E-BANKING CHALLENGES AND OPPORTUNITIES IN THE INDIAN BANKING SECTOR

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KEYWORDS: Cyber Banking, Population vital statistics, low penetration

ABSTRACT
Cyber banking is a progressive technology in India but its endorsement is very low as 70 percent population belongs to rural areas and 30 percent reside in urban. Banks are investing huge amount of money to increase the diffusion of cyber banking therefore it is the need of time to know the real causes of its low penetration. In this paper an attempt has been made to know the objections which are facing by banks and also to find out the impact population vital statistics like Education, age, occupation and income. How they are influencing the adoption of cyber banking in India. To find out the impact of all these variables a structured questionnaire has been prepared through a systematic survey which was conducted at the NCR. The number of respondents were 300 belongs to heterogeneous population. The Chi-Square test was used to interpret the hypothesis the result illustrates population vital statistics impel the adoption of online banking.

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INTRODUCTION
The progress of E-banking, after the liberalization and globalization processes began since 1991, influencing the financial sector; particularly on the banking sector. The advancement has thoroughly and perceptibility revamps the operational environment of the banking. The E-commerce drastic change is completely alter the way of client banking, banks are providing different services cash deposits to cash withdrawals through electronic means therefore we can say number of electronic transactions are increasing the world is going to be a cyber world where each and everyone would be connected through Internet. The world is becoming a global market, characterized by economic interdependence. National boundaries have become less significant with the interlinked effect of technology, information flows and foreign investment mobility.

In past thirty years, operational efficiency of banks increased now the time taken by the banks in different transaction has been reduced with this advancement competition is also increased. Banks are interested to acquire more and more customer to increase their revenue and using different tools of technology to increase the number of their clients. E-banking is the service which the banks are providing now a day to provide 24X7 banking. The internet maneuver is means to build the long term relationship with their clients because the Reponses of the clients can be got immediately therefore banks are like a shops of different products banks are managing accounts of their clients, providing service of investment and advising clients where they have to invest, Banks are selling different insurance policy electronically with these facilities the number of repeatedly purchase of different products increased. In these days’ clients are not visiting the banks they are only using cyber banking for each transactions by that way the banks are able to reduce their operating cost also.

This research is an attempt to know the different objections which the banks are facing in the acceptance of cyber banking and also to depict impact various populations statistics like age, income, education, occupation.

2 REVIEW OF LITERATURE BASED ON RESEARCH WORK

The review of literature reveals the various research have been conducted so far related to population statistics and acceptance of e-banking therefore thoroughly banking literature has been reviewed.

Sournata, Mattila and Munnukka (2005), Al-Sabbagh and Molla (2004)- all explore the various inhibitors and drivers of electronic-banking adoption. They believe there are relatively few empirical analyses of the impact of electronic banking on customers. As Internet banking is a relatively new concept in banking service delivery, not many studies are available in Indian context. Most of the studies that the authors have gone through are not in the Indian context.

According to research work of Karjaluoto et al. (2002) found that Internet banking users in the Finnish market were generally highly educated and relatively young. Demographic factors affect online banking behavior. Almahmeed et al. (2008) conducted a research on all Kuwaiti and non-Kuwaiti banks. It was found that the awareness of Internet banking proved to be relatively high.
among business firms. The most frequently used services by the customers were: reviewing the account balance, obtaining detailed transaction histories, obtaining information about deposits, loan interest rates, transfer funds between company’s own accounts, transfer funds to other accounts within Kuwait, transfer funds to other accounts outside Kuwait and issuing standing orders.

Khurana (2009) studied the perception of Internet banking users through the relationship between population statistics of users along with the five independent variables, . responsiveness, reliability, efficiency, security of information and ease of use. It depicts there was no significant relation in between age, occupation sex on the use of number of banks operate by clients. It also depicted age has significant impact on the operational efficiency of clients. As regards reliability, customers had no trust in websites.

Mayiaki and Mokhtas (2010) shown in their research that there is no relation in between population statistics and choice of banks. It was also found that statistically there is a significant relationship between age and choice of banks. Selvam and Nanjappa (2011), in their study, examined customers’ awareness and satisfaction about e-banking of ICICI bank on the basis of vital statistics of the E-banking users. It depicted that college students are more awareness level compare to other education groups. The study revealed that awareness level of income group above 10,000 per month was high as compared to other income groups. It was shown that it also depend on the size of family. Sex is the crucial issues for the acceptance of internet banking. Shergill and Li’s (2005) depicted that women are more serious regarding the security issues compare to their male counterpar. Survey by Chung and Paynter (2002) privacy and security issues are crucial for the adoption of cyber banking. Perceived risk like theft of private information was concerning issues regarding the adoption of online banking (Black et al., 2002; Siu and Mou, 2005). Trust is important issues for the acceptance of e-banking and it was also depend upon the geographical connectivity (e.g., see Espiritu 2003) rural are more poor and not connected to technology therefore their adoption is low(Mills and Whitacre 2003). Geographical location is important parameter for the adoption of online banking (for general perspectives, see Greenstein and Prince 2006; It is concluded through the literature review that Population statistics have important parameters which are channelize the acceptance of E-banking.

