

Online Banking Adoption – An Empirical study

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Introduction

Information technology plays a major role in shaping industries all over the world. Obviously, banks rely heavily on IT in conducting their businesses and spend huge amounts of money on such technology to reduce operation costs and gain competitive advantage over their rivals by offering customers better services through ATMs machines, telephone banking and more evidently in the last decade the online banking . Internet banking is the term used for new age banking system. Internet banking is also called as online banking and it is an outgrowth of PC banking. Internet banking uses the internet as the delivery channel by which to conduct banking activity, for example, transferring funds, paying bills, viewing checking and savings account balances, paying mortgages and purchasing financial instruments and certificates of deposits (Haque et al, 2009). The last decade has seen a profuse growth in internet banking transactions. What attracts customers to internet banking is the round the clock availability and ease of transactions. Studies estimate that internet banking still has a long way to go.

The objective of this study is to know how customers perceive using online banking in Hyderabad which will enable bank managers to understand the major factors that influence customers' decision to use or not use online banking. Understanding the symptoms of the problem of why there is a low rate of online banking usage can help managers to come up with a right solution to improve their IB service as well as to increase the rate of IB usage. The following chapter will show you some of the earlier studies that were conducted relevant to the study.

Online Banking

The Banking sector in India was also moving rapidly towards universal banking and electronic transactions, which were expected to change the way banking would be perceived in the future. The financial reforms that were initiated in the early 1990s and the globalization and liberalization measures brought in a completely new operating environment to the banks. It laid greater emphasis on technology and innovation and started using technology to provide better quality of services at greater speed. The bankers are now offering innovative and attractive technology-based services and products such as 'Anywhere Anytime Banking', 'Tele-Banking', 'Internet Banking', 'Mobile Banking', etc. to their customers to cope with the competition. ICICI was the first bank to introduce online banking in India. Online banking refers to the use of internet as a remote delivery channel for banking services. It means any user with a personal computer and a browser can get connected to his bank website to perform any banking activities.

Net banking can be categorized in following stages

- *Information Kiosks* : Traditional information on banking products and services
- *Basic I-Banking* : Infrastructure for internet banking and for accessing basic services like opening an account, paying utility bills and checking the balance
- *Virtual medium*: An official medium for financial transactions

Today more than 90 banks are offering net banking which provide endless benefits to its customers like

- Convenience
- Unaffected by boundaries of operational timings
- No geographical barriers
- Services can be offered at very low cost
- Cost per transaction through net banking is very low.

Online banking- Road Ahead

The segment of Online Banking services in a developing country like India is on an all-time high. The investors, normal customers and entrepreneurs are all enjoying present state of the Indian economy at its optimum best. This is mainly because of the online services ever since they were launched by the Indian banks and financial institutions. With the Online Banking services, a banking customer can issue an e-draft, make balance inquiry, order and even download account statement and even transfer funds on the same working day. This all has been made possible with these services and now the customer does not require being physically present to execute his banking tasks. A modern day banking customer, making use of the online banking services, must be vigilant enough to identify the authentic and phishing mails. Bank websites, these days offer protection by offering encryption and even virtual keyboard. These facilities let the banking customer to transact in a far safer and secured manner, without putting his or his data's confidentiality at the stake. It is highly advisable that a prospective online banking services' user must understand the pros and cons of such usage and takes all possible steps to ensure own safety. The segments of Online Banking services have been wide popularity these days with the introduction of customer-friendly policies by the Indian banking institutions. With favorable policies of the Indian government, RBI and banks, the present is bright as always and the future also seems bright just as it's past. It's high time for the bankers to make an easy way for its customers else they will be doing business with themselves.

Online banking challenges ahead

New techniques brings with it some issues, if these issues are resolved efficiently then that technology can prove boon for that area. Online banking is not an exception. It has also bring with it some issues, like awareness regarding Online banking, covering rural and semi-urban area under Online banking, widening the scope of Online banking, transparency and security. These issues must be tackled very carefully and wisely to compete in the emerging global order. Internet banking in India is in its earliest stage of development. Most of them are offering basic services only. Limited of banks are offering full services and of these most are private banks leading the market. The deregulation of banking industry coupled with the emergence of new banking technologies is enabling new competitors to

enter the financial services market quickly and efficiently. Indian internet banking faces following challenges

Proper understanding of the customer: Proper identification of their needs and wants. For this a massive survey must be undertaken may be in collaboration with other banks.

Need for transparency: In offering services as customers awareness has grown considerably. Breach of privacy: Online transactions enter straightaway into the records revealing the identity of customer. Thus black money cannot be transferred with ease.

Bandwidth: Though companies claim to offer good speed and high bandwidth, still there are problems in accessing high speed on net. Internet banking can go high only on the wings of proper infrastructure comprising telecommunications and bandwidth. Computer literacy in India is still very low and that is a barrier in fast acceptance of Internet banking. The mindset of the Indian customer needs to be changed. Customer has to be protected against being "net-jacked" that is, to be protected from fraud. Threats can be cracking login and passwords is a common way of fiddling with the data. Other issues like Denial of services, Data Diddling, Session hijacking etc also create problems while using online banking.

