Customer Satisfaction of Internet Banking in Bangladesh: A Case Study on Citibank N.A

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ABSTRACT

The concept of E-banking or internet banking has been practiced by Citibank N.A successfully over the years. E-banking applications enable an account holder to gain control over the cash positions. Customization is another benefit for both the bank and the user if e-banking is used instead of traditional banking. It makes it easier for the user to carry out day to day transactions. Citibank via CitiDirect® Online banking streamlines banking activities by giving authorized access to certain authorized users at every level of the organization to corporate accounts. An easy to use web interface allows this procedure. Citibank N.A has achieved success in this field of e-banking and has been named the Best Internet Bank by Global Finance in the previous years. The Study was carried out using questionnaires survey from clients and multiple regression with satisfaction factors are found using SPSS software. The results clearly indicate that internet banking plays an important role in customer satisfaction. A very significant task is to understand the risks of customer satisfaction of internet banking and rectify the errors wherever possible. The results show that the majority of the users of internet banking are satisfied with the internet banking. Citibank also needs to be aware of future threats of internet banking and introduce new techniques to combat hacking, phishing, pharming and other unethical practices. It is also evident that those who use traditional banking want to switch to internet banking so the prospect of internet banking is very prosperous for Citibank N.A and Bangladesh.

Keywords: Customer Satisfaction, Internet Banking, Citibank N.A, Bangladesh

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INTRODUCTION
In the present world money is circulated all over the globe. Globalization, technological advances and other factors make money circulating unimaginably. Financial Institutions mainly Banks play a pivotal role in matching a depositor and lenders and channeling money and making the economy more efficient. Although the history of Banking goes back to the 14th century in Europe but Banks are now everywhere. Banks in Bangladesh play a significant role compared to other financial institutions. Although there are different types of banks specialized for different purposes and with different brands and capital structure, they are regulated by standards such as the BASEL standards (to keep a minimum amount of capital, BASEL II etc.). Banks offer a wide range of products and services to appeal to different customers and be competitive in the market place. Amongst the 10 commercial banks which operate in Bangladesh Citi Bank N.A has a unique position in the minds of clients and regulatory bodies. The Company is a part of the CITI Group which was founded in 1812 and operates in more than 104 countries worldwide.
However the competition in the banking industry has intensified more than ever before. Global financial crisis, stock market crash, recessions and other factors affected the banking industry. So banks should position themselves at a unique place in the minds of the customers by offering attractive offers such as higher interest rates or by offering superior service to the customers. Services include financial advice, flexible rates or dates of payment, portfolio management etc.
Internet banking is a service offered to the customers which includes viewing the balances on accounts, checking the transactions, downloading useful information, transfer of funds, paying third parties, making loan applications etc from a secured website of the bank. Online banking has opened up a new field of competition for banks. To operate online an individual needs the customer number and password. Online banking has started in the 1980s but it is relatively a new concept in Bangladesh.
Customer satisfaction is positively related to Internet Banking. It is believed that customers are the king of the market place today. The competition in the banking industry is intensifying and it is the bank’s priority to satisfy its respective customer. The research aims to establish positive relationships between Internet Banking and Customer Satisfaction.

OBJECTIVE OF THE STUDY
- To analyze the level of customer satisfaction of internet banking in Bangladesh. To give a brief idea of internet banking
- To give the readers an idea of the internet banking operations of Citibank N.A Bangladesh
- To identify the relationships of the use of internet banking and customer satisfaction.

SCOPE OF THE STUDY
The paper gives the readers an idea of the financial giants Citigroup and Citibank N.A. It also makes the reader aware of the operations of Citibank N.A and the internet banking service of the bank in Bangladesh. However Citibank N.A only provides corporate banking and the study cannot be related to consumer banking.

STATEMENT OF THE PROBLEM
The researcher will investigate the impact of internet banking on customer satisfaction of the Clients of Citibank Bangladesh. There has been research in this field by many
researchers and for this reason the research has been carried out to analyze the factors of internet banking those results in customer satisfaction.

The Customers are treated as the king of the market place. For a bank like Citi with a very narrow customer base, customer satisfaction is the main priority. Citi Bank handles its online banking activities through CitiDirect®. CitiDirect® online banking is one of the largest technology investments of Citigroup which allows superior online banking facilities for their clients. The technology allows a web based banking platform to make banking activities easier for the clients and the employees. Allows performing your corporate banking functions in one security-protected place and provides you a centralized access to your account information in real time from a networked device. Online banking satisfies the customers because of the independent variables – convenience, speed, quick confirmation, user friendliness, trustworthiness and safety. The dependent variable is customer satisfaction. A conceptual framework will demonstrate the variables. Models on customer satisfaction will also be shown based on step wise regression by the use of SPSS software.