Research Objectives

This study was conducted to know the impact of demographic parameters.

I. To identify the challenges those affect the customers to use internet banking.

II. To identify the challenges those affect the banks to launch internet banking services.

III. To identify the main and general challenges that affecting the internet banking.

IV. To identify the factors influences consumers to use internet banking.

V. To measure the relationship between factors (consumer demographic factors, Internet banking attributes, social influences) and the acceptance of internet banking.

VI. To examine the factors those discourage customers from using internet Banking

4. Hypothesis:

- H1: There is no relationship of population statistics on the endorsement of e-banking.
- H2: There is no relationship between socioeconomic characteristics and the acceptance of internet banking.
- H3: There is a difference between user and non-users with regard to their perception of internet banking.

5 Research Methodology

The different parameters related to respondents like age, sex, Income and occupation taken through the structured questionnaire and cross tabulation is given below. It is depicted the respondents complete profile who were using banking service in NCR region. To evaluate data collected and interpret it SPSS and Microsoft Excel was used.

The research has been conducted to determine the role of demographic factors in the acceptance of cyber banking.

Sample Size:

50 questionnaires have to response from four commercial centers (The ANSAL PLAZA, PACIFIC MALL, EDM MALL and GREAT INDIA PALACE) would be interviewed therefore 200 respondents from the commercial centers the 100 respondents who are professionals like Faculties and Parma companies therefore total number of 300 respondents responded the questionnaires.

6 Demographic Profiles of Respondents:

Analysis has been done through the demographic profile of the users of cyber banking than different statistical tools are used like Chi-square test. (Tables-1.1, 1.2, 1.3,1.4) representing the demographic profiles of the respondents.

Table 1.1 Gender Profile of respondents

<table>
<thead>
<tr>
<th>Respondents Profile</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Respondent</td>
<td>168</td>
<td>56%</td>
<td>132</td>
</tr>
<tr>
<td>Internet Users</td>
<td>72</td>
<td>60%</td>
<td>40%</td>
</tr>
<tr>
<td>Internet Non-users</td>
<td>96</td>
<td>53%</td>
<td>84</td>
</tr>
</tbody>
</table>

Table 1.2 Age Group of respondents

<table>
<thead>
<tr>
<th>AGE Group (table 6.2)</th>
<th>General Respondent</th>
<th>Internet users</th>
<th>Internet Non-users</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-14</td>
<td>41%</td>
<td>38%</td>
<td>32%</td>
</tr>
<tr>
<td>15-25</td>
<td>32%</td>
<td>32%</td>
<td></td>
</tr>
<tr>
<td>26-35</td>
<td>25%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36-45</td>
<td>18%</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>45-55</td>
<td>5%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>55-65</td>
<td>1%</td>
<td>1%</td>
<td></td>
</tr>
<tr>
<td>65-75</td>
<td>4%</td>
<td>5%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1.3 Education level of respondents

<table>
<thead>
<tr>
<th>Education level (table 6.3)</th>
<th>General Respondent</th>
<th>Internet users</th>
<th>Internet Non-users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postgraduate</td>
<td>55%</td>
<td>104%</td>
<td></td>
</tr>
<tr>
<td>Undergraduate</td>
<td>27%</td>
<td>11%</td>
<td></td>
</tr>
<tr>
<td>Highschool</td>
<td>18%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>3%</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 1.4 Income of respondents

<table>
<thead>
<tr>
<th>Income Group (table 6.5)</th>
<th>General Respondent</th>
<th>Internet users</th>
<th>Internet Non-users</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than `25000</td>
<td>19%</td>
<td>2%</td>
<td></td>
</tr>
<tr>
<td>`25000-34999</td>
<td>18%</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>`35000-44999</td>
<td>17%</td>
<td>16%</td>
<td></td>
</tr>
<tr>
<td>`45,000-54999</td>
<td>17%</td>
<td>32%</td>
<td></td>
</tr>
<tr>
<td>`55,000-99999</td>
<td>17%</td>
<td>44%</td>
<td></td>
</tr>
<tr>
<td>`100,000-199,999</td>
<td>18%</td>
<td>18%</td>
<td></td>
</tr>
<tr>
<td>`200,000-299,999</td>
<td>18%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>over `300,000</td>
<td>17%</td>
<td>4%</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7 Data Analysis and Interpretation

Chi-square test was used to establish the relation between the population characteristics on the adoption of e-banking.

