banking and financial services with the help of mobile telecommunication devices. At present, our country is going through a massive technological transformation to achieve the goal of a digital Bangladesh. Digital financial services (DFS) are rapidly flourishing in parallel with other service sectors. DFS is very promising to promote greater financial inclusion in areas where financial institutions are scarce, and it reduces costs associated with making a large number of financial transactions. Financial inclusion refers to ensuring the access to appropriate financial goods and services needed by the low-income generating groups and rural people at an affordable cost transparently and fairly by the mainstream institutional players (Rao and Prathima, 2003).

The traditional approach to financial inclusion was limited to the expansion of commercial bank branches in the rural area, but at present Mobile Financial Services (MFS) opened up a new window for Bangladesh in this regard. A study showed that seventy-one percent of adults owned a mobile phone, whereas only thirty-five percent of adults were under digital financial inclusion (Financial Inclusion Insights, 2019). To improve this situation, mobile phones can serve as a platform for banking services because, in the recent past, mobile phone has emerged as the most popular and promising technology for financial inclusion and thereby

making banking more accessible and affordable, particularly in rural areas. In the last few years, mobile banking services have brought over five crore unbanked people under financial service (The Independent, 2018).

*Corresponding author: JK Saha, Department of Agricultural Finance and Banking, Sylhet Agricultural University, Sylhet-3100, Bangladesh. Email: sahasau@yahoo.com

From the beginning of mobile banking in 2011, Bangladesh experienced a sturdy growth in the number of account holders, volume, and amount of transactions in this sector. As branch-based banking doesn't exist in every remote area of our country, mobile banking will be helpful to rural customers in saving their time and money to visit the distant branches for money transactions. According to Bangladesh Bank data, in the last five years, the flow of money into the rural parts of Bangladesh through mobile financial services has increased quite significantly. On average, transactions worth Tk. 1,038 crore are made through mobile banking accounts, and about 60 percent of them are in rural areas (The Independent, 2018).

The expansion of mobile phones presents a channel to increase access to digital financial services, especially in rural areas. It was reviewed in 2018 that thirty-five percent of Bangladeshi adults were included in digital financial services through a registered mobile banking account, and forty-two percent of the rural poor were financially included (Financial Inclusion Insights, 2019). Studies showed that for banking penetration into rural areas of a country, mobile banking stands as the best alternative. As a result, mobile banking service providers are making investments into the mobile banking framework for the efficient provision of mobile banking services to the low-income market. Thus, it is important that mobile banking service providers understand the reasons which persuade people to start using mobile banking. In this context, the present study attempted to obtain insights into the factors that influence the adoption of mobile banking in rural regions of our country.

Any research should be conducted to find answers to some questions. Research question helps writers focus their research by providing a path through the research and writing process. Appropriate answering to some research questions was necessary to increase the value of the study. Following are the research questions that guided this study: What factors mainly influence the adoption of mobile banking in rural areas? Which age group, occupation, education, and income level do most customers belong to? What is the market share of various mobile financial service providers in rural area? Based on these questions, this research was focused on analyzing the demographic characteristics and mobile banking usage of the respondents and to determine the factors influencing the adoption of mobile banking.

There are many previous studies that analyzed the intention of customers to adopt mobile banking; for instance, Islam *et al.* (2017) in their study observed that there is still no sign of significant progress in making mobile baking popular among the customers in our country. Liza (2014) examined the adoption of mobile banking services for low income customers in Bangladesh context. This research showed that customers would consider adopting mobile banking as long as it is perceived to be valuable and easy to use, along with the affordability of the service. Nawaz and Yamin (2018) examined the factors, which influenced the adoption of m-banking services among the Sri Lankan banking customers and found perceived trust and perceived compatibility to be most significantly influential. A different study carried out by Dilukshi and Madana (2016) in Sri Lanka found that perceived usefulness, risk and compatibility have an impact on mobile banking adoption, whereas social influences have no significant effect on adoption. Parthiban (2016) analyzed that convenience, safety, reliability, efficiency and responsiveness were the main factors, which significantly influenced customers to adopt mobile banking in Chennai city. Results of the study by Karma *et al.* (2014) in Sudan showed that customers were strongly influenced by perceived trust, ease of use, and perceived risk to adopt mobile banking, whereas usefulness was found to have no influence on intention to use mobile banking service. A significant part of similar studies on the adoption of mobile banking services has focused on urban or metropolitan areas, whereas studies that have specifically considered the scenario of mobile banking in rural areas are scant. This is where the present study fits in and fills the research gap.