**PURPOSE OF THE STUDY**

The purpose of the study is to determine the factors of internet banking which has an impact on the customer satisfaction. Although Citibank N.A operates in all over the world but Citibank N.A. has a very narrow operation base in Bangladesh and limited to serving the financial needs of the leading businesses, corporate houses and offers services to local banks. To become successful the company has to provide superior client service to satisfy the customers. The research was conducted to show how the various qualities of internet banking is related to customer satisfaction.

In today’s market place customers are exposed to many commercials, logos, jingle, banner etc. The competition in the banking sector is also becoming crowded. Customers are treated as the king and most banks are almost in a state of a “Tug of War” in order to attract or retain customers. One thing that will make a particular bank extraordinary is satisfaction of the customers. Almost all banks are introducing new features on banking facilities such as notifications being sent to account holders if a new transaction is made, e-alerts etc .In such a competitive market place it is necessary for banks to make things easier for their customers. This research is aimed to show positive relationships between determinants of internet banking such as convenience, speed, quick confirmation, privacy, user friendliness, trustworthiness, and safety and customer satisfaction in the context of Citibank N.A Bangladesh.

**LITERATURE REVIEW**

**Online Banking**

Online banking is the fastest growing service that banks can offer in order to gain and retain new customers (Moody, 2002). The rise of Internet Banking is also due to its number of benefits for both the provider and the customer as well. From the bank’s perspective these are mainly related to cost savings (Sathye, 1999; Robinson, 2000) and Internet Banking remains one of the cheapest and more efficient delivery channels (see Pikkarainen et al., 2004). Arunachalam and Sivasubramanian (2007) content that Internet banking is where customer can access his or her bank account via the Internet using PC or mobile phone and web-browser. Ongkasuwan and Tantichattanon (2002) defined Internet banking service as banking service that allows customers to access and perform financial transactions on their bank accounts from their Computers with Internet connection. Kim et
al. (2006) 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 competition, to save costs, to enhance mass customization, marketing and communication activities, and to maintain and attract consumers. On-line, real-time banking services have now become a birth right of the customer as the customer demands the flexibility of operating an account in any branch of a bank irrespective of which branch the account was domiciled (Bank Away, 2001). E-service quality can be explained as an overall customer evaluation about e-service delivery in the marketplace which is virtual Santos, J. (2003)

Customer Satisfaction
A satisfied customer will repeat the purchase of the product and convey positive messages about it to others (Dispensa, 1997; Metawa and Almossawi, 1998). The complex nature of services coupled with the growing province of the service sector has increased the need for better customer satisfaction. Banking and financial services are an important part of the service industry (Mishkin, 2001). Customer satisfaction is typically defined as a post consumption evaluative judgement concerning a specific product or service (Gunderson, Heide and Olsson, 1996. The most widely accepted conceptualization of the customer satisfaction concept is the expectancy disconfirmation theory (McQuitty, Finn and Wiley, 2000). According to Saha and Zhao (2005), customer satisfaction is defined as a collection of outcome of perception, evaluation and psychological reactions to the consumption experience with a product/service. In other words, Saha and Zhao further defined customer satisfaction as a result of a cognitive and affective evaluation where some comparison standard is compared to the actually perceived performance. If the performance perceived is less than expected, customers will be dissatisfied. On the other hand, if the perceived performance exceeds expectations, customer will be satisfied.

Research Questions
- Does safety facilities of internet banking effect customer satisfaction in the context of Citibank Bangladesh?
- Does Convenience facilities of internet banking effect customer satisfaction in the context of Citibank Bangladesh?
- Does User-Friendliness of internet banking effect customer satisfaction in the context of Citibank Bangladesh?
- Does Quick Confirmation facilities of internet banking effect customer satisfaction in the context of Citibank Bangladesh?
- Does Privacy facility of internet banking effect customer satisfaction in the context of Citibank Bangladesh?
- Does Speed of internet Banking effect customer satisfaction in the context of Citibank Bangladesh?
- Does Trustworthiness of internet Banking effect customer satisfaction in the context of Citibank Bangladesh?

