Challenges and Prospects of Internet Banking in Bangladesh: Banker's (Service Providers) Point of View

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Abstract
Information technology has become a necessary tool for today’s organizations and banking industry is not an exception. Internet banking is modern technology based computerized system of providing banking services to client with low cost and quick services. Though Bangladesh was comparatively a late adoptee but now almost all the banks are providing internet banking to their customers. But what is striking is the lack of comprehensive study of internet banking covering organizational and operational sides and exhaustive study as to problem and prospects. Considering the importance of internet banking this study was taken up. The main objectives of this study were to evaluate internet banking structure, operations and to examine the bankers’ (Service Providers) perception towards internet banking in Bangladesh. There are 25 banks were selected for intensive study. As to bankers respondents i.e. internet banking service providers, 50 respondents taking 2 respondents (one Manager and another IT Professional) from each bank were selected for interview. This research work used extended form of commonly used Technology Acceptance Model (TAM) to verify the adoption and opinion of internet banking service providers.

Keywords
Internet Banking, Bankers, Technology Acceptance Model, Prospects and Challenges

I. Introduction
Internet banking is gaining momentum in Bangladesh. Though many different e-banking channels are in practice like online banking, debit card and credit card services, ATM services, home banking, internet banking, telebanking, mobile banking etc, here author has concentrated on main e-banking channel which is called internet banking. In the course of the study a number of challenges were also identified in adaptation and operation of the internet banking in Bangladesh. According to the view point of e-banking service providers the major challenges of internet banking in Bangladesh identified are i) bankers are not satisfied with the current infrastructure available for them to serve e-banking efficiently ii) bankers are not much satisfied with the current expert available for them to serve internet banking iii) weak awareness service and iv) The lacking and inadequate regulation and cyber law practices. Security is also a major concern and challenge of internet banking adoption in Bangladesh. Banking is highly regulated business but in the context of internet banking in Bangladesh, adequate legal framework, policy directions are found lacking. Internet banking is now a worldwide accepted phenomena and its development is striking. Thus, challenges identified by the service providers need to be addressed timely to improve the internet banking in Bangladesh.

II. Literature Review
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 user’s acceptance and usage behavior across a variety of end-user computing technologies [1]. Himani Sharma [2] found that the bankers are convinced that e-banking helps in improving the relationship between bankers and customers and that it will bring patent improvement in the overall performance of banks. In India Kaur, Jasveen and Kaur, Baljit, [3] 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. In Malaysia Hari Mohan [4], conducted a study and used 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. Chibueze [5] in Nigeria showed that electronic banking has improved returns on the equity of Nigerian banks. The study revealed that the adoption of electronic banking has positively and significantly improved the returns on equity (ROE) of Nigerian banks. On the other hand, it also revealed that internet banking has not significantly improved the returns on assets (ROA) of Nigerian banks. Mia, Rahman and Debnath [6] in an article observed that the latest development in marketing financial services by banks is online banking, where banks have now put themselves in the World Wide Web to take advantage of the internet’s power and access to cope with the accelerating pace of change in business environment. Irteza Hoque [7] made an analysis of the customer satisfaction of internet banking in Bangladesh with a focus on Citibank N.A. The study shows that around 70% users have a positive attitude towards internet banking. Aarti, [8] said that the Internet banking means a kind of self help financial services provided by the bank for its clients by the medium of internet, including accounting information query, fund transfer, online payment etc. Geetha K, [9] in a study in India determines the factors influencing the consumer’s adoption of e-banking in India and hence investigates the influence of perceived usefulness, perceived ease of use and perceived risk on use of e-banking. The results have supported the hypothesis that banks need to highlight the benefits of e-banking, make it easy to use, and enhance its security to improve consumers’ trust. Chian Son Yu [10] in a study in Taiwan cited that fast advances in the wireless technology and the intensive penetration of cell phones have motivated banks to spend large budget on building mobile banking systems, but the adoption rate of mobile banking is still underused than expected. Bahl Sarita, [11] in a work in India determined that security and privacy issues are the big factors in e-banking. If security and privacy issues are resolved, the future of electronic banking can be very prosperous.
Singh [12] conducted a study in Singapore and mentioned that Singapore is known as the fastest growing telecommunications nation in Asia. The result shows that customer attitude (CA), perceived usefulness (PU) and perceived ease of use (PEOU) are critical factors that affect the user acceptance.