Materials and Methods

The overall study was based on both primary and secondary data. The target audience of the study comprised those who are using mobile banking facilities in rural areas. The simple random sampling method was used to select samples from a list of mobile banking users from ten unions of Kamalganj and Sreemangal Upazila of Moulvibazar District. The study area was selected considering the associated limitations with respect to time, money and accessibility. Also, sufficient numbers of rural people using mobile banking services were available and the researcher was familiar with the local language, so reliable data would be obtained. During March-April, 2019, primary data were collected from 140 mobile banking users by using pretested interview schedules through face-to-face interviews. A five-point Likert

scale was used to record the responses regarding the adoption of mobile banking. In addition to field level primary data, secondary data were also collected from various journals, newspapers and reports. After collecting data, factor analysis was employed to identify the factors responsible for the adoption of mobile banking by the customers of rural areas. Also, a multiple regression model was fitted to analyze the relationship between the extracted factors and the adoption of mobile banking services. The analysis was done using Microsoft Excel, SPSS and R. Descriptive statistics were used to find out the respondents' demographics to provide a descriptive profile and their mobile banking usage.

Factor Analysis

Factor analysis is a technique that is used to reduce a large number of variables into fewer factors. Thirteen variables were identified based on the literature review, which was reduced to five factors in explaining the adoption of mobile banking in rural areas using the principal component method of factor analysis. Bartlett Test of Sphericity and Kaiser-Meyer Olkin (KMO) measure were used to determine the suitability of factor analysis. To measure the internal consistency of the Likert scale items Chronbach Alpha reliability test was employed. In the present study, eigenvalues and scree test (i.e., scree plot) were used to determine how many factors to retain. The criterion that was used to determine the number of factors to retain is the Kaiser's criterion which is a rule of thumb. This criterion suggests retaining all factors above the eigenvalue of 1 (Kaiser, 1960).

Multiple Linear Regression Analysis

Multiple linear regression analysis has been conducted to study any associative relationship between the extracted factors (independent variables) and the adoption of mobile banking (dependent variable). Regarding data analysis, the dependent variable was aggregated, and factor scores were considered the value of independent variables. The specification of the regression model can be written as follows:

$$Y_i = \alpha + \beta_1 X_1 + \beta_2 X_2 + \ldots\ldots + \beta_i X_i + e_i$$

Where, Y_i = dependent variable

α = Intercept (Constant term)

X_1 through X_i = i distinct independent or explanatory variables

β_1 through β_i = estimated regression coefficients

e_i = error term

i = 1, 2, 3…n

Results & Discussion

Demographic profile of the respondents

Table 1 summarizes the demographic information of the respondents by age, gender, education, occupation and income. In the present study, the rural mobile banking users were classified into three age groups according to the Bangladesh Bureau of Statistics (BBS, 2015). The age group shows that most of the respondents (67.1%) were aged between 30 to 64. 25.7% of respondents were from the 15 to 29 age group while only 7.1% of respondents were aged 65 and above. It is noted from the study that only 13.6% of the respondents were female, and the majority (86.4%) were male. With regards to education, Table 1 shows that the majority of the respondents (34.3%) were educated up to the primary level. 12.1% of respondents had no formal education. Whereas 22.9%, 21.4%, and 9.3% had secondary, higher secondary, and tertiary level education, respectively. Occupation-wise, the majority (52%) did farming to earn their livelihood. 32% were indifferent businesses, 20% of them were service holders, 6% were students, and 23% were in other activities which include driving, tailoring, tutoring, housewife etc. Regarding the yearly income level of the

respondents, it's seen that the majority (46.4%) fell below the income level between BDT. 1,20,001 to BDT. 3,60,000. 41.4% of respondents had an income level up to BDT. 1,20,000 and 6.4% had an income level above BDT. 3,60,000. On the other hand, 5.8% of respondents had no personal income.

