

Customers' Adaption and Satisfaction with Internet Banking of Agrani Bank Limited

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ABSTRACT:

This study experiments the causal relationship between customers' adoption and satisfaction with internet banking of Agrani bank limited using primary and secondary data. Internet banking is modern technology based computerized system of providing banking services to client with low cost and fast services. Internet banking services not only can originate new competitive advantages, it can improve its relationships with customers. SPSS software is applied to estimate the linear regression to investigate the relationship. There are five independent variables and one dependent variable. These variables have been tested in internet-banking to explore the relationship between service quality and the customers' satisfaction. The data were gathered through survey interview by a structured questionnaire (including Bank Manager and IT professional). The main objectives of this study are to evaluate internet banking structure, operations and to examine the customers' adoption and satisfaction in Agrani Bank. We also implement the ANOVA and Coefficients technique to examine the causal relationships among the variables.

Keywords: Customer's Adoption and Satisfaction, Linear Regression Model, ANOVA, Coefficients, SPSS Software.

1. Introduction

In present days, money is preached all over the world. We cannot go without money. Due to globalization, technological advances and other factors, money is circulating everywhere. Financial institutions, mainly banks play a centric role in matching a depositor and lenders, channeling money and making the economy more efficient. Banks in Bangladesh play a significant role compared to other financial institutions.

Since the oncoming of internet, the large planet has become a smaller one. The internet banking has been improving and gaining ground all over the globe. It has placed enormous impacts on business sectors. Remarkable development in ICT (Information and Communication

Technology) has introduced a global revolution in banking sectors. Amongst the 11 government and specialized banks which are being operated in Bangladesh, Agrani Bank has an identical position in the minds of clients and regulatory bodies.

Global financial crisis, bankruptcy, stock market crash, ups and downs situation and other factors affected the banking industry. So, banks should place themselves at an incomparable place in the minds of the customers by offering attractive offers such as higher interest rates or by offering great service to the customers. Services include financial advice, improve internet service, flexible rates or dates of repayment etc. Internet banking is a service offered to the customers which includes viewing the balances on accounts, checking the transactions, withdrawing money, downloading useful information, transfer of funds, paying third parties, making loan applications etc. from a secured website of the bank. Internet banking can offer speedier, quicker and dependable services to the customers for which they may be relatively satisfied than that of the manual system of banking. Because manual banking system is huge time consuming, people choose to have the services of internet banking.

Internet banking contributes to reduce the cost of retail transactions and increase the efficiency of the banking services and payment systems nationally and internationally. Because of internet banking we can send money from one place to another in a moment. Internet banking provides 24-hours-a-day and 7 days-a-week access to banking services and make available current information to users. Internet banking system not only generates latest viable return, it can give its better dealings with customers. Internet banking has revealed a new field of competition for banks. To operate online an individual needs the customer number, password and specific website. Online banking has been started in the 1980s but it is relatively a new concept in the perspective of Bangladesh. At the same time the banking process is becoming shorter, faster and easier. Customers' satisfaction is positively related to internet Banking. Agrani bank use T-24 software to operate their internet banking system.

Internet banking is developing rapidly in Thailand, Malaysia, Singapore and Philippines (Mia et al 2007). It exists in Bangladesh in the form of ATMs, mobile banking and internet banking. Internet banking exists only on the internet, the global system of computer networks. Most recently the internet has been added with the banking services with the previous form of automatic teller machine and provide better services with lower cost to both customers and banks. At present, people are very often embarrassed of doing any banking function with most of

the bank of Bangladesh through online. They still follow the traditional paper-based/manual banking system. It then becomes difficult to perform even a simple financial service such as checking account, transferring balance, withdrawing money, paying third parties. Therefore, the existing banking system in our country is terrible, slow and not reliable. It, in one hand, fails to face with the customers demand and, on the other hand, causes some significant losses both for the banking authority and customers. Internet banking, therefore, solves the above problems.