Isaiah Lule [13], in a study in Kenya applied Technology Acceptance Model to examine the factors that influence the adoption of M-banking in Kenya. The analysis revealed that Perceived Ease of Use, Perceived Usefulness, Perceived Self Efficacy and Perceived Credibility significantly influenced customers’ attitude towards usage of M-banking.

Mihir Kumar Roy [14] mentioned in a research that the study investigates into online banking acceptance in the light of the traditional technology acceptance model (TAM), which is leveraged into online environment. The main findings are the perceived ease of use, security and privacy, and online information are significantly correlated with online banking uses of the customers.

Sohel Ahmed [15] 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 don’t feel to use mobile banking according to the survey.

Hasan [16] conducted an exploratory research and it finds that as a developing country, Bangladesh 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.

Jannatul Mawa Nupur [17] conducted a study concentrating on e-banking and customers’ satisfaction in Bangladesh. The result of the study showed that customers’ satisfaction on e-banking is above satisfactory level (with a mean value of 3.93 on a 5 point Likert scale). The customers are less satisfied on equipment, physical facilities, appealing materials, etc.

From the aforesaid literature review and evaluation of e-banking in developed and developing countries and in Bangladesh, it is evident that internet use and e-banking studies were conducted in different dimension and that sound and secure e-banking only can be achieved if a country can ensure good infrastructure and manpower. The study seeks to evaluate different aspect of the e-banking from structural, regulatory aspect, present status, aspects relevant to users, types of services provided, legal aspects, current practices, challenges and security issues etc.

III. Objectives of the Study

The prime objective of this study plans to fill up the gap in research in e-banking to identify the bankers’ opinion on e-banking they are providing in Bangladesh. In such a perspective the specific objectives of this study are:

- To evaluate internet banking system in Bangladesh and identify the prospects and challenges of existing Internet banking systems.
- To evaluate bankers’ opinion on adoption of internet banking by using Extended Technology Acceptance Model (ETAM).
- To provide policy recommendations to overcome the challenges based on bankers’ opinion.

IV. Research Methodology

In this research information collected from primary and secondary sources and has been used to identify the challenges and prospects of internet banking in Bangladesh.

A. Research Model

Though many different e-banking channels are in practice, here researcher has concentrated on main e-banking channel which is called internet banking and model used for the study is Extended Technology Acceptance Model (ETAM).

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**Fig. 1: Extended Technology Acceptance Model (ETAM) to Measure the Internet Banking Services**
B. Research Hypotheses and Description of the Model

Infrastructure: The measure of computer network, internet, hardware, software and its benefits to serve internet banking users, Knowledge: the measure of the IT knowledge and its benefits to serve internet banking users, Legal and Security: the measure of the legal and security issues to serve internet banking users, Socio Cultural: the measure of the socio cultural issues to serve internet banking users, Economic: the measure of the economic issues to serve internet banking users, Management: the measure of the managerial decisions to serve internet banking users. Other Factors: to measure the impact of length of online services, number of branches, number of hours to serve internet banking users.

Table 1: Hypotheses Retrieved from the Research Model

<table>
<thead>
<tr>
<th>Hypothesis</th>
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<tbody>
<tr>
<td>H1: Infrastructure is related positively with Internet Banking Services (IBS)</td>
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<tr>
<td>H2: Knowledge is related positively with Internet Banking Services</td>
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<tr>
<td>H3: Legal and Security matters are positively related with Internet Banking Services</td>
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<tr>
<td>H4: Socio-Cultural issues are positively related with Internet Banking Services</td>
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<tr>
<td>H5: Economic issues are positively related with Internet Banking Services</td>
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<td>H6: Bank Management is related positively with Internet Banking Services</td>
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<td>H7a: Year of Introducing Online Banking is positively related with Internet Banking Services</td>
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<tr>
<td>H7b: Number of Online Branches is positively related with Internet Banking Services</td>
</tr>
<tr>
<td>H7c: Hours of Online Services is positively related with Internet Banking Services</td>
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C. Sample Size

25 banks were selected randomly from the list of three types of banks, i.e. private commercial banks, public commercial banks and foreign commercial banks. Out of those 25 banks, 20 were from private commercial banks, 3 from state owned commercial banks and 2 from foreign commercial banks. As to selection of banker respondents i.e. internet banking service provider, bankers have been selected at random totaling 50 respondents taking 2 respondents (one Manager and another IT Professional) from each bank. The respondents for this study were bankers who are online internet banking services located in Dhaka and Chittagong. The survey period was from August 2013 to January 2014.