Hypothesis
- Safety facilities of internet banking effect customer satisfaction in the context of Citibank Bangladesh.
- Convenience facilities of internet banking effect customer satisfaction in the context of Citibank Bangladesh.
• User-Friendliness of internet banking effect customer satisfaction in the context of Citibank Bangladesh.
• Quick Confirmation facilities of internet banking effect customer satisfaction in the context of Citibank Bangladesh.
• Privacy facility of internet banking effect customer satisfaction in the context of Citibank Bangladesh.
• Speed of internet Banking effect customer satisfaction in the context of Citibank Bangladesh.
• Trustworthiness of internet Banking effect customer satisfaction in the context of Citibank Bangladesh.

**VARIABLES FOR THE RESEARCH**

The Dependent variable is customer satisfaction and the Independent variables are Speed, Convenience, Quick confirmation, User friendliness, Safety, Privacy, and Trustworthiness.

- **Speed**: Speed is a vital factor of internet banking as speed is the differentiating factor of manual and internet banking. People expect internet banking to be faster than manual banking.
- **Convenience**: Internet banking gives you the opportunity to do other tasks while you check your cash positions or account details on the net from your mobile phone or other peripherals such as tabs, laptop etc.
- **Quick Confirmation**: Quick Confirmation gives you a direct relief and gives you a notification via email whenever a payment or deposit is made. Internet banking does not involve humans in the banking process so quick confirmation gives the user a relief that the banking process is carried out successfully.
- **User-Friendliness**: An in-depth knowledge of the internet option is not required by the users. However certain security codes, steps and procedures are required and online assistance is there to assist users to help them solve problems.
- **Safety**: Safety issues are a matter of concern for users and internet features enables customers to carry out banking activities via mail or sms without much attention of the people surrounding the person. Encryption techniques, internal controls, security codes and proper web hosting measures are taken by the bank’s authority to avoid unethical practices.
- **Privacy**: The personal information of the users is kept very confidential and information are not disclosed. Security codes are required in various steps of the internet banking process to avoid security breaches.
- **Trustworthiness**: In order to secure information and avoid security breaches such as hacking, sniffing, tapping, spoofing, phishing and other unethical practices public and private encrypted keys are used. A trusted third party which is the certification authority is used for this reason.
- **Customer Satisfaction**: Kotler (2000) defined satisfaction as: “a person’s feeling of pleasure or disappointment resulting from comparing a product’s perceived performance (or outcome) in relation to his or her expectations”. Customers are treated as the king of the market place and there are a huge number of marketers who are trying to successful either by market share of by other measures such as profitability, market growth etc. The term Customer Satisfaction is frequently used in marketing. Customers have expectations of products and services in their minds. If the products or services of a company meet the customer’s expectations they are satisfied. The aim of most marketers in today’s market place is to delight the
customers. That is to exceed the customer expectations by a greater degree and delight them. In this research Customer Satisfaction is the Dependent Variable which depends on the independent variables mentioned above.

**Methodology**

**The Research Design**

The type of study that will be carried out to test the hypothesis and to answer the research questions will be a causal study. This type of study will show a cause and effect relationship of the independent and dependent variables. As shown in the diagram of the conceptual framework of the research there are seven independent variables and one dependent variable. So a change in the independent variables (speed, convenience, privacy, safety, quick confirmation, user friendliness, and trustworthiness) will change the dependent variable (customer satisfaction). So to investigate the research questions and test the hypothesis a causal study is required.

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 beyond than indication relationships between variables it also indicates the direction of the relationship. The research will be carried out once due to shortage of budget, time and convenience.

**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 Citibank, usually junior officers are sent to carry out banking tasks for the company. Selected clients are surveyed who were accessible for surveying and had expertise in the field of online banking.

**Sample Size:**
The sample size will be forty (20 user and 20 non-user). The reason for selecting such a small sample is that Citibank has a very narrow customer base in Bangladesh. But the narrow base of customers is profitable for the bank. So it is not possible to carry out research on a large sample of customers.