The further study is being carried out so that this can help ease the services of internet banking in future. Customers identify important issues and variables that affect adoption of internet banking services and also identify the relative importance of each variable.

2. Literature Review

Online banking is the fastest growing service that banks can offer in order to gain and retain new customers (Moody, 2002). Pikkarainen, Karjaluoto, and Pahlila, (2008) defines internet banking as an “internet portal, through which customers can use different kinds of banking services ranging from bill payment to making investments”. With the exception of cash withdrawals, internet banking gives customers access to almost any type of banking transaction at the click of a mouse (De Young, 2001).

Arunachalam and Sivasubramanian (2007) argue that internet banking is where customer can access his or her bank account via the internet using PC or mobile phone and web-browser. Easingwood, C. J. and Storey, C. D. (1993) predicted that 87% of community banks would offer internet banking in 2003 to meet consumers’ needs, and asserted that, internet banking has advantages for banks to maintain opposition, to save costs, to enhance mass customization, marketing and communication activities, and to maintain and attract consumers.

Egwali Annie Oghenerukevbe, D.M.E. (2008) stated that the internet banking serves also as gateways offering identification and authorization services to a number of third party service. Routray (April 2008) stated that mobile and wireless communication devices are becoming enablers for organizations to conduct business more effectively and efficiently.

Hua (2009) conducted an experiment to investigate how users’ perception about online banking is affected by the perceived ease of use of website and the privacy policy provided by the online banking website. Wise and Ali (2009) argued that many banks in Bangladesh want to invest in

ATMs to reduce branch cost since customers prefer to use them instead of a branch to transact business. The financial impact of ATMs is a marginal increase in fee income substantially offset by the cost of significant increases in the number of customers' transactions. The increase translates into improved customer loyalty that results in higher customers' capacity and growing organization value. The summary of the different studies on internet banking, online banking, internet banking in Bangladesh and other countries that could be made available is as follows: The Technology Acceptance Model was developed by Davis with the objective to provide an explanation of users' acceptance and usages behavior across a variety of end-user computing technologies.

Annavarjula, M. and Beldona, S. (2010) in a study shows that there is no significant difference in facilities determining the customers' usage of internet banking services of public-sector, private-sector and foreign banks in India. Baten, A.M. (2010) conducted a study using Technology Acceptance Model (TAM) and considered factors were performance expectancy, effort expectancy, social influence, facilitating condition, trust, behavioral intentions. The study showed that self-efficiency and trust are not related positively with the intention towards online banking while perceived ease of use influences the intention towards online banking.

Annavarjula, M. and Beldona, S. (2010), in a study found out the problems and prospects of mobile banking in Bangladesh. As to adoption, about 55% people feel they should use it and 45% people do not feel to use mobile banking according to the survey. Hasan conducted an exploratory research and found that Bangladesh, as a developing country, is far behind to reach the expected level in global banking system. The results showed that e-banking provides several advantages to Bangladeshi banking sector. This study also observed that the Bangladeshi customers do not have enough knowledge regarding e-banking which is rendered by banking sector in Bangladesh.

According to Mia, Md. Abdul Hannan, Rahman, Mohammad Anisur, Debnath, Nitai Chandra, the ideas of internet banking are as follows:

1. You do not need purchase any software, store any data on your computer, back up any information, such all transactions occurred on the bank account; these are served over the infrastructure of the internet.
2. You will be able to conduct your banking services anywhere you like but you need to have computer and modem, no matter where you have.

3. You can use the banking service 24 hours a day, 7 days a week, and 365 days a year. You no longer have to reconcile a bank statement or manually track your ATM and paper check.

In customer adoption's point of view, Chia Chi Lin. (2003), contend that the currently relevant factors determining the adoption of internet banking in Nigeria include the level of awareness or attention, the accessibility to computers and the Internet, convenience, privacy, costs, and the availability of knowledge and support concerning internet banking.