D. Questionnaire and Measurement

The designed questionnaire for bankers’ consists of two sections. The first section contain 8 general questions on Respondents Name, Bank’s name, number of branch, occupation designation, length of banks online services, number of online branches, number of hours to serve internet banking for users. Second section of the questionnaire consists of multiple measures of each of the 7 specific questions about the internet banking to find out the problems and prospects of adoption of internet banking. Each of this variable had 3 items, hence a total of 21 questions were developed. Likert 7 point scale was used to collect the opinion where scale range from 1 = Strongly Disagree, 2 = Quite Disagree, 3 = Slightly Disagree, 4 = Neutral, 5 = Slightly Agree, 6 = Quite Agree and to 7 = Strongly Agree. However, for simplicity, easy understanding of respondents and rank computation seven point bi-polar scale is widely used in social research. In such a bi-polar scale there is positive (agreement) and negative (disagreement) side with no comment or irrelevant in middle [18].

E. Statistical Analysis

Primary data were mainly used to assess the prospects of internet banking in Bangladesh, draw conclusions and make suggestions out of the study. Further, for analysis purposes statistical software SPSS 20.0 has been used to analyze the data with a view to measuring the usefulness of internet banking in the acceleration of banking sector in Bangladesh. Following various relevant statistical tests were used in analyzing data: a) Percentage and frequency of sample details b) Weighted rank computation by using seven points bi-polar scale c) Reliability testing d) Construct validity testing e) Simple regression analysis and f) Multiple regression analysis.

V. Result and Discussion

The main findings of the study are as follows:
1. The study revealed that most of the banks are having limited number of branches mainly in urban areas. But vast majority of the population residing in rural area are unable to avail the opportunities of internet banking.
2. The study reveals that the price of the internet connection in Bangladesh is higher compared to the neighboring countries.
3. All banks are not providing 24 hours services to customers due to power failure or sufficient fund crisis in ATM machines though huge potential internet banking customers are available in Bangladesh.
4. Hypotheses are considered supported when path coefficient (β) are significant with a p-value of less than 0.05 level. The p-value found from the results of the regression analysis for all the hypotheses are 0.000. The entire hypotheses framed for the study were found to be empirically accepted.
5. Finally, result of the multiple regression analysis performed on the research model found the overall model to be statistically significant. Multiple regression analysis gives the amount of variance (R²) accounted for in the dependent variable from a set of independent variables. Overall research model is statistically significant (F= 3.304 and p < 0.009) and all the independent variables together explain for 31.6% (R² = 0.316) variance on the dependent variable (Internet banking Use). It proofs that the research model is suitable to measure the intention adopting internet banking.
6. vi) The service providers perception on e-banking was studied with reference to six main variables viz., infrastructure, knowledge gap, legal and security position, socio-cultural aspects, economic issues, and management aspects. Opinion of the respondents reveals that service providers are not satisfied sufficiently about infrastructure which indicates there is need for development of infrastructure. Knowledge gap was also recognized warranting attention of top management for more training and expansion of skilled personnel availability. As to legal and security aspects less than satisfactory state of affairs has been perceived by respondents. Economic issues, however, seems to be not satisfactory i.e. respondents stress more economic and cost-effective measures. Moreover, as to managerial issues banker respondents opine some risk and inadequacy. All these reveal that banks perceived a
number of weaknesses in existing state of affairs in internet banking operations which warrant attention.

VI. Recommendation
The following recommendations and strategies may be applied to overcome the problems of internet banking in Bangladesh [19]: To provide more in-depth information about bankers’ opinion based on scores as computed through weights assigned based on degree of satisfaction/agreement or disagreement. A score of 3 would indicate strongly agreed position, 2 to 2.99 quite agreed positions and up to 1 at to some extent satisfactory position if the numbers are positive and vice-versa.