Strategies with their possible solutions to make online banking more popular
Statement: "Awareness regarding online banking"

It is imperative that more customers should be made aware of the service of internet banking. How it can be used and how it is cost effective should be made clear to the bank customers.

Possible Solutions: Banks should provide operational knowledge of Online banking with each their functions. Banks should arrange demo-fares or provide information to customers at counters. Posters consisting list of services provided by internet banking should be displayed at appropriate places

Literature Review

Kadir .H.A. et al; (2010) in his study tries to identify the effects of services offered by Malaysian banks through online media and ATMs on customer satisfaction. Two analyses are employed to fully reflect the effect of online and ATM services on their satisfaction level. The first one was service quality model which compares the difference between satisfaction and expectation level in order to find out which dimensions need to be improved. Second analysis was Two-Way ANOVA analysis which tried to identify the relationship between demographic factors and the study's outcome. Finally, the study determined which factors have the most effect and which factors have the least effect on customer satisfaction level.

Dixit.N. et al; (2010) in her study investigates on how the customers perceive the value of Internet banking over the traditional way of banking. Primary data was collected from 250 respondents, through a structured questionnaire. Statistical analysis, descriptive statistics and correlation were used to know the perceived

service quality of Internet banking (IB) and level of satisfaction between customers in India. The finding depicts many factors such as perceived value, perceived service quality; customer satisfaction and their loyalty have significant impact on a customer acceptance of Internet banking.

Amin Hanudin (2007) studies technology acceptance of internet banking among undergraduate students in Malaysia based on modified version of Technology Acceptance Model (TAM) and develops a technology acceptance model for internet banking. The results suggest that perceived usefulness (PU), perceived ease of use (PEOU) and perceived credibility (PC) had a significant relationship with behavioral intention. Results also suggest that PU and PEOU had a significant relationship with computer self-efficacy. The study is useful in providing the understanding of the TAM among undergraduate from Malaysians' perspective.

El-Sherbini et al ;(2007) investigated the customers' perspectives of internet banking, their perceived importance for it, usage patterns and problems rising on its utilization. The paper discussed the strategic implications of the research findings. Empirical data were gathered from bank customers in Kuwait to achieve the research objectives. The results showed the perceived importance of internet banking services by customers, current and potential use of IB services in Kuwait and problems perceived by bank customers in using IB. The researchers' main hypothesis tested that top five services considered relative important in Kuwait banks were "Review account balance", "Obtain detailed transactions histories, "Open accounts", Pay bills" and Transfer funds between own accounts".

Gan et al; (2007) conducted a research to examine consumers' choices between electronic banking and non-electronic banking in New Zealand. Internet banking is no longer a competitive advantage but a competitive necessity for banks. The findings in the paper show that the output from the logistic regression indicates that the service quality, perceived risk factors, user input factors, employment, and education were the dominant variables that influence consumers' choice of electronic banking and non-electronic banking channels.

Eriksson et al; (2005) has studied the technology of internet banking in Estonia, an emerging east European economy. A quantitative study was selected to obtain data regarding the usage of and attitudes towards the internet as a banking channel. The results suggested that internet bank use increases, as customers perceive it as useful. Hence, a well-designed and easy to use internet bank may not be used if it is not perceived as useful. They concluded that the perceived usefulness of internet banking is, for banks, a key construct for promoting customer use. They also suggested that models of technology acceptance should be re-formulated to focus more on the key role of the perceived usefulness of the service embedded in the technology.

Chan and Lu (2004) considered Perceived usefulness and perceived ease of use as essential factor regarding information technology acceptance. Perceived usefulness is the extent to which a person believes that using a particular system will enhance his or her performance perceived ease of use as simply describes the level of ease about using the new product/service, while self-efficacy describes the belief of an individual in their own

Wang et al; (2003) was interested to identify the factors that determine acceptance of Internet banking by the users. Using the TAM as a theoretical framework, this study introduces “perceived credibility” as a new factor that reflects the user's security and privacy concerns in the acceptance of Internet banking. The results strongly support the extended TAM in predicting the intention of users to adopt Internet banking. It also demonstrates the significant effect of computer self-efficacy on behavioral intention through perceived ease of use, perceived usefulness, and perceived credibility.

Sathye (1999) analyzed the factors affecting the adoption of Internet banking by Australian consumers. The findings suggest that security concerns and lack of awareness about Internet banking and its benefits stand out as being the obstacles to the adoption of Internet banking in Australia. He also suggests some of the ways to address these impediments. Further, he suggests that delivery of financial services over the Internet should be a part of overall customer service and distribution strategy. These measures could help in rapid migration of customers to Internet banking, resulting in considerable savings in operating costs for banks.

