A study on Visually impaired customers perception towards Mobile banking Channel in India

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Abstract:
Objective: To investigate the visually disabled customers’ interest for mobile banking channel as an inclusive banking option in India and the factors those motivate or inhibit them to consume banking services through mobile phone.
Methodology: The paper is a descriptive study in nature and relied on primary data. A structured questionnaire consisting close-ended questions was used for data collection. The questionnaire was personally administering to a sample of 200 visually impaired teachers working in Government schools and colleges.
Findings: The study reveals that most of them have intention to use mobile banking channel and also indicate the SMS-based banking as the most preferred form.
Practical Implications: The outcome of this research will provide input to the bankers to reach out to this salaried-class of customer segment, offer insights to design mobile banking services to cater to this special category segment and also to practice inclusive banking.
Originality and Contribution to the literature: Mobile banking is becoming very common in Indian among the normal customers. Past research has ignored studying the importance of Mobile banking as an inclusive banking option for the VC segment. This research will offer a new direction and serve as a useful reference to further research on this special segment.

Key words: Mobile banking, inclusive banking, visually challenged customers

1. Introduction
The banking revolution in India is the possible result of technological interference in the banking operations and process. The entry of foreign banks and their technological know-hows have significant contribution to the growth of Indian banking industry and the expanding potential for Indian public to consume banking. The last decade witnessed higher demand for using plastic banking mode in the name of credit and debit cards that made way for internet banking. E banking had become a critical channel option for the bankers to offer their range of products and services as it helped the customers to consume the banking services anywhere, anytime without commuting to branch [1]. The E-banking option becomes very common in Indian market with higher younger generation population in India that was receptive to newer technologies. Amidst popularity of the E banking facility the market now is experiencing a change in banking consumption with new channel in the form of Mobile banking coming into existence [2]. With higher mobile usage rate in India this channel is definitely looking to take full control of the market if the bankers are willing to handle the market and its queries with special care. While bankers and the experts looking at the mobile banking as a most attractive channel for normal people there is also a possibility of mobile banking channel option becoming a most effective tool for the visually challenged customer segment [3]. The previous study show huge gap in their perception and expectation of the VC segment in the banking service consumption due to their limitations and does not allow them to consume banking services like normal persons. This research is an effort to assess and understand the potential of the mobile banking channel n to become an effective inclusive banking option for visually challenged customer segment.

2. Visually challenged Customers and banking industry in India
The Indian banking industry was one of those sectors that played a vital role in the Indian economic growth. The globalization of services gave the momentum to the Indian banking industry through its most effective technology and innovative process that helped the banks to reduce the cost
and serve the customers better. The banks in India were ignorant about the needs of the visually
challenged customer segment until 2008. In the year 2008 Reserve bank of India issued guidelines that
insisted banks to provide accessibility to VC customers as it if offered to normal persons [4]. The
information published by the Confederation of the Indian Industry highlights some of the guidelines
issued by the RBI that suggest banks to install ATMs along with Braille keys to enable easy operations
for VC segment and also reports the suggestions offered by IBA to its member banks to offer facilities
and guidance to the VC segment on using the Opening and Operation of Independent Accounts
Standard Banking service like ATMs, Debit & Credit Cards, Cheque book [5].

3. Mobile banking in India

The Mobile operations are at the preliminary level as the consumption through mobile is still at
lower level. Some of the MNC banks are very aggressive in promoting mobile banking as their
competitive advantage. There are banks still reluctant about promoting mobile banking channel due to
various reasons. Country like India that has higher mobile usage rate is always considered to be the
most potential to adopt. Banks are offering wide range of services through mobile channel and that
includes Bill payment, Balance inquiries, Statement request, Fund Transfer, credit card transactions,
stock trading, Cheque book request & Status, Last transaction Alerts, Interest rate alerts, Policy alerts,
PIN queries, and blocking lost cards. The banks in Indian offer two different forms of Mobile banking
option to its customers. The Application based banking services and SMS based banking facilities are
the two most common forms offered in India. The SIM based banking practices are still far away from
Indian practices. In spite of the market potential the banks in India have not helped themselves by
promoting them to have a higher diffusion rates. The mobile banking can even be used as the one of
the tools that can make the inclusive banking efforts more effective as the mobile user rate are very
high in India [6].

