



CUSTOMER PERCEPTION OF VIRTUAL BANKING OVER REAL BANKING IN INDIA (A CASE STUDY OF SELECTED COMMERCIAL BANK)

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ABSTRACT

The world is changing the way it works. The process of globalization has taken everything in its hold. Existing idea are fast becoming obsolete. New ideas and new economic thing are taking over the world. Technology is considered to be the prime factor in leading the change. Its impact has influenced and is pervasive of all sectors of the economy. The millennium has started with new challenges and opportunities hidden in the unknown treasure of time. Technology is a very dynamic force. It is changing the competitive landscape of the financial services and banking industry and is influencing the way their products and services are sold delivered. The banking infrastructure experienced changes at many levels and paved a way for the development in information technology. Technology has moved from being a mere tool of automation for existing function to being a key factor in organization of institutions an important tool in decision making process and a major element in delivering services to customers. It is becoming more obvious that the Virtual has unleashed a revolution that is affecting every sphere of life. However, it may be noted that the traditional 'brick and mortar' banking with manual system does continue to prevail in most banks' rural branches in urban areas too, most of the urban co-operative banks continue to use the manual system of banking. The research studies the comparatively Study of real banking & virtual banking in India and its role in fostering relationships with customers and giving them more value. Study includes the evolution need and relevant, forces driving the proposed g, merits and demerits of real banking and virtual banking. This work will include the comparative study of virtual banking and real (Traditional Banking) banking. Results have shown that virtual corporation can produce financial rewards for the organization.

KEYWORDS: Banking, Traditional Banking, technology, manual system, customer value.

INTRODUCTION

The Internet is changing everything, from the way we conduct commerce, to the way we distribute information. Being an interactive two-way medium, the Net, through innumerable websites, enables participation by individual in B2B and B2C commerce, visits to shopping malls, books-stores, entertainment sides, and so on cyberspace. Virtual is an interconnection of computer communication networks spanning the entire globe, crossing all geographical boundaries. Touching lifestyles in every sphere the Net has redefined methods of communication, work, study, education interaction, health, trade and commerce. The Invention of Virtual & web technology has given Birth to so many new concepts in Business one of such example is emergence of virtual banking. Virtual banking is one of the latest emerging trends on the Indian banking Scenario. Usage of virtual banking, though present in India was rest restricted to foreign banks. Today

most of public sectors banks branches in metros and cities, have computerized front office operations (customer transaction) and their back office operation and information management system are also increasingly getting computerized and integrated.. The primary goal of baking organization is to develop a long term relationship with customer in trying to retain customers; banks are attempting to expand their service offerings. Most banks are determined to invent strategies which take into account the changing needs of their customers. Virtual banking work as a mile stone to achieve the customer satisfaction. Before comparing Virtual and Real Banking First researcher want to introduce that what is virtual Corporation: The Virtual Corporation to be a 'must have' road map for every corporation that will soon find itself, its members and most importantly, its customers, living, working and shopping in a virtual world.

STUDY BACKGROUND

Table - 1

S. No	Country or Region	Population 2009 Est.	User Latest Data	% Population	Growth 2000- 2009	% of World User
1	China	1,338,612,968	360,000,000	26.9%	1,500%	20.8%
2	United State	307,212,123	227,719,000	74.1%	138.8%	13.1%
3	Japan	127,078,679	95,979,000	75.5%	103.9%	5.5%
4	India	1,156,897,766	81,000,000	7.0%	1,520%	4.7%
5	Brazil	198,739,269	67,510,400	34.0%	1,250.2%	3.9%
6	Germany	82,329,758	54,229,325	65.9%	126.0%	3.1%