In customers' satisfaction point of view, Kim B.M, Widdows R, Yilmazer T (2006), said that service as an intangible good appeal differently to each customer and certain extent of service should be achieved in order to satisfy the customer and that the resulting commitment, loyalty and retention are critical indicators of customers' satisfaction.

3. Research Methodology

3.1. The Research Diagram

To conduct the study, which has given special proclivity on customer adoption and satisfaction of internet banking of Bangladesh, quantitative data has been collected. For the purpose of the study data has been collected from primary and secondary sources. This type of study will show a cause and effect relationship of the independent and dependent variables. So, a change in the independent variables (monthly income, maintaining account, using of automated teller machine, purchasing any product through the internet in the last 12 month, frequency of visiting bank) will change the dependent variable (customers' satisfaction). Customers' preferences is the first choice in this research diagram. Customers are treated as the king of the market place. The term Customers' satisfaction is frequently used in marketing sector. Customers have expectations of products and services in their minds.

If the products or services of a company fulfill the customers' expectations, they are satisfied and vice versa. If it exceeds the customers' expectations by a greater degree, they are more satisfied. In this research customers' satisfaction is the dependent variable which depends on the five independent variables mentioned above. The study will be a causal explanatory research because it explains the relationships among the independent and dependent variables and how a change in the independent variable changes the dependent variable. A causal explanatory research goes

further behind the indicated relationships between variables. It also indicates the direction of the relationship.

3.2. Sampling Method

Non-probability sampling technique is used for the research. To be more specific, purposive sampling is used because of a limited access to the customers who use internet banking at Agrani bank and other large number of customers use traditional banking in Agrani bank. Non-probability sampling (also known as non-random sampling) where not all numbers of the population has a chance of participating in the study is used and does not give all the individuals in the population equal chances of being selected.

3.3. Sample Size

The sample size is hundred (40 user and 60 non-user). The reason for selecting such a sample size is that Agrani bank has a very narrow customer base in internet banking. The bank is trying to enhance its online and internet banking services. So it is impossible to carry out research on a large sample of customers.

3.4 Sources of Data

Two sources of data are used in this research; one is primary and another is secondary sources of data.

i) Primary Sources

Conversations with bank employees and customers who have an account with Agrani Bank.

ii) Secondary Sources

Secondary source includes the website of Agrani bank limited, various newspapers and journals related to Agrani bank limited, annual report of Agrani bank.

3.5 Data Collection Method

A quantitative data collection method is used for the research. A structured questionnaire is designed. The questionnaire makes up questions of the independent and dependent variables.

3.6 Data Collection

The questionnaire is distributed among the 100 respondents (40 user and 60 nonusers of internet banking). The questionnaire was surveyed on local persons who have an account with Agrani bank. A few questionnaires were surveyed personally at the Agrani bank in Gopalganj branch. This was possible because of a prior notice from the branch officers of an arrival of a client. The rest of the survey was done by e mail. A survey by email is cheaper than other methods of surveying, easier to administer and free from all mistakes.

3.7 Econometric Model

The relationships between the independent and dependent variables can be specified as follows:

$$CS = \alpha_0 + \alpha_1 I + \alpha_2 MA + \alpha_3 UATM + \alpha_4 PPTI + \alpha_5 FV + \mu_1 \quad (1)$$

where, CS= Customers' satisfaction, I= Income, MA= Maintaining this account, UATM= Using an automated teller machine, PPTI= Purchasing any product through the internet, FV= Frequently visit, α_i = Parameter to be estimated. μ_i = Error term.