Table 1: Profile of respondents

	Frequency	Percentage (%)
Age		
15-29	36	25.7
30- 64	94	67.1
65 and above	10	7.1
Total	140	100
Gender		
Female	19	13.6
Male	121	86.4
Total	140	100
Education		
No formal education	17	12.1
Primary	48	34.3
Secondary	32	22.9
Higher secondary	30	21.4
Tertiary	13	9.3
Total	140	100
Occupation		
Farming	52	37.1
Business	32	23.1
Service	20	14.2
student	6	4.2
Others	23	16.4
Retired	7	5
Total	140	100
Income level (yearly)		
No personal income	8	5.8
Up to BDT. 1,20,000	58	41.4
BDT. 1,20,001 to BDT. 3,60,000	65	46.4
Above BDT. 3,60,000	9	6.4
Total	140	100

Source: Field Survey, 2019

Consumers' information on mobile banking usage is displayed in Table 2. It reveals that the maximum share of the respondents (92.2%) was bkash (BRAC bank Ltd.) users, and only 1.4% were users of rocket (Dutch Bangla Bank Ltd.), whereas 6.4% of respondents were found to use both bkash and rocket. A survey reported that in 2018, bkash remained the preferred mobile money provider in Bangladesh, while DBBL was a distant second (Financial Inclusion Insights, 2019). It can also be noted that in the study area, no other financial service providers (ucash, mcash, nagad etc.) were used by the respondents. In connection with experience in using this technology, 58.6% of the respondents have been using mobile banking for more than three years. It can also be seen that 28.6% and 12.8% of respondents were using mobile banking for one to three years and less than one year, respectively. In terms of using process majority of the respondents (75%) of the study area were found to use mobile banking through USSD (Unstructured Supplementary Service Data) channel, and 25% of them used a mobile application depending on their mobile handset operability and their preference.

Table 2: Mobile banking usage

	Frequency	**Percentage (%)**
Mobile financial service providers		
Bkash	129	92.2
Rocket	2	1.4
Both (Bkash& Rocket)	9	6.4
Total	140	100
Years of using		
< one year	18	12.8
one-three years	40	28.6
> three years	82	58.6
Total	140	100
Using process		
Mobile app	35	25
USSD channel	105	75
Total	140	100

Source: Field Survey, 2019

This study provides an insight into the most commonly used mobile banking services by the respondents in the study area. Table 3 shows that cash out was the most popular service by 94.3% of respondents, followed by account recharge, send money, cash in, payment, and remittance service. Bangladesh Bank's study found that the rural users specifically highlighted the benefits of receiving payments (Chen, 2012). Again, only 9.3% of the respondents paid utility bills through mobile banking, and it was found that most of the respondents didn't know about this particular service.

Table 3: Commonly used mobile banking services by respondents

Services	**Cash in**	**Cash out**	**Send money**	**Payment**	**Mobile account recharge**	**Pay utility bill**	**Remittance**
No. of respondents using the service	72 (51.4)	132 (94.3)	76 (54.3)	37 (26.4)	81 (57.9)	13 (9.3)	43 (30.7)

Source: Field Survey, 2019
Figures in parentheses indicate percentages

Factors influencing the adoption of mobile banking in rural areas

Factor analysis was applied to determine the predominant factors which influence the customers to adopt mobile banking in rural areas.