Customer perception of virtual banking over real banking

7	United Kingdom	61,113,205	46,683,900	76.4%	203.1%	2.7%
8	Russia	140,041,247	45,250,000	32.3%	1359.7%	2.6%
9	France	62,150,775	43,100,134	69.3%	407.1%	2.5%
10	Korea South	48,508,972	37,475,800	77.3%	96.8%	2.2%
11	Iran	66,429,284	32,200,000	48.5%	12,780%	1.9%
12	Italy	58,126,212	30,026,400	51.7%	127.5%	1.7%
13	Indonesia	240,271,522	30,000,000	12.5%	1,400%	1.7%
14	Spain	40,525,002	29,093,984	71.8%	440.0%	1.7%
15	Mexico	111,211,789	27,600,000	24.8%	917.1%	1.6%
16	Turkey	76,805,524	26,500,000	34.5%	1,225%	1.5%
17	Canada	33,487,208	25,086,000	74.9%	97.5%	1.4%
18	Philippines	97,976,603	24,000,000	24.5%	1,100%	1.4%
19	Vietnam	88,576,758	21,963,117	24.0%	10,881%	1.3%
20	Poland	38,482,919	20,020,362	53.0%	615.0%	1.2%
Top 20 Countries		4,374,577,583	1,325,437,422	30.3%	369.9%	76.4%

HIGHEST INTERNET USER COUNTRIES IN THE WORLD

From the above table 1, India is the fourth largest internet user countries in the world. The reach of internet banking

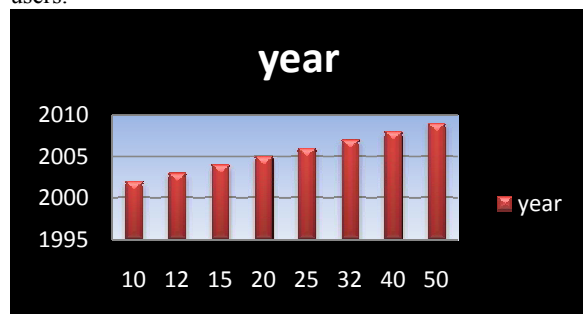
has also increased in India due to the internet usage increase.

TABLE 2: USE OF INTERNET BANKING IN INDIA

Year	2002	2003	2004	2005	2006	2007	2008	2009
Increase %	10	12	15	20	25	32	40	50

USE OF INTERNET BANKING IN INDIA FOR LAST FEW YEARS

As of June 2012, there are 137 million claimed Internet users in India (99 million from Urban India and 38 million from the rural parts of the country)," the report said. Out of these 137 million claimed users, there are 111 million active users, it added. The number of active users is growing at the rate of 19 per cent, faster than the claimed users.



STUDY RATIONALE

An effective Virtual Banking reduces operational costs and facilitates the information that affects efficiency and effectiveness of the transaction. It has many benefits like accessibility, saving time, user friendly, anytime and anywhere banking facility, Secure, Convenience, useful, protect environment in comparison to Real Banking Some of the benefits of virtual organizations include the following:

- Reduced operational costs.
- Reduced costs of providing information.
- A global presence (accessible anywhere).
- Always open for business (accessible anytime).
- People can connect with each other regardless of time, space, or Organizational boundaries, Localized skills shortages can be overcome.

STUDY OBJECTIVES

This Study plans to plug gap of research in the acceptance of virtual banking among Indian customers. The primary objectives of this study are to:

- Identify the factor that increases acceptance and usage of virtual banking in Indian customer.
- Examine whether Factor Analysis and Technology Acceptance Model can be applied in Virtual banking acceptance and usage.
- To study the security Risks in virtual banking over a real banking.
- To open up new vistas of research and develop a base for application of the findings in terms of implication of the study.

METHODOLOGY

Study

The study undertaken was exploratory in nature that has provided insights into perception of customer about Virtual Banking. The study was mainly based upon primary data. For this empirical research work, 'Survey' method had been chosen to systematically gather information from customer who are using Virtual Banking and customer who are using Real Banking. Also data has been collected from the employees of Govt. and Private Banks. Real banking and virtual banking are two ways for getting the benefits from bank. Both have benefits and disadvantages. Customer can use both or any of these facilities. The present study is an exploratory investigation to examine the impact of real banking and virtual banking and its different dimensions among customers prospective.