3.8 Data Analysis

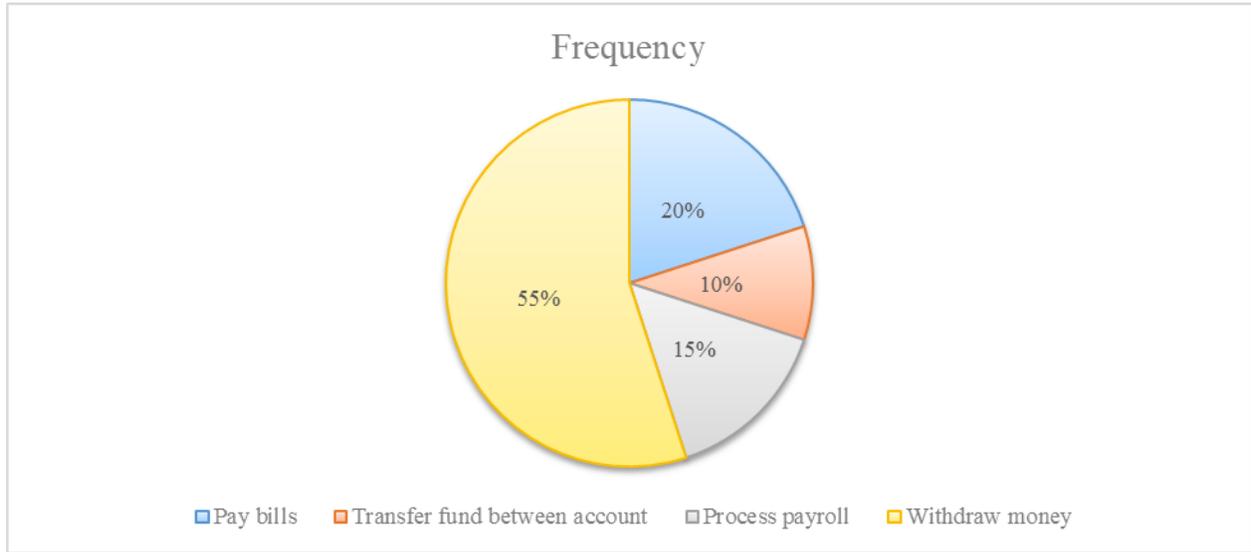
The data analysis will be done using an in-depth investigation of the data. Linear regressions are used to test the hypotheses. We use SPSS software and MS Excel are also used to carry out calculations in some cases.

4. Findings and Analysis

Table 1: Respondents' profile of online feature using regularly:

	Frequency	Percentage	Valid percentage	Cumulative percentage
Pay bills	8	20.0	20.0	20.0
Transfer fund between accounts	4	10.0	10.0	30.0
Process payroll	6	15.0	15.0	45.0
Withdraw money	22	55.0	55.0	100.0
Total	40	100.0	100.0	

