A study on utility of mobile banking technology in Tiruchirappalli city, Tamil Nadu

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Abstract
Mobile banking is a term used for performing balance checks, account transactions, payments, credit applications, loans to farmer households, time demand deposits transfer, third-party depository, customized message, account management, personal setting and etc. Technology has a major impact in helping banks service their customer was with the introduction of the Internet banking. Internet Banking helped the customers to access their account at any time. Customers could check out their account details, get their bank statements, perform transactions like transferring money to other accounts and pay their bills sitting in the comfort of their homes and offices. The main benefit is that cell phone is more portable than even the smallest notebook. Mobile banking is convenient. Anytime-anywhere account access makes seat-of-the-pants one management possible. In this paper deals the utility of mobile banking and to study gives adoption and acceptance of mobile banking system, perception of mobile banking users, and analyze important factor is needed to adopt mobile banking system in Tiruchirappalli City, Tamil Nadu.

Keywords: Mobile Banking, Internet Banking, Utility, Adoption, Perception and Acceptance

1. Introduction
Although millions of dollars have been spent on building mobile banking systems, reports on mobile banking show that potential users may not be using the systems, despite their availability. Thus, research is needed to identify the factors determining users' acceptance of mobile banking. Mobile Banking is one of the significant functions of the bank. Mobile banking is a system that allows customers of a financial institution to conduct a number of financial transactions through a mobile device such as a mobile phone or tablet. Technically speaking most of these services can be deployed using more than one channel. Presently, Mobile Banking is being deployed using mobile applications developed on one of the following four channels. 1) Interactive Voice Response 2) Short Messaging Service 3) Wireless Access Protocol 4) Standalone Mobile Application Clients. The factors affecting the acceptance of an emerging IT artifact such as mobile banking have piqued interest among researchers and remain unknown due in part to consumers' trust and risk perceptions in the wireless platform.

2. Research Methodology
2.1 Primary objective
The Primary objective of this study is to analyze the utility of mobile banking system in Tiruchirappalli City, Tamil Nadu.

2.2 Specific objectives
- To study the adoption of mobile banking system by the bank customers in Tiruchirappalli City, Tamil Nadu.
- To know the perception level of mobile banking system.
- To identify important factors this decides the acceptance of mobile banking system.
- To give valuable suggestions to banking sector to promote mobile banking technology among the bank customer


2.3 Research design

Descriptive research design is used in this study. Descriptive research design is a scientific method which involves observing and describing the behavior of a subject without influencing it in any way.

2.4 Source of Data

In this study questionnaire method was used for primary data collection. The format of the questionnaire consists of four parts. They are Demographic information, Mobile banking perception, important factor to adopt and accept mobile banking system.

2.5 Sampling

Simple Random Sampling technique was used in the study. Simple random sampling is one form of probability sampling. All the researcher needs to do is assure that all the members of the population are included in the list and then randomly select the desired number of subjects.

2.6 Sample size

160 respondents who are the customers of various banks in Tiruchirappalli City, Tamil Nadu.

2.7 Limitations of the Study

It covers only respondents from Tiruchirappalli, by keeping a sample of 160. The time period of the study between September 2014 to February 2015 and all the results confined to this time period alone.

3. Review of Literature

Xin Luo, Han Li, Jie Zhang, J.P. Shim (2010). The article discuss the factors affecting rejection or acceptance of an emerging IT artifact such as mobile banking have piqued interest among IS researchers and remain unknown due in part to consumers' trust and risk perceptions in the wireless platform.

Hsiu-Fen Lin (2011), Rapid advances in mobile technologies and devices have made mobile banking increasingly important in mobile commerce and financial services. Using innovation diffusion theory and knowledge-based trust literature, this study develops a research model to examine the effect of innovation attributes (perceived relative advantage, ease of use and compatibility) and knowledge-based trust (perceived competence, benevolence and integrity) on attitude and behavioral intention about adopting (or continuing to use) mobile banking across potential and repeat customers.

