A Study on Factors Affecting e-banking Non-adoption in Selected Regions of Saurashtra

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ABSTRACT:

Purpose: The purpose of this study is to examine the comparative analysis of e-banking non-adoption among urban, semi-urban and rural people within selected regions of Saurashtra.

Design/methodology/approach: In total 11 statements, under four elements that are postponement, opposition, rejection and other factors were identified after reviewing the literature. Confirmatory factor analysis was conducted using structural equation modeling (Smart PLS 3). Statistical results were arrived by using SPSS 21 package and performing One-way ANOVA, Descriptives analysis and Post Hoc analysis. Total 900 respondents were asked to fill the questionnaire in personal, out of which 240 respondents found as non-users of e-banking, whereby they do not use any single electronic service of banking, not even ATM. In this study; analysis, findings and recommendations are given based on non-users of e-banking.

Findings: Results of the study show that there is a significant difference between urban, semi-urban & rural people and determinants of e-banking non-adoption. Postponement, Opposition and Rejection factors affect more to urban people, whereby other factors have major effect on semi-urban people. Many of rural people were unaware with the various types of e-banking services offered by banks. Hence, their answers were not precise and marked as neither agree nor disagree in most of the questions. So considering rural people and this situation, findings and suggestions are provided.

Keywords: E-banking, Non-adoption, Urban, Semi-urban, Rural, Postponement, Opposition, Rejection, Other factors, ANOVA, Descriptives, Post Hoc Analysis

1. INTRODUCTION:

To fight against pandemic of COVID-19, majority of banks in India and also RBI governor Shaktikanta Das have urged people to use digital platforms in order to perform any banking transactions, which mainly includes IMPS, NEFT, UPI, Mobile Wallets, Cards etc. Digital payments will avoid social contact and people will not move outside by doing the same sitting at home itself. Thus, the impact of corona virus infection would be reduced at certain extent. (The Economic Times, 2020)

"Most of our clients, large and small corporates alike, find our digital business banking solutions intuitive and useful, and the lockdown has only accelerated the pace of adoption. We have seen a 29 per cent rise in the number of digital transactions in Q1 2020 versus Q1 2019," Niraj Mittal, Managing Director & Country Head, Institutional Banking Group, DBS India, said. (V, N., 2020)

By considering the importance of e-banking since two decades, there are many people not only in rural regions but also in urban and semi-urban regions, who do not use many of the electronic services offered by banks except ATM facility. So this research paper is a platform to compare non-users of e-banking across urban, semi-urban and rural regions.

After studying various literatures, it was found that very less number of studies have covered urban, semi-urban and rural areas altogether while studying e-banking; which is important to get the real picture of particular region or country as a whole. It feels necessary in current scenario, because development shall be measured throughout the region, state, or/and country and not only in metro or urban regions. Also very limited studies have been conducted on Saurashtra region (of Gujarat state). Therefore, to get a real picture of whole Saurashtra, present study has been an addition to the existing literature by covering certain urban, semi-urban and rural areas of Saurashtra region at a time and explore the factors that resist availing e-banking services among earning individuals.

2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK:

Agwu (2013) has studied on various barriers of e-banking. According to many researchers, various organizations and innovations have failed and the major reason considered behind that is the problem of less demand from customers for those innovations. As per this study, social factors are the main reason for resisting innovation; however, other factors are also contributing in non-adoption of innovations. As per the findings of this research, non-adoption of innovation can be postponement, opposition and rejection. There are also functional and psychological barriers resulting into resistance. After investing heavily into such innovations that reduces the cost and increases the benefits, bank marketers must ensure the usefulness of innovations. That needs proper marketing strategies and relationship marketing which leads to low resistance and high acceptance towards innovations.

Gupta (2017) in his study found that there are some problems in e-banking adoption that to be sorted out with the help of framing proper strategies and make e-banking more popular and reachable across the India. These limitations include lack of long term forecasting by banks, promotion of e-delivery platforms, security concerns, worldwide players in the argument, training to bank employees, lack of e-banking awareness among prospective users, greater rural residents, availability of technology in rural areas, late acceptance of technology, customer satisfaction, optimal consumption of technology available on hand etc. In India majority of population residing in rural areas and the major problem in rural areas is of literacy, due to which e-delivery adoption rate is very low in those areas. Though government has launched various programs to increase literacy in rural areas, it has not improved at certain level that e-delivery platforms get used by noticeable number of people. Banks shall do something for this mass. According to researcher, demonetization in India 2016 has already increased the adoption rate of e-delivery channels. Only banks should try to make these services available in regional languages too to make this more acceptable and overcome the problem of rural non-adoption at certain extent.