Figure 1: Diagrammatic representation of respondents' profile

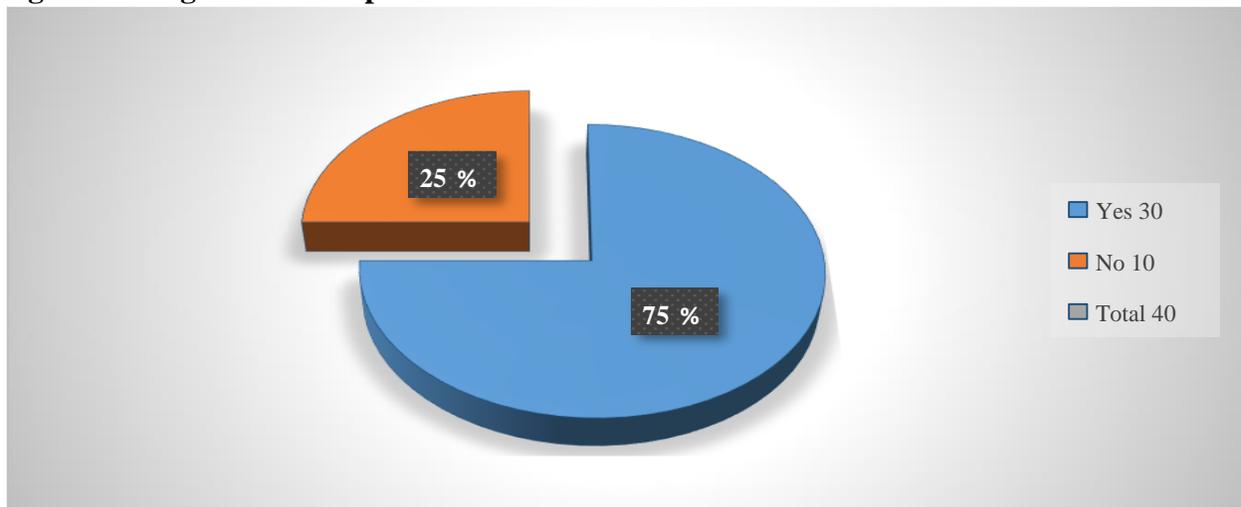


Most of the respondent use internet banking as means of withdrawing money 55%, bill pay 20% transferring fund between accounts 10% and remaining 15% users use it as a means of processing payroll.

Table 2: Respondents' response regarding whether internet banking is safer than any banking system.

	Frequency	Percent	Valid Percent	Cumulative Percent
Yes	30	75.0	75.0	75.0
No	10	25.0	25.0	100.0
Total	40	100.0	100.0	

Figure 2: Diagrammatic representation of table 2



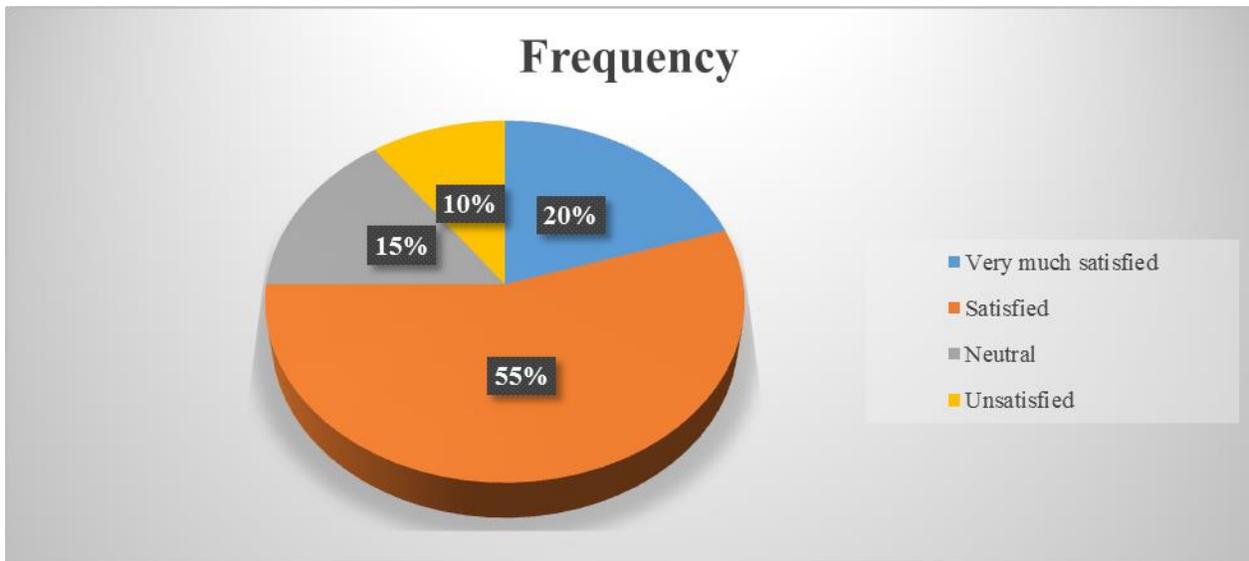
30 respondents said that they think internet banking is safer than any other banking system but

few respondent do not agree with this opinion while some people are uneducated; they do not understand internet banking properly and some respondent afraid if anybody hacked their account.