Table 4: KMO measures and Bartlett's test result

KMO and Bartlett's test		
Kaiser-Meyer-Olkin measure of sampling adequacy		0.691
Bartlett's test of sphericity	Approx. chi-square	2421.918
	df	78
	Sig.	0.000
a. Based on correlations		

*** = Significant at 1% level, ** = Significant at 5% level, * = Significant at 10% level   Source: Author's estimation, 2019

The Kaiser-Meyer Olkin (KMO) measures the sampling adequacy, which determines if the data is suited for factor analysis, a value greater than 0.6 is considered adequate (Kaiser and Rice, 1974). Table 4 shows the KMO measure is 0.691, which is greater than 0.5; thus, confirming the appropriateness of factor analysis. Bartlett's test indicates the strength of the relationship among variables. A probability of less than 0.5 is acceptable (Singh and Jain, 2009). Table 4 highlights that the result is statistically significant at the 1% level, which indicates the variables, are highly correlated.

In order to prove the internal reliability of the model used, the Cronbach's Alpha Test of Reliability was performed. Table 5 shows that the estimated value of Cronbach's Alpha is 0.838, which is greater than 0.70, indicating the data is reliable.

Table 5: Cronbach's alpha reliability statistics

Cronbach's alpha	No. of items
0.838	13

Source: Author's estimation, 2019

Table 6: Communalities of variables

Sl no.	Variables	Initial	Extraction
V1	Useful in day to day activities	1.000	0.958
V2	It reduces cost	1.000	0.969
V3	Availability of service- anytime, anywhere	1.000	0.960
V4	M-banking is very easy to understand	1.000	0.854
V5	Easy to make a payment or transfer money	1.000	0.962
V6	Simple and easy process of receiving money	1.000	0.913
V7	M-banking transactions are secured	1.000	0.867
V8	Information is kept confidential	1.000	0.912
V9	Privacy isn't leaked	1.000	0.885
V10	Knowing how to navigate the mobile banking menu	1.000	0.982
V11	Making balance inquiry by myself	1.000	0.980
V12	Due to people around me using m-banking	1.000	0.989
V13	Friends and relatives encouraged me to use m-banking	1.000	0.988

Extraction Method: Principal Component Analysis

Source: Author's estimation, 2019

Communalities show how much of the variance in the variables has been accounted for by the extracted factors. The communalities in Table 6 range from 0.85 to 0.98, which indicates that the extracted components represent the variables well. For instance, it is evident from the table that 96% of the variance in V3 i.e. "Availability of service-anytime, anywhere" is accounted for.

Table 7: Extraction method: Principal Component Analysis

	Total variance explained								
	Initial eigenvalues			Extraction sums of squared loadings			Rotation sums of squared loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.989	38.375	38.375	4.989	38.375	38.375	2.896	22.274	22.274
2	2.565	19.735	58.109	2.565	19.735	58.109	2.732	21.014	43.287
3	2.033	15.637	73.746	2.033	15.637	73.746	2.660	20.460	63.747
4	1.598	12.293	86.039	1.598	12.293	86.039	1.989	15.300	79.047
5	1.035	7.964	94.003	1.035	7.964	94.003	1.944	14.956	94.003
6	0.280	2.156	96.159						
7	0.165	1.266	97.425						
8	0.131	1.009	98.434						
9	0.070	0.535	98.969						
10	0.062	0.479	99.448						
11	0.034	0.258	99.706						
12	0.020	0.152	99.858						
13	0.019	0.142	100.000						

Source: Author's estimation, 2019

Table 7 displays the eigenvalue in terms of the percentage of variance explained; for instance, factor 1 explains 38.375% of total variance. It can be seen that five factors were extracted from the cumulative percentage column with Eigenvalue greater than one and the other factors with Eigenvalue less than one were eliminated. All the five factors explain 94% of the variance; only 6% of information was lost. In consonance with Kenova and Jonasson (2006) 60% are arbitrary level for good factor loadings in Likert scale cases. The rotated sum of squared loadings was considered as the result from the rotation is more reliable than without rotating solution in factor analysis.

