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Factors Affecting Internet Banking Adoption Behaviour in Bangladesh: A case study in Bangladesh

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Abstract

The succinct of this study are the factors that affect adopting internet banking behaviour in Bangladesh. We used SPSS software to analyse and concise the factors affecting to adopt internet banking. The SPSS helps to explore, Descriptive Statistics, Correlation, ANOVA, and Coefficient. All of this has been given in this paper.

Key Words*: Factors, Internet banking, Internet, Traditional banking, Bangladesh.

Introduction

Internet banking expresses that the way of banking where all the banking activities are done by the internet. It is also can be said online banking or electronic banking. In general, Customers or other financial institutions are conveying their financial activities by a particular banking web portal or website.

The world is introducing us to the tremendous technical system to use in numerous ways with the support of the internet. This internet made revolutionary radical changed in the information and transfer sectors. Nowadays it is using in the banking system. Internet banking plays a vital role in the banking sector all over the world. Every country's banking sector has provided internet banking to its customers. Same as Bangladesh provides internet banking services for their clients or customers. For this digitalization of banking customers smoothly can do their financial activities by using internet banking. Although it's a new experience for the people of Bangladesh but day by day they are adopted with it. On the other hand, people have some controversial issues on internet banking such as trustworthiness, security, self-dependent banking, etc. Internet banking would be regularly accepted when people will feel it is better than the physical banking system.

In Bangladesh, internet banking has been started since 2001. Now both public and private bank makes available internet banking system for all kinds of people. Every customer can properly handle their transaction by using internet banking. For this, they must have needed to use the internet as well as to learn the internet banking system. Also, the majority of our population are not familiar to use computer or smartphone where they get internet banking services. Apart from this, it is a new exposer to the people. In case people can adopt internet banking they will be more benefited from that than the traditional method.

Internet banking delivers many opportunities for the customer. It reduces other costs also. By internet banking, people can complete banking activities on their own at any time of the day from anywhere. Moreover, customers don't need to go to the bank for their financial activities. It also believes that all the financial activities are completed with errorless. Sometimes a businessman, company, firm, etc. need to make a huge transaction with their related field. It is quite a risk for them to complete such a big amount of transactions by traditional methods or physical banking system but now they can do this by internet banking.

Internet banking is an astonishing revolution of the human being. It is rapidly changing our country and society. Today's we can see new users of internet banking have been increased than previously. In the meantime, 1.7 million people are using internet banking in our country according to the data of Bangladesh bank as of January 2018. This is absolutely positive for our country.

The usage of internet banking in Bangladesh

Before 2001 Bangladesh had no internet banking service. The internet banking service has been taken place in Bangladesh after 2000 and from then it's growing. Lately, Bangladesh has 60 enrolled banks where 40 banks are providing internet banking services. From these 40 banks, there are 5 banks (Standard Chartered, Mutual Trust, City, Eastern, Brac) have taken internet banking services to the advanced level. They provided an app where the customer can sign in their accounts to make transactions, payments, and so on from their smartphone or computer.

For the last few years, popularity of internet bank has been boosting up. People maintain the transfer of funds, fixed deposit accounts, payment of school fees, buying airline tickets, utility bills payments, etc. The banking authority makes fast and secure access to their customer in the app.

The alteration from physical banking to internet banking in Bangladesh

In Bangladesh, The internet banking user is approximately 1.7 million whereas the population is 161.4 million. We can assume the scenario of internet banking in Bangladesh. The acceleration of internet banking is limited in Bangladesh. People are slowly moving internet banking.

Conventionally, it will not be going materialized so quickly to move internet banking in Bangladesh. Moreover, people have not much knowledge of internet banking. They already depended on physical banking, also having faith in it. In other words, customers who want fast service and appropriate information about financial issues that they can get to go to the bank. It seems quite easy rather operate an app. However, since customer perception involved

in internet banking so banks need to focus on their customer behaviour, the way they are communicating with clients.