Umrez & Ramanjaneyulu (2016) have conducted an empirical study on ‘customer resistance towards internet banking among the literates’. The findings show that customers of banks are well educated, having knowledge of banking and need of internet banking services. However they are not using e-banking services due to some reasons like insufficient knowledge about all e-banking services, advantages of adopting e-banking services, negative

perception towards security risk while using e-banking, high cost of internet and e-banking, some psychological factors like influence of family and friends, more comfortable in offline banking due to live interaction with bankers etc. As it is much clear that e-banking is more advantageous than traditional banking, bankers must try to convert non-users into users. Because people are partially aware about the e-banking and willing to use it more in future, in that case banks shall educate customers and encourage them to use the same.

Postponement: Postponing the decision refers to pushing forward the adoption of an innovation (Kuisma et al, 2007). It is an active decision to not adopt an innovation at some point despite the fact that the innovation seems acceptable to the consumer. Postponing is usually caused by situational factors, such as timing, acquire necessary knowledge or ensure that the product works effectively. Consumers can escape from the dilemma of adoption vs. resistance by postponing the decision (Nabih et all, 1997). Hence, previous researches have proved that postponement has direct impact on non-adoption towards innovations. Some of the circumstances in which consumers prefer to postpone the decision regarding the innovation are: when the consumer finds usage/content complexity, complex to understand functions / lack of simplicity, require more skills & mental effort / complex design etc.

Opposition: It refers to the protest towards innovation or to search additional information about the process (Kuisma et al, 2007). The consumer tends to reject the innovation but is willing to test or verify the innovation before its final rejection in the period. Opposition causes vary and can be many, such as performance risk, value risk, security risk, finance risk etc. So opposition towards innovation is important component to study non-adoption of e-banking services.

Rejection: Consumers can directly reject an innovation; this is the extreme form of resistance. The rejection is an active decision to not at all take up an innovation (Kleijnen et al. 2009). The closest definition to the one given by Kleijnen, is that by Rogers which defines rejection as 'the decision to not to adopt an innovation'. Rejection occurs when individuals decides that will not use the innovation, therefore, they actively rejects the innovation. Which means that rejection factor has direct impact on non-adoption towards innovation or e-banking services. Situations behind rejecting innovation can be not having bank account, lack of internet facility, lack of interest/need, lack of network etc.

Other Factors: Factors responsible for non-adoption of innovation or e-banking services include comfortable with offline banking, lack of awareness and knowledge, language barrier, affordability issues, lack of trust and need or any other than mentioned ones.

3. RESEARCH OBJECTIVES:

1. To study relationship between regions and determinants of e-banking non-adoption**.**
    - **Determinants of e-banking non-adoption:** Postponement, Opposition, Rejection, & Some other factors

4. RESEARCH METHODOLOGY:

To get the appropriate and accurate results, following research methodology has been used in present study.

4.1 Statement of Hypothesis

Null Hypothesis (Ho): There is no significant difference between urban, semi-urban & rural regions and determinants of e-banking non-adoption

Alternative Hypothesis (Ha): There is a significant difference between urban, semi-urban & rural regions and determinants of e-banking non-adoption

4.2 Data Collection Source:

Primary and Secondary sources are used in conducting this study**.** Primary data was collected through survey, by means of personally administered questionnaires, from nine regions Saurashtra (**Urban**: Rajkot, Bhavnagar, Junagadh; **Semi-urban**: Surendranagar, Amreli, Gir-Somnath; **Rural:** Bhatiya, Bed, Ghuntu), as per Uniform Stratified Sampling method. Selection of regions is done based on highest population of regions as per Census Data, 2011. The secondary data was collected from books, journals, magazines, publications, websites, blogs etc.

4.3 Sample Size:

Sample size of the study is 900 respondents; 100 from each region (total nine regions).

4.4 Construct Reliability:

Table-4.4.1 Reliability of variables:

Factors	Variables	Statements	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Postponement	Lack of prompt solutions	I need to clarify some questions and justify the reasons to use IB services.	0.862	0.880	0.935	0.878
	Require more skills & mental effort / complex design	I am waiting for the right time and required capability to use IB services.				
Opposition	Performance risk	Use of e-banking services may be wastage of time.	0.580	0.580	0.783	0.548
	Security risk	I am not sure of privacy or security.				
	Finance risk	I feels fear of certain mistakes while operating e-banking may impose on me.				
Rejection	Not having bank account	It is unlikely that I use e-banking services in the near future.	0.559	0.578	0.817	0.691
	Lack of internet facility	E-banking is not for me.				
Other factors	Comfortable with offline banking	I am happy with the current way of doing offline banking transactions.	0.678	0.702	0.801	0.503
	Lack of awareness and knowledge	I am not at all aware about what is it and what does it include.				

	Language barrier	Unable to understand language.				
	Affordability	I cannot afford it.				