A scree plot can also depict the extraction of factors. It is a graph of the eigenvalues against all the factors. The point of interest is where the curve starts to flatten.
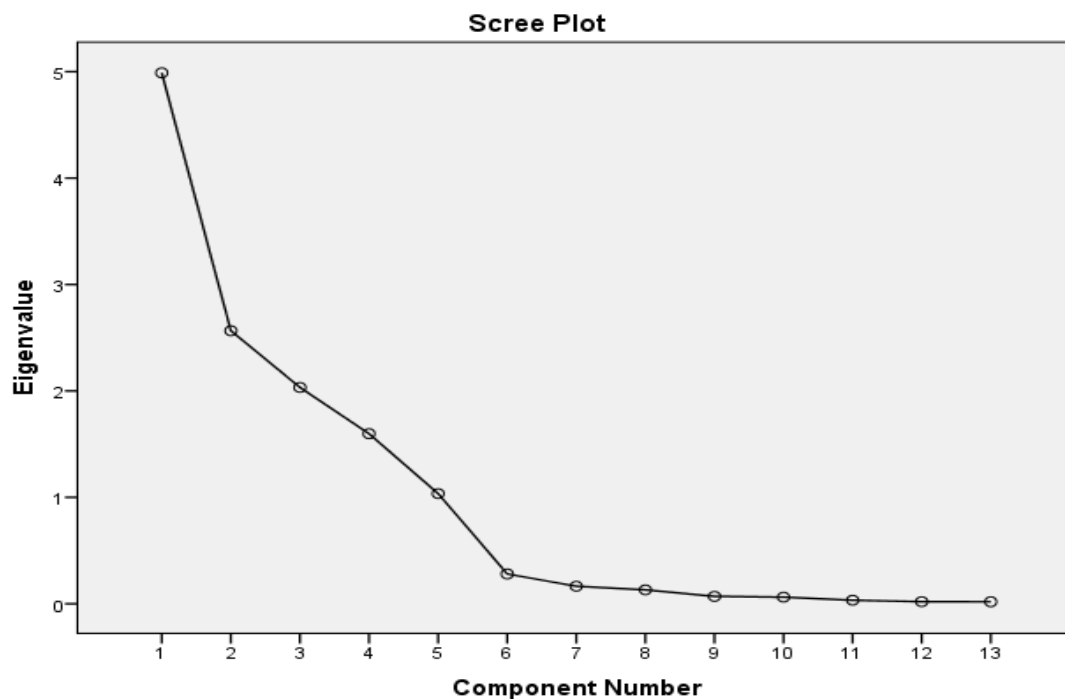
Fig.1. Scree Plot of Factor Extraction for m-banking adoption by rural users

The scree plot demonstrates the eigenvalues for the initial 13 components in the present study. The point at which the curve first begins to straighten out is considered to indicate the number of factors to extract. It can be seen that the curve slopes steeply downward, starting with the first component, and then begins to flatten between the fifth and sixth components. From the sixth component onward the curve is almost flat and has an eigenvalue of less than 1; so, five factors out of thirteen are retained and considered important factors for the adoption of mobile banking by customers in the study area.

Table 8: Rotated component matrix

Slno.	Variables	Component				
		Factor-1	Factor-2	Factor-3	Factor-4	Factor-5
V1	Useful in day to day activities	0.948				
V2	It reduces cost	0.952				
V3	Availability of service- anytime, anywhere	0.944				
V4	M-banking is very easy to understand		0.881			
V5	Easy to make a payment or transfer money		0.927			
V6	Simple and easy process of receiving money		0.922			
V7	M-banking transactions are secured			0.874		
V8	Information is kept confidential			0.942		
V9	Privacy isn't leaked			0.921		

V10	Knowing how to navigate mobile banking menu					0.948
V11	Making balance enquiry by myself					0.940
V12	Due to people around me using m-banking				0.983	
V13	Friends and relatives encourage me to use m-banking				0.984	

Source: Author's estimation, 2019

Table 8 shows the Rotated Component Matrix, which reduces the variables to the number of factors under which the variables have high loadings. It highlights the prime five components which played a great role in adopting mobile banking among the customers in rural areas. Based on their factor loadings, these five extracted factors can be interpreted as:

Table 9: Interpretation of factors

Factor	Variables
Usefulness (Factor-1)	Useful in day to day activities (V1), It reduces cost (V2),Availability of service- anytime, anywhere (V3)
Ease of use (Factor-2)	M-banking is very easy to understand (V4), Easy to make a payment or transfer money (V5), and Simple and easy process of receiving money (V6)
Credibility (Factor-3)	M-banking transactions are secured (V7), Information is kept confidential (V8), and Privacy isn't leaked (V9)
Social influence (Factor-4)	Due to people around me using m-banking (V12), Friends and relatives encourage me to use m-banking (V13)
Self-efficiency (Factor-5)	Knowing how to navigate the mobile banking menu (V10), Making balance inquiry by myself (V11)

Multiple Linear Regression Analysis

To test the statistical significance and the influence of these factors on adoption of mobile banking in the study areaa multiple linear regression analysis was carried out.

Table 10: Co-efficients and related statistics

Model	Coefficients	Std. error	Level of significance
(Constant)	50.229	0.179	0.000
Usefulness	1.886***	0.180	0.000
Ease of use	2.115***	0.182	0.000
Credibility	3.045***	0.177	0.000
Social influence	1.620***	0.181	0.000
Self-efficiency	1.981***	0.184	0.000
R	0.920		
R^2	0.846		
Adjusted R^2	0.841		
F- Value	147.7		

*** represents significant at 1% level (Source: Author's estimation, 2019)

Table 10 indicates that all the five factors are statistically significant at 1 percent (p-value < 0.001) and positively related with the adoption of mobile banking in the study area. The R-value of 0.920 implies an associative relationship between mobile banking adoption and the identified factors. The value of R^2 represents that, 84.6% variation of the dependent variable can be explained by the independent variables. Also, the value of the F test is 50.221, which is significant at the5% level, indicating the overall fitness of the model.

After running the regression model, it can be concluded that in our study area, the adoption of mobile banking by the respondents was most influenced by the credibility factor, which means trustworthiness or believability. It has the highest regression coefficient 3.045, followed by ease of use, self-efficiency, usefulness, and social influence. This may be because when the security and trustworthiness of mobile banking services increase, it leads to greater adoption of the technology. The finding is consistent with previous studies by Nawaz and Yamin, 2018; Laforet and Li, 2005; Amin *et al.*, 2007 where the credibility of banking customers was found to be a significant influencing factor in to use of mobile banking services.

Ease of use, self-efficiency and usefulness were the other dominant factors that significantly affected the adoption of this technology. Results revealed that with 1 unit change in these factors, the adoption of mobile banking changes by2.115, 1.981, and 1.886 units, respectively. This was in line with many previous studies that investigated mobile banking adoption (Wang *et al.*, 2003; Amin *et al.*, 2007; Rasika *et al.*, 2016; Nawaz and Yamin, 2018), where ease of use, self-efficiency, and usefulness had a strong influence over the intention to use mobile banking.

On the other hand, social influence was the least affecting factor in adopting mobile banking compared to the other factors. This finding was contrary to the previous study of Amin *et al.*, 2007 and Dilukshi and Madana, 2016; but it is consistent with the study of Kleijnen*et al.*, 2004 who found social influence to be a significant factor in accepting mobile banking.

Conclusion

Mobile banking allows rural populations to have access to reliable financial services and instruments. Mobile banking has brought many unbanked or socially disadvantaged people into the financial system at low cost, spanning rural places. The present study discloses some key details about mobile banking adoption in rural areas. In the study area, bKash was the rural market leader, with Rocket a distant second, whereas other mobile banking service providers were unfamiliar to the respondents. The research also revealed that mobile banking's credibility is a major deciding factor in its adoption. That is to say, if MFS providers can improve the security and trustworthiness of their services, more individuals will be inclined to use them. To increase market competitiveness among MFS operators, promotional efforts are required. Steps might be implemented to encourage all MFS providers to promote their services to the rural people via leaflets, banners, radio, and other means. Farmers account for a sizable proportion of mobile banking customers in rural areas. However, the MFS operators have yet to develop a product or service specifically for farmers. Government policies may be implemented to encourage MFS operators to offer specialized services to farmers, such as agricultural credit disbursement, crop insurance, and saving schemes, among other things. The MFS providers can use the findings of this study to gather helpful information for improving the situation in rural areas and developing action plans for the growth of the mobile banking industry, encouraging more individuals from underserved areas to adopt this mobile-based technology.