Chian-Son Yu (2012), 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. Therefore, research to enrich current knowledge about what affects individuals to use mobile banking is required. Consequently, this study employs the Unified Theory of Acceptance and Use of Technology (UTAUT) to investigate what impacts people to adopt mobile banking.

V Devadevan (2013), in this article titled as Mobile banking in India- issues and challenges mobile banking has an opportunity to adopt mobile users due to technological implementation. This article discussed about challenges which transaction limitation, security and authentication issues. This also highlighted some other issues related with mobile banking. The major problem was identified like facilities in mobile banking, different languages used for communication.

Muhmmad Zeeshan (2013), in their article Internet versus Mobile banking have compared that how internet banking differ from mobile banking. It explained that usefulness of internet and mobile banking are same but differs. Because the internet banking the user have to sit in front computer to operate longer time, but mobile banking is portable and easy to carry anywhere but still internet banking has used in superior level.

Bossi Masamila (2014) [6], in this article State of Mobile banking in Tanzania and security issues tells about perception of Tanzania people. Most of them have mobile banking but not bank accounts. So mobile banking has been created big opportunity to increase the bank growth. Finally, there are number of opportunities to increase mobile banking user and surely mobile banking increases bank and country growth.

Harun R Khan (2014) [6], in this article titled as Digital India: Emerging challenges and Opportunities for the banking sector. It discussed about Migration from cash to electronic payments and there are over 900 million mobile users in the country. RBI conducted number of awareness program to increase mobile banking users. The plan of digital India is connecting all the Gram Panchayat through broadband network by 2014.

Aijaz A. Shaikh, Heikki Karjaluoto (2015), the article analyzes and synthesizes existing studies of m-banking adoption and maps the major theories that researchers have used to predict consumer intentions to adopt it.

4. Data Analysis and Interpretation

<table>
<thead>
<tr>
<th>Mobile Banking Operations</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>View Account Activity</td>
<td>Valid No</td>
<td>10</td>
<td>20.0</td>
<td>20.0</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>40</td>
<td>80.0</td>
<td>80.0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>50</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Deposits</td>
<td>Valid No</td>
<td>42</td>
<td>84.0</td>
<td>84.0</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>8</td>
<td>16.0</td>
<td>16.0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>50</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Money Transfer</td>
<td>Valid No</td>
<td>25</td>
<td>50.0</td>
<td>50.0</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>25</td>
<td>50.0</td>
<td>50.0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>50</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Pay Bills</td>
<td>Valid No</td>
<td>26</td>
<td>52.0</td>
<td>52.0</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>24</td>
<td>48.0</td>
<td>48.0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>50</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Ticket Booking</td>
<td>Valid No</td>
<td>39</td>
<td>78.0</td>
<td>78.0</td>
</tr>
<tr>
<td></td>
<td>Yes</td>
<td>11</td>
<td>22.0</td>
<td>22.0</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>50</td>
<td>100.0</td>
<td>100.0</td>
</tr>
<tr>
<td>Others</td>
<td>Valid No</td>
<td>50</td>
<td>100.0</td>
<td>100.0</td>
</tr>
</tbody>
</table>
The table 1.0 shows that 40(80.0%) view account activity, 10(20.0%) do not view their account activity, 8(16.0%) are using mobile banking for deposits 42(84%) are not, 25(50.0%) uses to transfer money and 25(50.0%) are not. 24(48.0%) pay bills by mobile banking rather 26(52.0%) are not. 11(22.0%) are using mobile banking for ticket booking 39(78.0%) are not. The responds do not prefer other operations through mobile banking. It shows that most of the customer prefers mobile banking to view account activity followed to transfer money, Pay bills, Ticker booking and deposits.