Table 3: Respondents’ profile - satisfaction with internet banking

	Frequency	Percent	Valid Percent	Cumulative Percent
Very much satisfied	8	20.0	20.0	20.0
Satisfied	22	55.0	55.0	75.0
Neutral	6	15.0	15.0	90.0
Unsatisfied	4	10.0	10.0	100.0
Total	40	100.0	100.0	

Figure 3: Diagrammatical representation of respondents’ profile – satisfaction with internet banking



22 respondents are satisfied with internet banking out of 40 respondents who are using internet banking which is about 55% of total respondents. 8 respondents are very much satisfied (20%). 6 respondents are neutral and finally 4 respondents are totally unsatisfied.

5. Regression Results

Table 4: Regression model summary

R	R squared	Adjusted R squared	Std. Error of the estimate
0.707	0.399	0.30	0.577

Predictors: (Constant), frequently visit, income (monthly), purchasing any product through the internet in the last 12 month, using an automated teller machine, maintaining this account. From the information in Table 4, we get the value of R square is 0.3999, so we may say that the model explains only 39.9% of the total variation. The rest $(100-39.9) = 60.1\%$ depends on other factors.

Table 5: Result of F Test

Model	Sum of square	d.f	Mean of square	F	Sig
Regression	4.309	5	.862	2.592	0.001
Residual	4.323	34	.333		
Total	8.632	39			

From Table 5, we see that the value of F statistic with 5 and 34 degrees of freedom is 2.592 which is asymptotically significant, because its significance value is 0.001 which is less than the p value 0.05. So, we may reject the null hypothesis that monthly income and purchasing any product through internet in the last 12 month do not have positive effect on customers' satisfaction. Therefore, the test is significant indicating that the two variables have positive effect on customers' satisfaction. Hence the customers' satisfaction depends on two factors (monthly income and purchasing any product through internet in the last 12 months).

Table 6: Result of ANOVA test

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	2.390	.791		3.023	.013
Income (Monthly)	.296	.172	.408	1.717	.010
Maintaining this account	-.385	.295	-.464	-1.305	.215
Using an automated teller machine	-.675	.325	-.447	-2.079	.058
Purchasing any product through the Internet in the last 12 month	1.271	.529	.769	2.404	.032
Frequently visit	.509	.266	.417	1.915	.078

From Table 6, we see that the effects of monthly income, purchasing any product through the internet in the last 12 month and frequently visit the branch has positive effect (here constant is

not calculated), and maintaining this account and using an automated teller machine has negative effect. Here two values are (0.01 and 0.032) which are less than 0.05 indicating significance at 5% level of significance. In order for the model to be meaningful, at least two variables must be significant at 5% level of significance. So, customers' satisfaction depends on this two factors (monthly income and purchasing any product through the internet in the last 12 month). And values for other three variables (.215, .058, and .078) are greater than 0.05. So, customers' satisfaction does not depend on these three variables.

6. Test of Hypothesis

6.1 Hypothesis 1

H_0 : Income of person of internet banking doesn't affect customers' satisfaction in the Agrani bank.

H_a : Income of person of internet banking affects customers' satisfaction in the Agrani bank.

Decision Rule: To reject the null hypothesis, the significance value must be less than the significance level of 5%.

Decision: The critical P-value is 0.05 because the confidence interval is 95% and they calculated P-value is 0.010. Here, calculated $p=0.01 < \text{critical } P=0.05$. So, at 95% confidence interval, the null hypothesis is rejected. Hence, income of respondent of internet banking affects customers' satisfaction in the Agrani bank.

6.2 Hypothesis 2

H_0 : Maintaining the account doesn't affect customers' satisfaction in the Agrani bank.

H_a : Maintaining the account affects customers' satisfaction in Agrani bank.

Decision Rule: To reject the null hypothesis, the significance value must be less than the significance level of 5%.