4. Literature Review

There is a serious paucity of literature on the subject and hence the researchers tried to assess
the concept of mobile banking and the researched banking needs of the VC people in India.

4.1. Understanding M-Banking and its form

Mobile banking is defined by Tiwari and Buse as ”Mobile Banking refers to provision and
availment of banking- and financial services with the help of mobile telecommunication devices. The
scope of offered services may include facilities to conduct bank and stock market transactions, to
administer accounts and to access customized information.” [7]. Mobile banking (also known as M-
Banking, m-banking, etc.) is a term used for performing balance checks, account transactions,
payments etc. via a mobile device such as a mobile phone. Most often M-commerce is understood as
mobile e-commerce, namely the use of wireless technology, particularly handheld mobile devices and
mobile Internet, to facilitate transaction, information search and user task performance in consumer,
business-to-business, and intra-enterprise communications [8]. K. Poustchi, and M. Schurig defined
Mobile Banking as a “type of execution of financial services which the customer uses mobile
communication techniques in conjunction with mobile devices” [9]. S.J. Barnes, and B. Corbitt defined
it as “a channel whereby the customer interacts with a bank via a mobile device, such as a mobile
phone or personal digital assistant” [10].

4.2. Forms of Mobile banking in India

Mobile banking services are offered in three different forms for the customers, namely:

a. APPS Based Model: (Needs specific software): A customer has to download application from
his banker onto his mobile. The user will have to share his customer ID with the merchant, who
will send the payment request to his mobile number. The customer will then have to confirm the
transaction. The banks will instantly carry out the transaction.
b. SIM based Model: (The Phone Becomes the Card): This system requires credit and debit card details to be loaded on the SIM card. Customer can transact business by flashing the mobile handset before a merchant’s Card reader to get instant confirmation [11].

c. SMS Based Model: (Simple text message): A customer is required to share his mobile number with the merchant. Then receive an SMS asking for payment authorization. Once the customer replies to this SMS, the bank will authenticate the details, Debit the amount to his account, and send confirmation of the same via SMS: the merchant’s system will also be updated with the payment status. The SMS banking includes both push and pull method. The customer can request information through SMS and similarly the Banks keep messaging the transaction information through SMS [12].

4.3. Visually challenged Customer Segment

About 284 million people are visually impaired worldwide: 39 million are blind and 245 have low vision. 90% of the World's visually impaired live in developing countries and more than 25 per cent of the world’s blind population is in India. India has more than 12 million visually impaired people [13]. The CII report pointed out the significance rate of visually challenged people in the Indian population. The report also explains the importance of these special category people and their growth during the recent years. They are becoming more self-sufficient by transcending into careers those were challenging their potential due to their disability [14]. The researchers have proved that technology has made the VCs more competent and has supported in acquiring information and consume services like normal persons [15]. With sizable population and growing potential to consume banking services the visually challenged customer segment needs to be concentrated by banks.

There is a wide range of research that study the various marketing and operational dimensions of mobile banking and its relevance to customers but there is huge gap in the existing literature from the visually challenged customer segment perspective as there is no published research available. This research will contribute to the literature as it will offer wide scope in the area of mobile banking and its significance to the visually challenged customers.

5. Research Objectives

The major purpose of this research is to understand and assess the potential of Mobile banking channel and its effectiveness as an inclusive banking option for the visually challenged customer segment in India. This research was carried out with the following objectives:

- To know the awareness level of VC customers’ on various forms of mobile banking.
- To examine their interest towards consuming banking services through mobile channel option and the most preferred form of mobile banking.
- To identify the factors those motivate or inhibit the VC customers to prefer mobile banking channel.