Sample

The initial sample of 150 customers was selected on random basis from Govt. and Private Sectors banks at Indore, Bhopal. In view of the research design the sample of 100 subjects was finally selected. The sample of the

present study consisted of 50 customer who are using Virtual Banking and customer who are using Real Banking from Govt. and private sector banks each (Total 100) of India.

Tools for Data Collection

The research was carried out through survey method. The Likert 5 scaling selected for this research is a one-dimensional scaling method. This scale was chosen because it has been widely used in previous researches, and is often used for testing hypothesis, or scoring records. Both of those methods are used in analyzing the results. Therefore I decided to use Likert scale from 1 to 5 for the questions in designed for hypothesis testing. The following scale was applied in the survey: 5=Strongly Agree; 4=Agree; 3=Neutral; 2=Disagree; 1=Strongly Disagree; 0 = No Opinion

Those questions with answer 0 were excluded from the statistical analysis. This decision is based on the notion that 0 refers to no opinion at all, and therefore cannot be taken into consideration when scaling the results

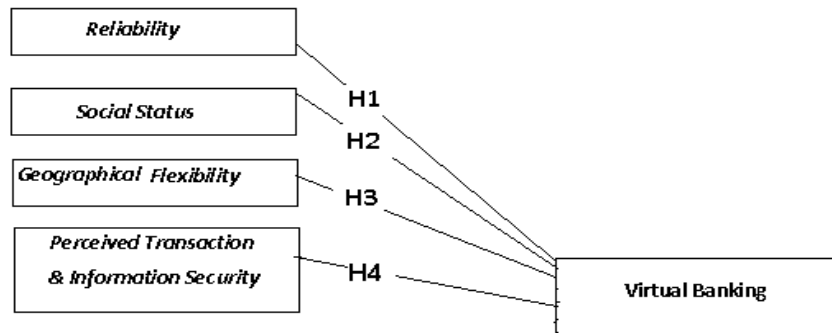
Tools for Data Analysis

Chronbach’s alpha is designed as a measure of internal consistency; that is, do all items within the instrument measure the same thing. Alpha is measured on the same scale as a Pearson r(correlation coefficient) and typically varies between 0 and 1. Although a negative values is possible, such a value indicates a scale in which some

items measure the opposite of what other item is measure the closer the alpha is to 1.00, the grater the internal consistency. Statistical Package for Social Science (SPSS 19.0). The final scale was subjected to principle component method of factor analysis using varimax rotation. The statistical tools used were analysis of variance, Z-test. If Z value equals or exceeds 1.96 and 2.58, it can be concluded that the difference between means is significant at 0.05 and 0.01 levels respectively (Garrett and Woodworth, 1981) the analysis of collected data was carried out using MS Excel and Statistical Package for Social Science (SPSS 19.0). The final scale was subjected to principle component method of factor analysis using varimax rotation. As a result of factor analysis, 4 factors emerged out **Reliability, Social Status, Geographical Flexibility, Perceived Transaction & Information Security**. on the basis of these factors, problem for the research design was formulated setting eight hypotheses and z-test was applied to test these hypotheses.

RESEARCH MODEL:

Based on the literature review and findings of the qualitative study conducted on a focus group the researcher developed a research model indicating the acceptance of virtual banking among customer



HYPOHESIS

Based on review of literature and past studies, the following Hypotheses were formulated for this study through empirical investigation. There is no significant difference in adaptation of Real Banking and Virtual banking in customer procreative for financial transaction. The formulation of hypothesis is an important stage of every research. It gives direction to the study besides this it also gives speed to the study. On the basis of review of available literature of Virtual organization and real organization

Null hypothesis

- H₀₁**- There is no significant difference in Real Banking and Virtual Banking in terms of Reliability.
- H₀₂**- There is no significant difference in Real Banking and Virtual Banking in terms of Social Status.
- H₀₃**. There is no significant difference in Real Banking and Virtual banking in terms of Geographical flexibility.
- H₀₄**- There is no significant difference in Real Banking and Virtual Banking in terms of Perceived Transaction & Information Security.