Results and Discussion

This research was conducted through survey of online banking users of Hyderabad in India. The respondents are users of Internet banking of leading Indian banks and foreign banks. Predominantly the users are State Bank of India (SBI) and Industrial Credit Investment Corporation of India (ICICI) Internet banking users. This is largely because of the penetration of Internet banking of these banks. The study employs primary data as well as secondary data. Secondary data was collected from different published sources. Primary data was collected by structured survey. The survey was created online and link sent to the respondents from Hyderabad using convenience sampling. In order to collect primary research data from consumers, Likert's 5-point scale, self-reported questionnaire was developed to measure customer adoption of online banking. The respondents, who were approached through email, were 300. Of these, 230 responses were received, giving a response rate of 76.0 percent. After data collection, we coded it in Excel latest version. For analysis purpose statistical tools Regression analysis was used.

Research Model

Technology Acceptance Model provides a conceptual framework for this study. In the technology context of use, the frequency of use and duration of experience with the technology have been found to capture the customer's use of technology. Customer Acceptance research model is developed on the basis of previous research studies and variables included are, perceived usefulness, perceived ease of use, perceived enjoyment, the amount of information, security and privacy, internet connection.

Hypothesis tested in the study

For analysis purposes the following Null Hypotheses were framed to find the inferences:

1. **H₀ -1:** There is no significant association between adoption to online banking and perceived usefulness.
2. **H₀ -2:** There is no significant association between adoption to online banking and perceived ease of use.
3. **H₀ -3:** There is no significant association between adoption to online banking and perceived enjoyment.
4. **H₀ -4:** There is no significant association between adoption to online banking and perceived trust.
5. **H₀ -5:** There is no significant association between adoption to online banking and Information available to consumers about online banking.
6. **H₀ -6:** There is no significant association between adoption to online banking and quality of the Internet connection.

Table1. Mean and standard deviation

| | Mean | Median | Standard Deviation |
|-----------------------|-------------|---------------|---------------------------|
| Customer Acceptance | 4.05 | 4.05 | 0.20 |
| Internet connection | 3.62 | 3.40 | 0.27 |
| information | 3.93 | 4.00 | 0.46 |
| Perceived Usefulness | 4.84 | 3.98 | 0.63 |
| Perceived ease of use | 3.70 | 3.73 | 0.27 |
| Perceived Enjoyment | 3.80 | 3.37 | 0.34 |
| Perceived Trust | 4.10 | 4.36 | 0.58 |

From the above table of sample mean, the highest mean of perceived usefulness (4.84) specifies that is the predominant factor which is affecting the customers to accept online banking. Internet connection has the lowest mean (3.65), means that it does not have much effect on customers' acceptance to online banking.

Table 2.Regression

| Regression Statistics | Co efficient | P Value |
|----------------------------------|--------------|---------|
| Statistic Adjusted R Square 0.48 | | |
| Customer Acceptance | 2.81 | 0.55 |
| Internet Connection | 0.08 | 0.05 |
| Amount of Information | 0.41 | 0.03 |
| Perceived Usefulness | 0.52 | 0.02 |

| | | |
|-----------------------|------|------|
| Perceived Ease of Use | 0.13 | 0.05 |
| Perceived Enjoyment | 0.31 | 0.04 |
| Security and Privacy | 0.45 | 0.03 |

For calculating the contribution of independent variable towards dependent variable, we adopted Multiple Regression. Table 2 confers the regression conclusions. Table shows by increasing 1 unit of perceived usefulness will increase customer acceptance by (0.52) units. It means this variable is having strong impact on customer acceptance. This result is significant at 3%. If 1 unit of security and privacy is increased (0.45) units will be increased of customer acceptance of online banking in Hyderabad. It shows this variable is having positive impact on customer acceptance with significant at 3%. Likewise if 1 unit of amount of information is increased (0.41) units of customer acceptance are increased with significance of 3%, showing a positive impact on customer acceptance.

By increasing 1 unit of perceived enjoyment (0.31) of customer acceptance is increased, which means this variable has an impact on customer acceptance of online banking. This result is significant at 4%. If 1 unit of perceived ease of use and 1 unit of internet connection is increased (0.13) and (0.08) will be increased respectively of customer acceptances which have a very small impact on customer acceptance of online banking. This result is significant at 4%. So if perceived usefulness and security and privacy are increased a lot of new customers will be shifted from traditional banking system to online banking system.

Conclusion

The Study concludes that majority of customers are accepting online banking culture because of many favorable factors. Analysis concluded that usefulness, security and privacy are the main perusing factors to accept online banking system in Hyderabad. The other factor is amount of information which is provided to the customers by different means like advertisement through print and electronic media about online banking is useful in customer acceptance of online banking in Hyderabad. These factors have a strong and positive effect on customers to accept online banking system. Lot of customers think that it is not easy to use online banking system and people want their money to be secure. This study suggests that organizations will better manage consumer attitudes to new internet service applications if they understand that such experiences involve a process of adjustment and learning over time, and not merely the adoption of a new technology. As such, there is still room for further investigation into the adoption of IB services. By using a longitudinal study in the future, we could investigate our research model in different time periods and make comparisons, thus providing more insight into the phenomenon of online banking adoption.

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