The adoption of internet banking system in Bangladesh

Bangladesh is not becoming a developed country yet. The literacy rate of this country is 73.91% (2018). On the other hand, still, most people are not able to use the internet. But the internet and internet banking are related to each other. Most of the people of Bangladesh are using internet banking who is living in an urban area. Also, it's tending to like that only educated people are grabbing and try to cope with the internet banking system. The ratio of acceptance would be higher when a customer will feel more secure to use it. It is clear that some basic issues will be arising when people would be adopting this new opportunity. People's perception is like that they feel insecurity and definitely security is associated with the internet banking system. This is the main obstacle when customers think about internet banking service. Some other factors are included such as account, passcode, identification, personal data, transaction history, hacking, the privacy of personal information and many more.

Generally, the people who have a high income, well educated, making transactions daily are involving the internet banking system. It is indicated that persons individually motivated and taking advantage when necessary. It is not only just essential for high earners people but also it should be general users as like as traditional banking. In the meantime, customers can make their trust over internet banking those who are using it. Besides, in this competitive world banker wants to a remarkable change in the banking service. They believe it would be the most effective for their customer.

At a time in our country people have to set their mind to adapt internet banking system. Because, nowadays they are facing traditional banking is time killing services. It is true that when a customer going to take any banking service physically he or she has to wait for a long time. Even then the same service could be found in internet banking.

However, Bangladeshi people are accepting these services rarely because they still have a suspect in internet banking. On the other hand, banks are launching apps based services which are very difficult to understand most of the people in Bangladesh.

Literature Review

Mohammad Shamsus Sadekin , Shamima Nasrin Mukta , Md. Abdul Hannan Shaikh , (2019) demonstrates that internet banking is the modern expansion in the banking department which is the newest measurement to banking contacts by approving customers to execute the financial activities via the particular online portal. Their study was intended to investigate customer adoption in internet banking, privacy, personal information, and prospects of internet banking in Bangladesh which are straight correlated to the belief in internet banking.

Aisha Siddika, (2019) tryout the etiological association between customer's adoption and satisfaction with internet banking. The root purposes of that study were to appraise the internet banking system, procedures, and to observe the customer's adoption and satisfaction.

Md. Monirul Islam, (2015) prescribes that internet banking is contemporary technology constructed based on a computer system of providing banking service to the customer with low cost and speedy services. Even though Bangladesh was somewhat a late adopted but at present, most of the banks are providing internet banking services to their clients.

Methodology

The study concerns the factors affecting internet banking adoption behavior in Bangladesh and we tried to explore how customers are influenced by the variables to adapt the internet banking. We have considered eight variables among them seven variables are independent and one variable is dependent. The independent variables are Attitude (Att), Privacy (Pri), Internet Trustworthiness (ITr), Subjective Norms (SNs), Normative Structure (NS), Perceived Behavioural Control (PBC), Control Structure (CS) and dependent variable is Internet Banking (IB). We have been collected data through an online survey. Because of the COVID-19 pandemic, we did not have the opportunity to go out to do a physical survey. The 40 questionnaires were set for the survey and due to time limitations and other issues, only 50 responses have been taken to analysis this research.

Table 1: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
ATT	50	2.50	13.00	3.8500	1.41512
PRI	50	2.00	5.00	3.1050	.60838
ITr	50	1.50	5.00	3.5800	.65161
SNs	50	1.00	5.00	3.2900	.95879
NS	50	1.00	5.00	3.3900	.74086
PBC	50	1.00	5.00	3.9000	.92152
CS	50	1.00	5.00	3.8320	.78596
IB	50	1.00	5.00	3.2400	1.43655
Valid N (listwise)	50				

All the variables are included in the table where the number of responses for every variable is 50. The table shows a summary result of the descriptive statistics for this research variable. We got **minimum, maximum, mean,** and **standard deviation** for dependent and independent variables where ATT, PRI, ITr minimum value is 2.50, 2.00, 1.50, and rest of other variables minimum value is the same. The maximum value is similar for every variable except for ATT 13.00. We found the highest mean value for the variables of ATT, PBC, CS which is 3.8500, 3.9000, and 3.8320 the variable of ITr has a medium mean value 3.5800 and other than PRI, SNs, NS, IB has the lowest mean value respectively 3.1015, 3.2900, 3.3900, 3.2400. The variable of PRI and ITr has a medium standard deviation .60838 and .65161. Remaining other variable has the highest level of standard deviation.