6. Research Methodology

This is a descriptive empirical study. The data collection instrument was a structured questionnaire. Data was collected through personally administered survey as these special category respondents need personal attention and support while filling up the questionnaire. A focus group interview was conducted as a preliminary investigation to identify the variables of interest to this segment in order to design an appropriate instrument that can be used for sourcing information. The survey covered 100 Visually Challenged respondents working as teachers in Government school and colleges in the state of Tamil Nadu, India. This helped to fulfill the inclusion criteria of the respondents belonging to the salaried-class and operating a Bank savings account. The research involved analyzing demographic details of the respondents apart from critical data relevant to their preference for mobile banking. It included calculation of weighted average to determine the most critical variable.
7. Findings and Discussion

The respondents profile presented below depicts the demographic distribution of the visually challenged customer segment covered in the survey.

Table 1: Demographic profile of the Customers covered in the research

<table>
<thead>
<tr>
<th>Age</th>
<th>Education</th>
<th>Occupation</th>
<th>Marital Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>26 – 30</td>
<td>12</td>
<td>Teachers (school)</td>
<td>73 Single</td>
</tr>
<tr>
<td>31 – 35</td>
<td>30</td>
<td>Teacher (Arts College)</td>
<td>22 Married</td>
</tr>
<tr>
<td>36 – 40</td>
<td>52</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Above 40</td>
<td>6</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

7.1. Mobile Phone usage and comfort level

The survey revealed that all the respondents (100%) own mobile phones and use them regularly. The researcher tried to assess the ease with which the mobile phone can be used by the visually challenged customer segment to understand the potential of mobile banking options.

Table 2: Comfort level of the VC person and usage of various features of Mobile phones

<table>
<thead>
<tr>
<th>Different features of mobile phone</th>
<th>Very comfortable</th>
<th>Comfortable</th>
<th>Difficult to say</th>
<th>Can use with help</th>
<th>Not at all comfortable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Receiving and reading SMS</td>
<td>100</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Writing &amp; Sending or forwarding SMS</td>
<td>94</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>MMS option</td>
<td>47</td>
<td>22</td>
<td>0</td>
<td>31</td>
<td>0</td>
</tr>
<tr>
<td>Working on internet applications</td>
<td>10</td>
<td>52</td>
<td>0</td>
<td>24</td>
<td>14</td>
</tr>
<tr>
<td>Browsing through net using mobile browser</td>
<td>15</td>
<td>63</td>
<td>0</td>
<td>12</td>
<td>10</td>
</tr>
</tbody>
</table>

The table shows that the VC respondents are very comfortable in sending and receiving SMS. Except 6 respondents all the others are familiar with sending and receiving the SMS. Around 47% of the respondents are very comfortable and 22% of them are comfortable with MMS options. The comfort level of VC person in using the Web applications or using mobile browser is reasonably good and favorable. Few respondents though feel they cannot use them or can use with some support or help from somebody. The favorable response can be attributed to the kind of high end mobile models and apart from the supporting software like talks, eloq that supports them in accessing various features of the mobile phones.

7.2. Banking profile of the VC customers

The research revealed that all the respondents from teaching profession operate two savings bank accounts at two different banks.

Table 3: Table showing the banking pattern of the VC segment

<table>
<thead>
<tr>
<th>% of customers</th>
<th>Number of accounts</th>
<th>Nature of account</th>
<th>No. of transactions per month</th>
<th>Facilities Offered</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 %</td>
<td>2 accounts</td>
<td>Singly operated savings account (for salary credit)</td>
<td>Around 90% of the respondents operate this account 2-4 times in a month and 10% less than 2 times</td>
<td>12 respondents own Debit card (ATM) and only 10 respondents have Cheque book facility.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Joint Account</td>
<td>All of them use less than 2 times</td>
<td>All of them have ATM card &amp; Cheque book</td>
</tr>
</tbody>
</table>
Only 12% of the respondents own ATM cards for their first account and all of the own ATM & cheque facility for their joint account. The interesting fact is that all of them have two accounts, one for the salary credit and the second account is joint account that is operated jointly with their spouse or parents.