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Chi-Square test was to know the significance relationship among different nominal parameters.

### Table 1.5 Age users & non users Cross-tabulation

<table>
<thead>
<tr>
<th>Age</th>
<th>Users &amp; Non Users</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-29</td>
<td>38</td>
<td>86</td>
</tr>
<tr>
<td>30-39</td>
<td>62</td>
<td>33</td>
</tr>
<tr>
<td>40-49</td>
<td>15</td>
<td>36</td>
</tr>
<tr>
<td>Above 50</td>
<td>5</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>180</td>
</tr>
</tbody>
</table>

### Table 1.6 - Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>18.974</td>
<td>5</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>19.454</td>
<td>5</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>858</td>
<td>1</td>
<td>.354</td>
</tr>
</tbody>
</table>

a. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 12.00.

The p of 0.000 which is less than 0.05 Table (1.6) implies that chi-square test is significant and indicates there is a relationship between the age and the adoption of internet banking.

### Table 1.7 EDUCATION * users and non-users Cross-tabulation

<table>
<thead>
<tr>
<th>EDUCATION</th>
<th>PG</th>
<th>Graduate</th>
<th>High School</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>USER AND NON USER</td>
<td>USER</td>
<td>104</td>
<td>11</td>
<td>4</td>
<td>120</td>
</tr>
<tr>
<td>Non-user</td>
<td>50</td>
<td>71</td>
<td>45</td>
<td>8</td>
<td>180</td>
</tr>
<tr>
<td>Total</td>
<td>154</td>
<td>182</td>
<td>56</td>
<td>12</td>
<td>300</td>
</tr>
</tbody>
</table>

a. 2 cells (25.0%) have expected count less than 5. The minimum expected count is 3.20.

The Chi-square is significant (p=0.000)(Table 1.8) indicating that there is a significant relationship between education level and the adoption of internet banking.

### Table 1.8 - Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>89.369</td>
<td>3</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>90.032</td>
<td>5</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>58.843</td>
<td>1</td>
<td>.000</td>
</tr>
</tbody>
</table>

b. 0 cells (0.0%) have expected count less than 5. The minimum expected count is 6.80.

The Chi-square is significant (p=0.000)(Table 2.0) indicating there is a significant relationship between the income and adoption of internet banking.

### Table 2.1 OCCUPATION * USERS & NON Cross-tabulation

<table>
<thead>
<tr>
<th>Occupation</th>
<th>USERS &amp; NON USERS</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed</td>
<td>92</td>
<td>93</td>
</tr>
<tr>
<td>Un-Employed</td>
<td>98</td>
<td>38</td>
</tr>
<tr>
<td>Pensioners</td>
<td>5</td>
<td>7</td>
</tr>
<tr>
<td>Self-Employed</td>
<td>24</td>
<td>34</td>
</tr>
<tr>
<td>Other</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>120</td>
<td>180</td>
</tr>
</tbody>
</table>

### Table 2.2 Chi-Square Tests

<table>
<thead>
<tr>
<th></th>
<th>Value</th>
<th>df</th>
<th>Asymp. Sig. (2-sided)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Chi-Square</td>
<td>35.780</td>
<td>4</td>
<td>.000</td>
</tr>
<tr>
<td>Likelihood Ratio</td>
<td>49.486</td>
<td>4</td>
<td>.000</td>
</tr>
<tr>
<td>Linear-by-Linear Association</td>
<td>5.137</td>
<td>1</td>
<td>.023</td>
</tr>
</tbody>
</table>

a. 3 cells (30.0%) have expected count less than 5. The minimum expected count is 2.80.

The Chi-square value is significant (p=0.000)(Table 2.2) which means there is a significant relationship between occupation and the adoption of internet banking.

### Table 3.0 (t-test) This sections tests the hypothesis that there is a significant difference between users and non-users with regard to their perception of relative advantage of internet banking.