Table 2: Correlations

		ATT	PRI	ITr	SNs	NS	PBC	CS	IB
ATT	Pearson Correlation	1	.050	.220	.089	.082	.274	.333[*]	.287[*]
	Sig. (2-tailed)		.731	.125	.538	.572	.054	.018	.044
	N	50	50	50	50	50	50	50	50
PRI	Pearson Correlation	.050	1	.429[**]	.410[**]	.360[*]	.192	.260	.198
	Sig. (2-tailed)	.731		.002	.003	.010	.182	.069	.168
	N	50	50	50	50	50	50	50	50
ITr	Pearson Correlation	.220	.429[**]	1	.501[**]	.504[**]	.583[**]	.488[**]	.167
	Sig. (2-tailed)	.125	.002		.000	.000	.000	.000	.246
	N	50	50	50	50	50	50	50	50
SNs	Pearson Correlation	.089	.410[**]	.501[**]	1	.778[**]	.249	.220	.141
	Sig. (2-tailed)	.538	.003	.000		.000	.081	.124	.329
	N	50	50	50	50	50	50	50	50
NS	Pearson Correlation	.082	.360[*]	.504[**]	.778[**]	1	.291[*]	.279	.013
	Sig. (2-tailed)	.572	.010	.000	.000		.040	.050	.927
	N	50	50	50	50	50	50	50	50
PBC	Pearson Correlation	.274	.192	.583[**]	.249	.291[*]	1	.784[**]	.080
	Sig. (2-tailed)	.054	.182	.000	.081	.040		.000	.580
	N	50	50	50	50	50	50	50	50
CS	Pearson Correlation	.333[*]	.260	.488[**]	.220	.279	.784[**]	1	.351[*]
	Sig. (2-tailed)	.018	.069	.000	.124	.050	.000		.012
	N	50	50	50	50	50	50	50	50
IB	Pearson Correlation	.287[*]	.198	.167	.141	.013	.080	.351[*]	1
	Sig. (2-tailed)	.044	.168	.246	.329	.927	.580	.012	
	N	50	50	50	50	50	50	50	50

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Here we are considering *P= 0.05*

The correlation analysis defines a statistical analysis which prescribes the variation in one variable by the variation in another. The coefficient of correlation is an assessment of the potency of the relationship between the variables.

We used Person Correlation Coefficient to ascertain the strength and direction of the variables. The Person Correlation Coefficient carries values from -1 to +1.and when the Correlation Coefficient is 0, there is no relationship between the variables. Table 2 has been showing the correlation between the factors affecting internet banking adoption behavior in Bangladesh and the variables. Since we are taking P-value = 0.05 if any value can be found less than 0.05 we can identify the relationship between the variables and internet banking adoption behaviour in Bangladesh. According to the above table, we can see the person correlation value which has one (*) and Sig. is less than 0.05 or p< 0.05 so they are statistically significant. Also, we can see the person correlation value which has two (**) and Sig. is less than 0.01 they are statistically significant.

In this analysis, the correlation between the variable which is less than 0.05 would be statistically significant and the correlation between the variable which is greater than 0.05 would be statistically insignificant. When all the variables are correlating with themself, they are always a perfect positive correlation.

 First of all, we are correlating Attitude (ATT) with all other variables. When correlating (ATT) with PRI, SNs, NS we see a weak positive correlation and statistically insignificant, with ITr, PBC, IB a small positive correlation and IB is statistically significant other than insignificant, with CS an almost moderate positive correlation and statistically insignificant. We are correlating Privacy (PRI) with all other variables. When correlating (PRI) with ATT we see a weak positive correlation and statistically insignificant, with, PBC, CS, IB a small positive correlation and statistically insignificant, with ITr, SNs, NS an almost moderate positive correlation and SNs is statistically significant other than insignificant. We are correlating Internet Trustworthiness (ITr) with all other variables. When correlating (ITr) with ATT, IB we see a small positive correlation and statistically insignificant, with PRI, SNs, NS, PBC, CS a moderate positive correlation and statistically significant. We are correlating Subjective Norms (SNs) with all other variables. When correlating (SNs) with ATT we see a weak positive correlation and statistically insignificant, with PRI, ITr a moderate positive correlation and statistically significant, with NS a strong positive correlation and statistically significant, with PBC, CS, IB a small positive correlation and statistically insignificant. We are correlating Normative Structure (NS) with all other variables. When correlating (NS) with ATT, IB we see a weak positive correlation and statistically insignificant, with PRI, ITr, SNs, PBC, CS respectively an almost moderate, a