7.3. Awareness level towards various channels of banking

Table 4: Table showing the awareness level towards various banking channels

<table>
<thead>
<tr>
<th>Various channels of banking</th>
<th>Fully aware</th>
<th>Aware</th>
<th>Neutral</th>
<th>Unaware</th>
<th>Fully unaware</th>
</tr>
</thead>
<tbody>
<tr>
<td>Branch banking</td>
<td>100%</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Phone banking</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>100%</td>
</tr>
<tr>
<td>Net banking</td>
<td>-</td>
<td>15%</td>
<td>10%</td>
<td>-</td>
<td>75%</td>
</tr>
<tr>
<td>Banking through ATM</td>
<td>10%</td>
<td>69%</td>
<td>10%</td>
<td>19%</td>
<td>-</td>
</tr>
<tr>
<td>Mobile banking</td>
<td>-</td>
<td>82%</td>
<td>12%</td>
<td>-</td>
<td>6%</td>
</tr>
</tbody>
</table>

The analysis clarifies that around 82% of the aware of the mobile banking channel and their awareness level towards using ATM and branch banking is also reasonably good. But it is very difficult as their comfort level in using this channel’s with the awareness level.

7.4. Banking channel preference and preferred form of Mobile banking

The respondents preference in using various forms of mobile banking and their choice of transactions preferred through mobile banking were sourced from the factors those influence the choice of form and hinder them to ignore. Around 72% have intention to use mobile banking options to consume banking services. 28% of the respondents reveal that they want to do branch banking option and ATM banking instead of mobile banking. The respondents who revealed intention to use mobile banking instead of other banking channels revealed that (100%) SMS based banking options as the most preferred mobile banking form and around 75% of them prefer using the Application based mobile banking also but none of them prefer SIM based banking services.

7.5. Various transactions and banking channels

The study also involved knowing the preferred channel for various banking transactions and services.

Table 5: Table showing the preferred channel for various banking services

<table>
<thead>
<tr>
<th>Various transactions</th>
<th>Banking at ATM</th>
<th>Branch Banking</th>
<th>Internet Banking</th>
<th>Mobile banking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance Inquiry</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>100%</td>
</tr>
<tr>
<td>Statement Request</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>100%</td>
</tr>
<tr>
<td>Cheque Book request</td>
<td>-</td>
<td>43%</td>
<td>-</td>
<td>57%</td>
</tr>
<tr>
<td>PIN request</td>
<td>-</td>
<td>63%</td>
<td>-</td>
<td>37%</td>
</tr>
<tr>
<td>Fund Transfer</td>
<td>-</td>
<td>72%</td>
<td>-</td>
<td>28%</td>
</tr>
<tr>
<td>Cheque status (returns)</td>
<td>-</td>
<td>12%</td>
<td>-</td>
<td>88%</td>
</tr>
<tr>
<td>Bill payments</td>
<td>10%</td>
<td>34%</td>
<td>10%</td>
<td>46%</td>
</tr>
</tbody>
</table>

The study shows significant response from the VC respond as they reveal higher level of interest towards transacting through mobile banking channel options. All the respondents chose mobile banking as an option for knowing their account balance and statement request. There is a favorable response from the VC customers to know their cheque status through mobile banking option. In spite of their interest and preference to use mobile banking channel some of the respondents have show aversion to use this channel especially for requesting new PIN, Fund transfer, Cheque book request and Bill payments. This may be due to the risk involved in these transactions.

7.6. Factors those influence or hinder the choice of Mobile banking option

The factors those influenced the VC customers to chose the Mobile banking channel for service consumption are; independent banking (freedom to bank), Ease to bank, Anytime banking, and bank
anywhere. Weighted average was adopted to identify the most important factor that influenced the choice of banking channel.