5. DATA ANALYSIS:

Following is the analysis of data based on questionnaire design.

Table-5.1 Demographic Profile of Respondents:

		Urban	Semi-urban	Rural
Gender	Male	85%	90%	93%
	Female	15%	10%	7%
Age	14 - 23 years	15%	25%	10%
	24 - 33 years	48%	38%	42%
	34 - 43 years	25%	21%	20%
	44 -53 years	8%	6%	10%
	54 years or more	4%	10%	18%
Education	SSC	19%	14%	20%
	HSC	12%	16%	10%
	Graduate	19%	30%	20%
	Post graduate	45%	22%	10%
	Doctorate	4%	4%	0%
	Others	1%	14%	40%
Occupation	Private employee	62%	50%	35%
	Govt. employee	7%	6%	8%
	Business	25%	29%	18%
	Profession	2%	8%	2%
	Agriculture	0%	3%	19%
	Others	4%	4%	18%
Income	Less than Rs.10,000	14%	24%	30%
	Rs.10,001 – 20,000	19%	30%	39%
	Rs.20,001 – 30,000	23%	21%	29%
	Rs.30,001 – 40,000	13%	9%	2%
	Rs.40,001 – 50,000	10%	9%	0%
	Rs.50,001 – 60,000	8%	2%	0%
	More than Rs.60,000	13%	5%	0%

Table-5.2 ANOVA analysis of an association between regions and factors affecting e-banking non-adoption. (Earning individuals)

Components		Sum of Squares	Df	Mean Square	F	Sig.	Results
Postponement	Between Groups	29.144	2	14.572	16.377	.000	p<0.05 Significant
	Within Groups	210.879	237	.890			
	Total	240.024	239				

Opposition	Between Groups	13.317	2	6.658	6.960	.001	p<0.05 Significant
	Within Groups	226.737	237	.957			
	Total	240.054	239				
Rejection	Between Groups	7.951	2	3.975	4.060	.018	p<0.05 Significant
	Within Groups	232.067	237	.979			
	Total	240.018	239				
Others	Between Groups	4.429	2	2.214	2.227	.110	p>0.05 Not significant
	Within Groups	235.625	237	.994			
	Total	240.053	239				

One-way ANOVA indicates that whether there are significant differences in the mean scores across the three segments.

Results of ANOVA table-5.2 show that there is a significant difference among urban, semi-urban and rural people with respect to determinants of e-banking non-adoption like postponement, opposition and rejection ($p<0.05$). Hence, we accept alternate hypothesis.

While, with respect to other factors as determinant, there is not a significant difference among urban, semi-urban and rural people ($p>0.05$). Hence, we fail to reject null hypothesis.

Table-5.3 Descriptives analysis of an association between regions and determinants of e-banking non-adoption. (Earning individuals)

Components		N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Postponement	Urban	45	.72453	.601805	.089712	.54373	.90534	-.629	1.864
	Semi-urban	76	-.18986	1.320871	.151514	-.49169	.11198	-2.203	1.864
	Rural	119	-.15291	.736984	.067559	-.28669	-.01912	-1.187	.847
	Total	240	-.00009	1.002139	.064688	-.12752	.12734	-2.203	1.864
Opposition	Urban	45	.47633	1.406026	.209598	.05392	.89875	-1.795	3.334
	Semi-urban	76	-.03259	1.159826	.133041	-.29762	.23244	-1.728	1.838
	Rural	119	-.15946	.573888	.052608	-.26364	-.05528	-1.156	.837
	Total	240	-.00008	1.002202	.064692	-.12751	.12736	-1.795	3.334
Rejection	Urban	45	.34953	1.335671	.199110	-.05175	.75081	-2.125	3.072
	Semi-urban	76	.01661	1.275866	.146352	-.27494	.30815	-2.125	1.773
	Rural	119	-.14296	.516528	.047350	-.23672	-.04919	-.826	1.030
	Total	240	-.00009	1.002127	.064687	-.12752	.12734	-2.125	3.072
Others	Urban	45	-.20660	1.509043	.224955	-.65997	.24677	-2.710	2.824
	Semi-urban	76	.17646	1.207018	.138454	-.09935	.45228	-2.710	1.857
	Rural	119	-.03450	.470848	.043163	-.11997	.05098	-1.096	.934
	Total	240	.00004	1.002201	.064692	-.12740	.12748	-2.710	2.824

Descriptives help to identify the association between regions and determinants by comparing means. Higher the value of mean, higher is the impact of determinant on region.

As if in above table-5.3, we can say that postponement, opposition and rejection as determinants of e-banking non-adoption have been scored highest by urban respondents, means that these factors significantly impact more on urban people than semi-urban and rural. Other factors as another determinant scored highest by semi-urban people, so that this factor significantly impact more to semi-urban people than urban and rural.