moderate, a strong, a small positive correlation and statistically significant. We are correlating Perceived Behavioural Control (PBC) with all other variables. When correlating (PBC) with ATT, PRI, SNs, NS we see a small positive correlation and statistically insignificant, with ITr a moderate positive correlation and statistically significant, with CS a strong positive correlation and statistically significant, with IB a weak positive correlation and statistically insignificant. We are correlating Control Structure (CS) with all other variables. When we are correlating (CS) with ATT, IB we see an almost moderate positive correlation and statistically significant, with PRI, SNs, NS a small positive correlation and NS is statistically significant other than insignificant, with ITr, PBC a moderate, a strong positive correlation and both are statistically significant. We are correlating Internet Banking (IB) with all other variables. When correlating (IB) with ATT, PRI, ITr, SNs we see a small positive correlation and ATT is statistically significant other than insignificant, with NS, PBC a weak positive correlation and statistically insignificant, with CS an almost moderate positive correlation and statistically significant.

Table 3: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.565[a]	.319	.205	1.28059

a. Predictors: (Constant), CS, SNs, ATT, PRI, ITr, NS, PBC

The above table shows the model summary of this research. We know that the range of value of R from -1 to +1. Here, **R-value** is .565 which means there is an almost moderate relationship between the dependent and independent variables. In addition, the **Adjusted R Square** is .205 which means the seven independent variables (CS, SNs, ATT, PRI, ITr, NS, PBC) can explain 20.5% factors affecting internet banking adoption behavior in Bangladesh.

Table 4: ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	32.243	7	4.606	2.809	.017[a]
	Residual	68.877	42	1.640		
	Total	101.120	49			

a. Predictors: (Constant), CS, SNs, ATT, PRI, ITr, NS, PBC

b. Dependent Variable: IB

The ANOVA table shows **F- test** value is 2.809 and **Sig.** = .017 so here we got the model is statistically significant since **P-value** is less than 0.05 or $P < 0.05$

Table 5: Coefficients

| Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.493	1.307		.377	.708
	ATT	.188	.138	.186	1.365	.180
	PRI	.173	.350	.073	.493	.625
	ITr	.249	.408	.113	.610	.545
	SNs	.435	.317	.290	1.374	.177
	NS	-.657	.405	-.339	-1.623	.112
	PBC	-.877	.350	-.563	-2.508	.016
	CS	1.255	.391	.687	3.211	.003

a. Dependent Variable: IB

The coefficient table provides **t-test values** and resembling **Sig. values** of all the independent variables. As we can see from the table, two variables PBC and CS are significant since their Sig. value is less than 0.05. On the other hand, ATT, PRI, ITr, SNs, NS value has greater than 0.05 so they are insignificant in the model, which suppose that these five variables cannot be considered as significant for the factors affecting internet banking adoption behavior in Bangladesh. Moreover, in conformity with the table presenting coefficients values, the model equation can be vindicating by way of: **Behavioral affecting to adopt Internet Banking = 0.493 + 0.188 ATT + 0.173 PRI + 0.249 ITr + 0.435 SNs − 0.657 NS − 0.877 PBC + 1.255 CS.** In this model, PBC and CS are recognized as the significant factors where PBC has a negative and CS has a positive influence on the factors affecting internet banking adoption behavior in Bangladesh. Hence, it can be narrated that **H6** and **H7** are permitted. In addition, Rest of other variables the NS has negative and other than has positive influence on the factors affecting internet banking adoption behavior in Bangladesh but they are insignificant variables. So, they are unsupported.

The elaborate anticipation of factors that influence a customer to adopt internet banking

In Bangladesh, The banks have been transforming the way of transaction or banking services as other country's banking services are already on the internet-based. Technological improvement in the banking or information and transfer sector makes more opportunity and soft life for the people in the world.