A. Infrastructure
The average score on internet connection available computed at 1.64, hardware software available at 0.92, and power or internet failure at 1.46. The average infrastructure position score based on all three variables works out at 1.34 which clearly depicts that the bankers are not satisfied with the current infrastructure available for them to serve e-banking efficiently.

B. Knowledge Gap
The score on limited trained Human Resources in Banks to run e-banking computed at 0.92, improper use of technology at 0.98, and Lack of Technological knowledge of managers and bank employees at 0.52. In such a context, results show that all 3 issues are positive and bankers opined that there is a knowledge gap in running e-banking. The average knowledge gap score based on all three variables works out at 0.81 which clearly depicts that the bankers are not much satisfied with the current expert available for them to serve internet banking.

C. Legal and Security Issues
The lacking and inadequate regulation and cyber law practices by the Govt. of Bangladesh and the average score computed at 1.54. Lacking or weak security measures and increased potential of fraud at 1.32 and Lack of strong trust environment about e-banking at 1.44. In such a context, all 3 results show that the bankers are quite agreed on the issues of weakness. It is important to pay attention on security and legal matters. The average security position score based on all three variables works out at 1.43 which clearly depicts a more or less poor position and thus warrant attention of concerned authorities.

D. Socio Cultural Issues
The average score of negative perception of e-banking services from users computed at -1.02, charging fees is a reason for the low customer’s coverage at -0.52 and English Language is a barrier to use e-banking at 0.00. In such a context, all 3 results show that the bankers are quite disagreed as to prevalent the socio cultural issues as a major deterrent to use e-banking.

E. Economic Issues
The average score on need for heavy investment regarding new infrastructures for e-banking at 1.22, Low level of Internet penetration in Bangladesh due to high costs at 1.30 and low ability to achieve communication equipment in Bangladesh at 1.64. In such a context, results show that all 3 variables on economic issues are quite agreed position. Relevant authorities must look after the matter to overcome the problems of e-banking. The average economic position score based on all three variables works out at 1.39 which clearly depicts a poor economic status which adversely affect expansion of e-banking in Bangladesh and thus warrant attention to concerned authorities.

F. Management Issues
The average score on e-banking management status. The score as to managerial risks for bank management worked out at 0.92, resistance of employees and managers regarding new technologies worked out at 0.62, and change and shift of managers and decision makers is an important obstacle worked out at 0.94. In such a context, results show that all 3 variables are positive score but ranking less than 2 for each which reveals that banker respondents slightly agreed on the existing weakness in managerial issues. The average managerial issues score based on all four variables works out at 0.83 which clearly depicts that some of the managerial areas still weak and this need to be improved.

VII. Conclusion
The advancement of the technology and communication has led to the introduction of a new delivery channel which is internet banking. Internet banking allows customers to conduct financial transactions and access to almost any type of banking transaction at the click of a mouse. The study in implication and policy recommendation has provided some suggestions with reference to safety in payment and minimization of risks through ensuring adequate legal and operational measures for safety, security and confidence of internet banking service provider. Technological advancement in the field of banking has given rise to internet banking ensuring quick, accurate, and convenient banking services favorably helping both bankers and customers. Bangladesh entered into internet banking quite late and showing a steady progress in this regard as to acceptance and operation of internet banking. This study evaluated internet banking structure, operations, problems and prospects in the context of Bangladesh with reference to other countries. The study found some flaws in the spheres of organization, infrastructure, legal and operational sides. The perception of bankers brings the weak areas to light. Findings of the study would give attention to flaws and take appropriate action to minimize the flaws for efficient operation of internet banking in Bangladesh. In fact in his global competitive and advanced technological development internet banking in Bangladesh need to be well organized with safety, security, customer and service providers’ satisfaction which in turn would benefit the economy, commerce, bankers, customers and the people in general. The success of the internet banking depends on the acceptance of the services by the clients of banks. So the users of the services should be made aware of it, services should be cost effective and financially attractive to the clients. The technology and the services must be cheap, user-friendly, easy to navigate, and simple to use for the success of internet banking in Bangladesh.

References