Table 6: Table showing ranking of factors that influence preference for mobile banking

<table>
<thead>
<tr>
<th>Motivating Factors</th>
<th>Ranks/ importance level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Freedom to bank (independent banking)</td>
<td>Most important (highest weights earned)</td>
</tr>
<tr>
<td>Bank Anywhere</td>
<td>Second level of importance</td>
</tr>
<tr>
<td>Ease to Bank</td>
<td>Third level of importance</td>
</tr>
<tr>
<td>Bank anytime</td>
<td>Least important factor</td>
</tr>
</tbody>
</table>

The calculation revealed that Freedom to Bank (independent banking facility) was the most critical factor that supports the choice of banking channel. The research earlier revealed that the VCs use mobile device at ease and they are familiar with mobile usage when compared to other technological device like internet, etc. therefore they have the confidence to use mobile for banking and also no need for the help or support from friends or relatives to transact through mobile which gives them full freedom to bank when compared to banking through branch or ATM. The second most critical factor that influenced them to chose mobile banking channel is the option that offers them to bank anywhere. This is largely due to their intent to bank at home and the mobile banking might allow them to be at home and transact and not necessary to go anywhere that requires a guide or help from normal people. Ease to bank and bank anytime are the least important factor that influenced them to prefer mobile banking channel.

Factors that inhibit them from opting mobile banking as the channel for service consumptions are security (risk) concern and lack of knowledge about mobile banking. The VC state two major reasons for which they don’t prefer mobile banking and the most critical factor they quote is the security concern of the respondents. They feel concerned about the risk factor involved in consuming banking services through mobile channel.

8. Recommendations

The data discussion above revealed that the VC respondents’ intention to use or consume banking services through mobile banking channel is very encouraging. They are positive about using the mobile banking options and they prefer SMS based mobile banking options. It is time for bakers to think about this special category customers as the most potential customer segment as it suits their need. Below mentioned are some of the recommendations made to the bankers operating in India based on the research findings. Promoting Mobile banking as an inclusive banking option for visually challenged customers can be done through below mentioned suggestions and recommendations:

- The banks need to promote mobile banking as a tool amidst the VC customers as it helps them more than any other channel. From the research we found that they have higher interest to use mobile banking.
- Offering mobile banking on charges will not serve the purpose as many customers might choose the other channel that does not incur any cost. The banks need to offer the full package of the mobile banking services at no cost to ensure higher level of mobile banking channel adoption by the VC customers.
- It is not just about offering it free of cost but also making it a part of savings account package. Full range of mobile banking features should be offered with every savings account operated by the VC customers.
- The banks need to educate and create awareness level among their tellers to recommend and encourage VC customers to use mobile banking services. The research findings show security factor (risk) as the main hindrance to mobile banking preference. By talking and educating the VC customers the aversion towards the mobile banking for security reason can be reduced.
- The banks need to conduct awareness campaign and conduct demonstrations to bank through mobile. The banks need to get the VC customers to the campaign during non-banking hours to help them learn to consume banking services through mobile.
banks need to conduct some focus group interviews after the demonstration to understand the difficulties in consuming services through mobile to take necessary actions.

- The banks can also motivate and encourage VCs to consume banking service by crediting points that can be redeemed at the end of the year for gift vouchers. Every transaction through mobile banking can be awarded some points.

9. Conclusion
The lack of literature support on the banking for visually challenged customer segment and growing mobile usage rate influenced was the fundamental need for this research. The research was specifically designed to study the VCs interest and preference on using the mobile banking channel as an inclusive banking option. In response the study revealed higher interest and preference from the VC to consume banking services through mobile in spite of their lower awareness level towards the mobile banking nuances. The SMS banking was most preferred as the SMS familiarity is very high among VC persons supported by the talk software. The recommendations were offered based on the findings that might motivate and encourage the VCs to consume banking service through mobile. Though research recommends banks to promote mobile banking and finds favorable response from the special category people there might be few critical issues and problems hiding and not being brought out, therefore there is a need for more research and study that can bring out more nuances to the attention of the bankers to make the Mobile banking channel as the inclusive banking tool for VC customer segment.

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