This research has been an inference that the adoption of a customer in internet banking is influenced by Attitude, Privacy, Internet Trustworthiness, Subjective Norms, Normative Structure, Perceived Behaviour Control, and Control Structure. Attitude prescribes the reaction of a customer about internet banking as they prefer or not. Privacy prescribes that a customer or individual personal information that depends on them for shareable or non-shareable. Internet Trustworthiness defines how customers trust the internet because there could be a chance to leak out information or hack the account via the internet. Subjective Norms describe the belief that encourages a customer by a particular person to adopt internet banking. Normative Structure refers to obeying terms and condition behaviour that instructed by an institution or individual. Perceived Behaviour Control means that customer's perception with their capability to adopt internet banking and Control Structure indicates that customers have the right to make their own decision whether they adopt internet banking or not.

A framework of how people impact on adopting internet banking

Attitude
Privacy
Internet Trustworthiness
Subjective Norms
Normative Structure
Perceived Behavioural Control
Control Structure
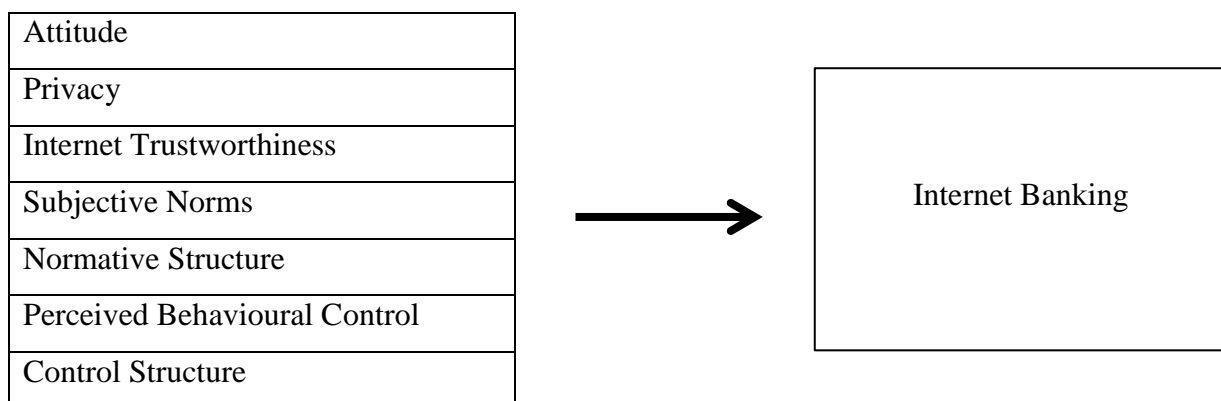
→ Internet Banking

Some other factors which are affecting people to adopt internet banking

› *Time and cost saving banking*

Internet banking is anywhere accessible banking. It reduces time and cost as well. Internet banking can be used at home, car, office, and restaurant. In physical banking or traditional banking services, customers make a queue which takes more time. But internet banking is smooth and stress-free banking.

› *Self-operating banking*

Everyone wants to do their financial work by oneself. As bank authority is provided app-based banking so that customers can operate their banking by themselves and internet banking is self-operating that makes customer satisfaction because the only customer knows their transaction history as well as personal information.

› *24/7 service banking facilities*

Internet banking is 24 hours and 7 days of banking. Customers have to face government holidays and also weekend but internet banking gives the 7 days banking facilities.

› *Personal and secure banking*

Internet banking ensures secure banking because when customers sign in their account they will get a one-time password (OTP) which would be valid for 30 minutes. Without OTP the account cannot be open.

Conclusion

The aim of this study is looking for the factors that affecting people to adopt internet banking behaviour in Bangladesh. There has been enormous paper and articles are published based on internet banking or influencing people on internet banking. Only few amounts of papers are trying to visible the factors to adopt the internet banking from the perspective of Bangladesh. Bangladeshi people are more convenient with the traditional banking. As internet banking is connected to the internet, at first Bangladesh government should reach the internet in every hand. Moreover, the customers have to be knowledgeable about online system and internet. Even though people can understand the advantage of internet banking but still they don't have self-confidence about internet banking. Because some relevant issues arise to their mind and privacy and security are one of them. In this competitive world or technological era, people must convert themselves with it. Besides, internet banking makes job opportunities. Furthermore, internet banking helps in the growth of the country's economy. Internet banking alleviated costs. Bangladesh in not advance in the technological country the literacy rate is at the peak level. People have to be an adaptation to technology. However, internet banking is growing up in Bangladesh day by day. This growing up will make a change in people's minds to adopt internet banking.

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