**Sources of Data:**
For collecting the data both primary and secondary sources are used.

**Primary Sources:**
- Conversations with bank employees and customers.
- Discussions with the employees of Citi Global Transactions Systems department Questionnaires

**Secondary Sources:**
- Citibank’s global and regional websites
- Various Publications and manuals

**Data Collection Method:** A quantitative data collection method is used for the research. A structured questionnaire is designed. The questionnaire will comprise questions of the independent and dependent variables. Each item will be rated on a likert scale of (1 to 5) which ranges on a continuum from strongly agree to strongly disagree.
Data Collection: The questionnaire is distributed among the 40 respondents (20 user and 20 non-users of internet banking). The questionnaire was surveyed by mail mostly as Citi has corporate clients who are not much accessible for doing the survey. A few questionnaires were surveyed personally at the branch of Citibank Gulshan 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 email. A survey by email is cheaper than other methods of surveying, easier to administer and free from errors.

Data Collection Instrument: A structured Questionnaire is used in this research to collect the data.

Data Analysis: The Data Analysis will be done using for an in-depth investigation of the data. Step-wise regression are used to test hypothesis and to find out individually which independent variable contributes to the dependent variable. MS Excel is also used to carry out calculations in some cases.

Questionnaire Design: The design of the questionnaire is prepared with close-ended questions. These questions were rated on a five point scale (from a continuum of Strongly Agree, Agree, Neutral, Disagree to Strongly Disagree). (The values are 1=Strongly Agree, 2= Agree, 3= Neutral, 4= Disagree, 5= Strongly Disagree.)

Findings and Analysis

Hypothesis 1
H0: Speed of internet Banking doesn’t affect customer satisfaction in the context of Citibank Bangladesh
Ha: Speed of internet Banking affects customer satisfaction in the context of Citibank Bangladesh

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 0.011. So, Calculated P=0.011 < Critical P=0.05
So, at 95% confidence interval, the null hypothesis is rejected. Hence, Speed of internet Banking affects customer satisfaction in the context of Citibank Bangladesh.

Hypothesis 2
H0: Convenience doesn’t affect customer satisfaction in the context of Citibank Bangladesh
Ha: Convenience affects customer satisfaction in the context of Citibank Bangladesh

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 0.603. So, Calculated P=0.603 > Critical P=0.05. So, at 95% confidence interval, the null hypothesis is accepted.
Hence, Convenience of Internet Banking does not affect customer satisfaction in the context of Citibank Bangladesh.

Hypothesis 3
H0: Quick Confirmation of Transaction doesn’t affect customer satisfaction in the context of Citibank Bangladesh
Ha: Quick Confirmation of Transaction affects customer satisfaction in the context of Citibank Bangladesh
**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 0.942. So, Calculated P=0.942 > Critical P=0.05. So, at 95% confidence interval, the null hypothesis is accepted. Hence, Quick Confirmation of Internet Banking does not affect customer satisfaction in the context of Citibank Bangladesh.

**Hypothesis 4**  
H0: User-Friendliness doesn’t affect customer satisfaction in the context of Citibank Bangladesh  
Ha: User-Friendliness affects customer satisfaction in the context of Citibank Bangladesh  
**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 0.026. So, Calculated P=0.026 < Critical P=0.05. So, at 95% confidence interval, the null hypothesis is rejected. Hence, User-Friendliness of Internet Banking affects customer satisfaction in the context of Citibank Bangladesh.

**Hypothesis 5:**  
H0: Safety of user doesn’t affect customer satisfaction in the context of Citibank Bangladesh  
Ha: Safety of user affects customer satisfaction in the context of Citibank Bangladesh  
**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. So, Calculated P=0.002 < Critical P=0.05. So, at 95% confidence interval, the null hypothesis is rejected. Hence, Safety of Users of Internet Banking affects customer satisfaction in the context of Citibank Bangladesh.

**Hypothesis 6**  
H0: Privacy of users doesn’t affect customer satisfaction in the context of Citibank Bangladesh  
Ha: Privacy of users affects customer satisfaction in the context of Citibank Bangladesh  
**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 0.407. So, Calculated P=0.407 > Critical P=0.05. So, at 95% confidence interval, the null hypothesis is accepted. Hence, Privacy of Users of Internet Banking does not affect customer satisfaction in the context of Citibank Bangladesh.

**11.7 Hypothesis 7**  
H0: Trustworthiness doesn’t affect customer satisfaction in the context of Citibank Bangladesh  
Ha: Trustworthiness affects customer satisfaction in the context of Citibank Bangladesh
**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 0.035. So, Calculated P=0.035 < Critical P=0.05
So, at 95% confidence interval, the null hypothesis is rejected.
Hence, Trustworthiness of Users of Internet Banking affects customer satisfaction in the context of Citibank Bangladesh.