Table 1.1: Some Important Factor to Adopt Mobile Banking in the Future Descriptive Statistics

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Security</td>
<td>50</td>
<td>1</td>
<td>5</td>
<td>4.44</td>
<td>.884</td>
</tr>
<tr>
<td>Privacy</td>
<td>50</td>
<td>1</td>
<td>5</td>
<td>4.24</td>
<td>.960</td>
</tr>
<tr>
<td>Reliability</td>
<td>50</td>
<td>2</td>
<td>5</td>
<td>4.04</td>
<td>.903</td>
</tr>
<tr>
<td>Service charge</td>
<td>50</td>
<td>1</td>
<td>5</td>
<td>3.62</td>
<td>1.105</td>
</tr>
<tr>
<td>Perceived usefulness</td>
<td>50</td>
<td>2</td>
<td>5</td>
<td>3.92</td>
<td>.922</td>
</tr>
<tr>
<td>Perceived ease of use</td>
<td>50</td>
<td>1</td>
<td>5</td>
<td>3.74</td>
<td>.986</td>
</tr>
<tr>
<td>Valid N (list wise)</td>
<td>50</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The above table 1.1 shows cross tabs between year of using mobile banking and important factors to adopt mobile banking in the future they are namely security, privacy, reliability, service charge, perceived usefulness, perceived ease of use. According to this result most of the respondents are using mobile banking 1 to 2 year. And respondent prefers security for their first choice to adopt mobile banking in the future followed by reliability, privacy, perceived ease of use, perceived usefulness and service charge.

5. Major Findings
1. Mobile banking users are more in age group of 21-30 followed 31-40.
2. 78% of mobile banking user uses antivirus software in their mobile phone.
3. 96% of mobile banking user assigns password to protect their mobile.
4. Mobile banking users 100% are using mobile banking for bank account followed by commodities 90%.
5. Reasons for using mobile banking is to access 24*7 (44%) and for convenience (24%)
6. Frequency of using mobile banking is 1 to 2 times per month (44%) followed 3 to 4 times (38%).
7. The respondents 80% of them are using mobile banking to view account activity operations, 50% are using for money transfer and 48% of them to pay bill
8. Mobile banking perception differs according to the user age, qualification, occupation, monthly income and year of using mobile banking. But finally every mobile banking user accepted that mobile banking is useful and affordable service to everyone.

6. Suggestions
- Bank provides number of facilities to their customer to attract and to increase the revenue of the banking sector. Mobile banking is an emerging technology which is used by most of the bank customers. It is mainly used by age group between 21-30 and it is also to be noted that most of the male customer uses mobile banking than female user.
- Mobile banking user prefers antivirus to protect their mobile and also they uses password to access it. Compare with net banking it is more convince and also portable. It has same usefulness like net banking but facilities are higher in mobile banking than net banking. In India most of them uses mobile but they do not have account. The bank can increase their customer by mobile banking.
- The perception of mobile banking among the respondent are mostly same. Mobile banking users still worry about security of mobile banking and privacy. The mindset of the mobile banking customer should be changed. It has much security policy like net banking, but it didn’t reach to the people. Most of the user accepted that mobile banking has much facilities and its convenience also 24*7 accesses. The customer can access their account at anytime and anywhere.
- Finally, mobile banking did not reach in Trichy that much. The acceptance of mobile banking among the bank customer is below expectations because out of 170 only 50 of them uses mobile banking may be because low levels of awareness and acceptance, inability of banks to seed the mobile number with the account number, absence of collaboration and revenue sharing models between banks and mobile banking operators. So the banks have to take some action like awareness and training program to promote mobile banking to their customers. It will be beneficial to bank as well as to their customer.

7. Conclusion
Mobile banking is used by all age groups of people. The current research concludes that many of the people are not aware of mobile banking. Each and every technology has its own advantages and disadvantages. Mobile banking also has number of advantages but it did not reach to the bank customer properly. If bank customer has more money than they need to manage their day to day expenses, banks offer a variety of options for saving, including market accounts, high-interest online savings accounts and basic savings accounts. Using mobile banking customer can easily access their bank accounts anywhere at any time. Bank provides much security to manage their customer mobile banking. Finally, bank has to provide awareness to their customer about mobile banking to increase bank growth. Because everyone has mobile phone, so it is better opportunity to the bank to increase their revenue. People have to consider that mobile banking is an opportunity to increase their growth. It would be better to the country growth if bank and customer consider that mobile banking is an affordable service.

8. References
2. Challenges in Mobile Banking, Searched about challenges and adoption of mobile banking view on February, 2015; 12:201.