Decision: The critical P-value is 0.05 because the confidence interval is 95% and the calculated P-value is 0.110. Here, calculated $p=0.215 > \text{critical } P=0.05$. So, at 95% confidence interval, the null hypothesis is accepted. Hence, maintaining the account of internet banking does not affect customers' satisfaction in Agrani bank.

6.3 Hypothesis 3

H_0 : Using of ATM card doesn't affect customers' satisfaction in Agrani bank.

H_a : Using of ATM card affects customers' satisfaction in Agrani bank.

Decision Rule: To reject the null hypothesis, the significance value must be less than the significance level of 5%.

Decision: The critical P-value is 0.05 because the confidence interval is 95% and the calculated P-value is 0.215. Here, calculated $p=0.058 > \text{critical } P=0.05$. So, at 95% confidence interval, the null hypothesis is accepted. Hence, Using of ATM card of Internet Banking does not affect customers' satisfaction in Agrani bank.

6.4 Hypothesis 4

H_0 : Purchasing any product through the internet in the last 12 month doesn't affect customers' satisfaction in Agrani bank.

H_a : Purchasing any product through the internet in the last 12 month affects customers' satisfaction in Agrani bank

Decision Rule: To reject the null hypothesis, the significance value must be less than the significance level of 5%.

Decision: The critical p-value is 0.05 because the confidence interval is 95% and the calculated P-value is 0.032. Here, calculated $p=0.032 < \text{critical } P=0.05$. So, at 95% confidence interval, the null hypothesis is rejected. Hence, purchasing any product through the internet in the last 12 month of internet banking affects customers' satisfaction in Agrani bank

6.5 Hypothesis 5:

H_0 : Frequently visit the bank does not affect customers' satisfaction in Agrani bank

H_a : Frequently visit the bank affects the Agrani bank.

Decision Rule: To reject the null hypothesis, the significance value must be less than the significance level of 5%.

Decision: The critical P-value is 0.05 because the confidence interval is 95% and the calculated P-value is 0.002. Here, calculated $p=0.078 > \text{critical } P=0.05$. So, at 95% confidence interval, the

null hypothesis is accepted. Hence, frequently visiting the bank affects customers' satisfaction in Agrani bank.

7. Conclusion:

Empirical results and analysis of the findings proves that there is a relation between customers' satisfaction in internet banking and income, maintaining the account, use an automated teller machine, purchasing any product through internet last 12 month, frequently visit, as such null hypothesis is accepted and alternative hypothesis is rejected. Key objective of this study was to identify the factors affecting the satisfaction and adoption of internet banking by customers in Agrani bank. This investigation helps to explore corporate customers' internet banking adoption behavior and also how internet banking has changed the way of services provided by the banking sectors to their customers. Findings of the study would give attention to how Agrani Bank's customers are benefitted. The technology and the services must be cheap, easy to understand, and simple to use for the success of internet banking in Agrani bank. The research clearly indicates that those who use internet banking in Agrani bank are satisfied with the service provided by the bank.

The study also shows that people who are using manual banking prefer to switch to internet banking in the future. Due to technological advancement online banking is getting more popularity than traditional banking because it consumes less time. With online banking, customer won't ever have to worry about full access to their account because they believed that his/her account is safely protected. The charges for online banking service are not very high; rather it is very reasonable for customers to prefer it. However, for last 20 years it has been getting very much importance over the bank's customers and hopefully it will increase day by day after nurturing the services by the professional bankers. Therefore, it is believed that in near future, Agrani bank will be able to ensure the online banking use of its customers in better developed and organized way and enable itself to hold a lion's share of market in the banking sector.

8. Recommendation:

However, following suggestions are recommended to overcome the problems:

- i. Customer's service should be provided as quickly as possible;

- ii. Skilled employees should be appointed who have enough knowledge of handling modern technology and equipment.
- iii. Increasing the number of ATM booth.
- iv. Opening message service to the customer's mobile, when transferring and withdrawing money from the bank.
- v. T-24 software should be more developed.

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