Conflict of interest

The authors declare that there is no conflict of interest regarding the publication of this paper.

Acknowledgements

References

Amin H Baba R and Muhammad MZ. 2007. An analysis of mobile banking acceptance by Malaysian customers. Sunway academic journal 4: 1-12.

Bangladesh Bureau of Statistics 2015. Statistical Yearbook of Bangladesh, Ministry of Planning, Government of the People's Republic of Bangladesh, Dhaka.

Chen G. 2012. The Growth of Mobile Financial Services in Bangladesh [Blog post]. Retrieved from https://www.cgap.org/blog/growth-mobile-financial-services-bangladesh. Accessed on 29.06.2019.

Diluxshy R and Madana HBAHM. 2016. Factors influencing Mobile Banking adoption in Kurunegala district. Journal of Information Systems & Information Technology. 1(1): 24-32.

Financial Inclusion Insights. 2019. 2018 Annual Report: Financial Inclusion in Bangladesh. Retrieved from http://finclusion.org/uploads/file/reports/fii-bangladesh-wave-6-2018-report(2).pdf. Accessed on 21.06.2019.

Islam MS. Karia N. Soliman MSM. Fouji MH. Khalid J and Khaleel M. 2017. Adoption of Mobile Banking in Bangladesh: A Conceptual Framework. Review of Social Sciences. 2(8): 01-08.

Kaiser HF and Rice J. 1974. Little jiffy, mark IV. Educational and psychological measurement. 34(1): 111-117.

Kaiser HF. 1960. The application of electronic computers to factor analysis. Educational and psychological measurement. 20(1): 141-151.

Karma NG. Ibrahim SB and Ali AH. 2014. Key factors affecting mobile banking adoption among banks' customers in Sudan. International Journal of Liberal Arts and Social Science. 2(6): 112-122.

Kenova V and Jonasson P. 2006. Quality Online Banking Services. Bachelor's Thesis in Business Administration, Jonkoping University.

Kleijnen M Wetzels M and De RK. 2004. Consumer acceptance of wireless finance. Journal of financial services marketing. 8(3) 206-217.

Laforet S and Li X. 2005. Consumers' Attitudes towards Online and Mobile Banking in China. International Journal of Bank Marketing.23(5): 362-380.

Liza FY. 2014. Factors influencing the adoption of mobile banking: Perspective Bangladesh. Global Disclosure of Economics and Business 3(2): 199-220.

Nawaz SS and Yamin FBM. 2018. Sri Lankan customers' behavioural intention to use mobile banking: a structural equation modelling approach. Journal of Information Systems & Information Technology. 2(2)

Parthiban VN. 2016. Factors Influencing the Banking Customers to Adoption of Mobile Banking: A Study with Special Reference to Chennai City. Sumedha Journal of Management. 5(3): 93-101.

Rao GR and Prathima K. 2003. "Online banking in India." Mondaq Business Briefing. 11: 1-5.

Rasika DGL. Pathirana HPAP and Pathirana PV. 2016. Factors Determining the User Acceptance of Mobile Banking: with Special Reference to Sampath Bank PLC. Proceedings of 1stIntradisciplinary Conference of Management Researchers, Innovation, Integration and Inspiration towards Sustainable Future.

Singh R and Jain M. 2009. Metro trains and customer satisfaction: An empirical study in Delhi. Cabell's Management Directory 6(2).

The Independent. 2018. Mobile financial services come as a boon for rural people. Retrieved from http://www.theindependentbd.com/post/174171. Accessed on 3.07.2019.

Wang YS. Wang YM. Lin HH and Tang TI. 2003. Determinants of user acceptance of Internet banking: an empirical study. International journal of service industry management. 14(5): 501-519.