Table-5.4 Post Hoc Analysis
Multiple Comparisons using LSD of an association between regions and determinants of e-banking non-adoption. (Earning individuals)

Components	Comparison		Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
						Lower Bound	Upper Bound
Postponement	Urban	Semi-urban	.914389*	.177428	.000	.56485	1.26393
		Rural	.877441*	.165076	.000	.55224	1.20265
	Semi-urban	Rural	-.036948	.138510	.790	-.30981	.23592
Opposition	Urban	Semi-urban	.508925*	.183978	.006	.14648	.87137
		Rural	.635796*	.171171	.000	.29859	.97301
	Semi-urban	Rural	.126870	.143623	.378	-.15607	.40981
Rejection	Urban	Semi-urban	.332928	.186128	.075	-.03375	.69961
		Rural	.492491*	.173171	.005	.15134	.83364
	Semi-urban	Rural	.159563	.145301	.273	-.12668	.44581
Others	Urban	Semi-urban	-.383061*	.187549	.042	-.75254	-.01358
		Rural	-.172104	.174493	.325	-.51586	.17165
	Semi-urban	Rural	.210956	.146411	.151	-.07748	.49939

Post-hoc analysis gives the exact multiple comparisons between regions and factors associated with respect to their significance level. ANOVA table gives an idea on whether there is a difference between mean scores of three segments, whereby Post-Hoc analysis gives the clarity on where these differences lie actually.

With the help of above table-5.4, we can say that for first determinant Postponement, there is a difference between urban and semi-urban people ($p<0.05$) and, between urban and rural people ($p<0.05$), however there is not significant difference between semi-urban and rural people ($p>0.05$). For Opposition, there is a difference between urban and semi-urban people ($p<0.05$) and, between urban and rural people ($p<0.05$), however there is not significant difference between semi-urban and rural people ($p>0.05$). For Rejection determinant, there is a difference between urban and semi-urban people ($p<0.05$) and, between urban and rural people ($p<0.05$), however there is no difference between semi-urban and rural people ($p>0.05$). For other factors as determinant, there is a difference between urban and semi-urban people ($p<0.05$) however there is no difference between urban and rural people ($p>0.05$) and between semi-urban and rural people ($p>0.05$).

6. FINDINGS:

- There are 85%, 75%, 60% respondents from urban, semi-urban and rural regions respectively who use e-banking, whereby majority of semi-urban and rural respondents use only ATM facility and not other facilities.

On the other hand, 15%, 25%, 40% respondents from urban, semi-urban and rural regions respectively do not use e-banking.

- By analyzing the data using One-way ANOVA, result show that there is a significant relationship between regions and determinants of e-banking non-adoption such as postponement, opposition and rejection found to be significant ($p<0.05$).
- The relationship between regions and other factors as determinant of e-banking non-adoption found to be not significant ($p>0.05$).

7. RECOMMENDATIONS:

1. While contacting respondents, it was found that many of them were not aware with all types of e-banking services available. So banks shall communicate all the e-banking services using different combinations of various channels like television, radio, newspaper, text messages, emails, dedicated telecaller etc. to make e-banking user friendly. This is because; we always remember the things that are communicated repeatedly from different sources. Banks shall also make sure about integration of message among all the channels.
2. Among urban and semi-urban non-users of e-banking, privacy and security risks were the main concerns. For that, banks shall communicate about the precautions required to take while transacting online, as banks are already doing. In addition, cyber security shall also be improved on regular basis by respective departments of our country. Rural non-users of e-banking could not give their opinion on privacy and security risk, because they do not do much e-banking especially the services which are available via bank websites.
3. Many of the rural respondents were found not using e-banking services that are applicable via bank websites, mostly because of language barrier and lacking knowledge on functioning of website. Therefore, banks shall make websites applicable in regional languages and also delivering knowledge on how to use it.
4. From data, it is found that there are not much people who do not use internet whether in urban, semi-urban or rural regions. In addition, most of the non-users of e-banking across the three segments do not have affordability issues. Still there are many people who do not use e-banking. Means that internet subscribers use internet more for the purposes other than e-banking. Therefore, for banks, not having internet facility would not be a problem while addressing people to use e-banking.
5. Bank officials who perform their best to make customers aware and use e-banking rigorously shall be rewarded by top management. Because their small contribution can bring a big change by making our society techno savvy in terms of using e-banking services.

8. CONCLUSION:

This study has been conducted to essentially find the impact of regions (urban, semi-urban and rural) on e-banking non-adoption. The results show that they are significantly different. Banks shall adopt regions wise strategies to convert non-adopters into adopters. This will reduce bank's burden and if their small efforts can bring a noticeable change in our country in terms of more number of techno savvy people; no matter what the region is, banks must try it.

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