### Table 3.0 Group Statistics

<table>
<thead>
<tr>
<th></th>
<th>internet users</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>work Style</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>users</td>
<td>120</td>
<td>4.6250</td>
<td>.67441</td>
<td>.06157</td>
</tr>
<tr>
<td></td>
<td>Non-users</td>
<td>180</td>
<td>2.6944</td>
<td>.89128</td>
<td>.06643</td>
</tr>
<tr>
<td></td>
<td>life</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>convenient users</td>
<td>120</td>
<td>4.1083</td>
<td>.60524</td>
<td>.05525</td>
</tr>
<tr>
<td></td>
<td>Non-users</td>
<td>180</td>
<td>2.6222</td>
<td>.95224</td>
<td>.07098</td>
</tr>
<tr>
<td></td>
<td>program easy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>users</td>
<td>120</td>
<td>4.1353</td>
<td>.67280</td>
<td>.06142</td>
</tr>
<tr>
<td></td>
<td>Non-users</td>
<td>180</td>
<td>2.7944</td>
<td>.99503</td>
<td>.06671</td>
</tr>
<tr>
<td></td>
<td>Internet banking is complex</td>
<td>users</td>
<td>120</td>
<td>2.2917</td>
<td>.92032</td>
</tr>
<tr>
<td></td>
<td>Non-users</td>
<td>180</td>
<td>3.5222</td>
<td>.89352</td>
<td>.06660</td>
</tr>
<tr>
<td></td>
<td>Process Simple</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>users</td>
<td>120</td>
<td>3.8083</td>
<td>.89156</td>
<td>.08139</td>
</tr>
<tr>
<td></td>
<td>Non-users</td>
<td>180</td>
<td>2.5778</td>
<td>.77644</td>
<td>.05787</td>
</tr>
<tr>
<td></td>
<td>Time saving</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>users</td>
<td>120</td>
<td>4.1353</td>
<td>.67280</td>
<td>.06142</td>
</tr>
<tr>
<td></td>
<td>Non-users</td>
<td>180</td>
<td>2.3853</td>
<td>1.14957</td>
<td>.08568</td>
</tr>
<tr>
<td></td>
<td>Comfortable with bank</td>
<td>users</td>
<td>120</td>
<td>4.0167</td>
<td>.67949</td>
</tr>
<tr>
<td></td>
<td>Non-users</td>
<td>180</td>
<td>2.9328</td>
<td>.99176</td>
<td>.07392</td>
</tr>
<tr>
<td></td>
<td>Telecommunication cost</td>
<td>users</td>
<td>120</td>
<td>4.0063</td>
<td>.96577</td>
</tr>
<tr>
<td></td>
<td>Non-users</td>
<td>180</td>
<td>4.0722</td>
<td>.60750</td>
<td>.04528</td>
</tr>
<tr>
<td></td>
<td>Fees are expensive</td>
<td>users</td>
<td>120</td>
<td>2.8167</td>
<td>.79898</td>
</tr>
<tr>
<td></td>
<td>Non-users</td>
<td>180</td>
<td>4.0667</td>
<td>.72157</td>
<td>.05378</td>
</tr>
</tbody>
</table>

Most attitudinal factors including factors regarding relative advantage, compatibility, complexity, perceived risk and perceived cost are found to be significant, however complexity, perceived risk and perceived cost present a negative relationship. Social influences did not result in any significant differences between users and non-users.

### FINDINGS AND CONCLUSION

Most of the users are middle-aged (i.e between (31-39) have monthly income in excess of 25000 are educated to Post Graduate level and belongs to working class. Research depicted that only 28 percent banking clients were using internet banking after evaluating the population characteristics it was no significant relationship in between age and use of cyber banking (the significance level is 0.005 in the chi-square tests). It also depicted that there is no relation in between gender and the adoption of internet banking (the significance level is 0.00 so we assume null hypothesis). There is a gender neutrality in the adoption of e-banking. Qualification in terms of education and income of respondents were playing the role in the...
acceptance of online banking. (Significance level of the chi-square test is 0, so we reject null hypothesis).

This research depicted that users of internet banking are increasing as their income and education standard is improving number of users depending upon the education standard of internet banking users with income. Therefore it is the need of time financial literacy of the users should be increased through various programs could be run by the banks to increase the awareness of internet banking. There is still a lot needed for the banking system to make reforms and train their customers for using internet for their banking account. Going through the survey main problem lies that still customers have a fear of hacking of accounts and thus do not go for internet banking. Banks are trying their level best by providing the best security options to the customers but there are a lot of factors which betrays a customer from opening an internet bank account.

By that way banks could be able to reduce the rush at the branches and operating cost also therefore. Banks are now spending heavily on information technology front but from the side of the government there is requirement to invest on the infrastructure like electricity and internet.

It is useful from the view of clients as well as the banks therefore in the coming years E-banking reshape the traditional banking.

REFERENCES