**Multiple Regression Analysis**

By far, we have tested each of the variables individually with our dependent variables. But in reality all the variables work together to determine the customer satisfaction. So, it highly calls for multiple linearity tests of all the variables with the given dependent variable
H0: Customer Satisfaction is not a function of Speed, Convenience, Quick Confirmation, User Friendliness, Safety, Privacy, and Trustworthiness together.
Ha: Customer Satisfaction is a function of Speed, Convenience, Quick Confirmation, User Friendliness, Safety, Privacy, and Trustworthiness together.

**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 0.009. So, Calculated P=0.009 < Critical P=0.05
So, at 95% confidence interval, the null hypothesis is rejected.
Hence, Customer Satisfaction is a function of Speed, Convenience, Quick Confirmation, User Friendliness, Safety, Privacy, and Trustworthiness together.

**RESULTS AND DISCUSSION**

The Independent Variables (Speed, Convenience, Quick Confirmation, User Friendliness, Safety, Privacy, and Trustworthiness) were tested individually to find any linear relationship with the dependent variable which is Customer Satisfaction. After the tests were being run I have found that Speed, User friendliness, Safety and trustworthiness were the variables which were proven to be statistically significant, However considering the fact all the seven independent variables play a role in a macroeconomic environment together and test was also statistically significant. Since Speed, User friendliness, Safety and trustworthiness were found to leave a significant impact on customer satisfaction so Citibank N.A should focus more on improving these factors to improve the customer satisfaction.

![Existing user’s Satisfaction on Internet Banking](image-url)
The chart was constructed using the results of the questionnaire survey on the users of internet banking. The results of the survey show that 75% users are satisfied with the internet banking facilities. This should help Citibank N.A in retaining their customers. Citibank N.A has a very narrow customer base in Bangladesh so internet banking will play a significant role in achieving success for the company. Citibank N.A should try to maintain this in the long run.

Figure: Customers Willingness to switch to Internet Banking.

After carrying out the survey a study was carried out to find out how many non-users of the internet banking are interested to switch to e banking. The chart shows that around 70% users have a positive attitude towards internet banking. Citibank N.A can convert these non-users of internet banking to users by putting some marketing effort such as advertisement or other practices. The study also shows that only a minimum percentage of people have a negative attitude towards internet banking.

**Derived Model**
Customer Satisfaction = 1.844 + 0.398(Speed of Internet Banking).
Customer Satisfaction = 4.87 - 3.52(User Friendliness of Internet Banking).
Customer Satisfaction = 4.79 - 0.352(Safety of Users)
Customer Satisfaction = 4.18 - 0.334(Trustworthiness of System)
Customer Satisfaction = 5.95 + 0.16(Speed) + 0.08(Convenience) - 0.06(Quick Confirmation) - 0.24(User-Friendliness) - 0.35(Safety of Users) - 0.22(Privacy of Users) - 0.26(Trustworthiness of System).

**CONCLUSION**
The research clearly indicates that those who use internet banking features of Citibank N.A are satisfied the service. If the bank plans to expand the customer base of internet banking they should focus more on speed, user friendliness, and safety and trustworthiness factors of internet banking. Proper web-hosting is required for this reason. Customers should also be made aware of unethical practices like sniffing, spoofing, phishing, pharming and other malicious software which can be used by hackers. Attention should also be given in the encryption of the information which is exchanged between the users and the bank. The study also shows that people who are using manual banking prefer to switch to internet banking in the future. So the study is very beneficial for both Citibank N.A and Bangladesh to get insights about online banking relations with customer satisfaction. This study will also help other companies who plan to convert to click and brick or click-only companies in the future.
RECOMMENDATION

It is suggested that a better research on customer satisfaction of Internet banking can be carried out if more people become habituated with the internet in Bangladesh. At the current situation Bangladesh is slowly improving its information technology base. The connectivity of the internet of Bangladesh is expected to improve. A more useful and effective research can be carried out in the near future if connectivity and network improvements are witnessed by customers.

Moreover a study on a larger population sample is likely to give more accurate results. If Citibank N.A increases its customer base and a survey is made on a larger sample will give more accurate information. A research should be made by considering the users of internet banking across all the major banks that are operating in the country. This will help a particular bank to compare its satisfaction results with the industry average of customer satisfaction results of internet banking in Bangladesh. To know the trend of customer satisfaction of internet banking of Bangladesh a Longitudinal research should be carried out instead of a cross-sectional research to get an idea of the changes of customer satisfaction of internet banking.

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