FACTORS	HYPOTHESIS	VIRTUAL BANKING		REAL BANKING		Z VALUE Z	REJECTED / NOT REJECTED
		Mean	S.D.	Mean	S.D.		
Reliability	H ₀₁	3.97	1.38	3.29	1.40	2.45	Rejected
Social Status	H ₀₂	4.73	0.44	4.6	0.55	1.31	Not Rejected
Geographical Flexibility	H ₀₃	3.96	0.76	3.40	0.67	3.51	Rejected
Perceived Transaction & Information Security	H ₀₄	4.03	0.63	4.36	0.49	2.33	Rejected

Z_{table}=1.96 at 5% level of significance

FACTORS	NAME OF THE FACTORS	ITEMS	FACTOR LOADS
F1	Reliability	4, 14, 15, Seven	2.89
F2	Social Status	17, Six	.90
F3	Geographical Flexibility	16, 10, 20	1.85
F4	Perceived Transaction & Information Security	11, 1, 3, 13	2.77

RESULTS AND DISCUSSIONS

COMPARATIVE ANALYSIS (According to Annexure 1)

Factors of Analysis

The scale was administered on 100 respondents; the scores obtained were subjected to factor analysis. Seven factors were identified. These are: Reliability, Social Status, Geographical Flexibility, Perceived Transaction & Information Security.

H₀₁ Reliability

This factor was measured by items 4, 14, 15, 7. “(Factor Load: 2.89)”

The factor ‘reliability’ is exhibiting total factor load 2.89. Significant difference was found in customer use of virtual banking and real banking in terms of ‘Reliability’ as $Z_{cal} (2.45) > Z_{tab} (1.96)$ at 5% level of significance, thus null hypothesis H01: Stands Rejected. This indicates that in customer prospective reliability in Virtual Banking (Mean=3.97) is more favorable as compare to Real Banking (Mean=3.29).

H₀₂ Social Status

This factor was measured by items 17, 6. “(Factor Load: .90)”

No Significant difference was found in customer use of Virtual Banking and Real Banking in terms of ‘Social Status’ as $Z_{cal} (1.31) < Z_{tab} (1.96)$ at 5% level of significance, thus null hypothesis H02: Stands Accepted.

H₀₃ Geographical Flexibility

This factor was measured by items 16, 10, 20. “(Factor Load: 1.85)”. Significant difference was found in customer use of virtual banking and real banking in terms of ‘Geographical Flexibility’ as $Z_{cal} (3.51) > Z_{tab} (1.96)$ at 5% level of significance, thus null hypothesis H03: Stands Rejected.

H₀₄ Perceived Transaction & Information Security

This factor was measured by items 11, 1, 3, 13. “(Factor Load: 2.77)” Significant difference was found in customer use of virtual banking and real banking in terms of ‘Perceived Transaction & Information Security’ as $Z_{cal} (2.33) > Z_{tab} (1.96)$ at 5% level of significance, thus null hypothesis H04: Stands Rejected.

CONCLUSION

Indian economy is witnessing stellar growth over the last few years. There has been rapid development in infrastructural and business front during the growth period. Internet adoption among Indians has been increasing over the last one decade. Indian bank has also risen to the occasion by offering new channels of delivery to their customers. virtual banking is one such new channel which has become available to Indian customers. Customer’s acceptance of virtual banking has been good so far. This chapter is an attempt to discuss the findings of

the present study in the light of available literature. The present study has confirmed that in customer prospective use virtual banking is differ as the use of real banking. The knowledge generated by the study has been merged with the available literature for meaningful understanding of the subject in focus. Bank could increase virtual banking adoption by making their customer awareness about the usefulness of the service. It is seen that from the study that the variable Usefulness has a positive influence on virtual banking use, therefore virtual banking acceptance would be increase when customers find it more usefulness. Social Status were identified the positive affect of virtual banking system. That means customer would increase virtual banking usages when they find that it will increase their social status among friends and family and society.

Bank should therefore try to develop their banking site and interface easier to use. Bank could also consider providing practical training sessions at their branches on usages of internet banking. Also, comparison was made between virtual banking and real banking based on these 4 factors. Out of four hypotheses formed, 3 null hypotheses were found to be rejected. virtual banking system and real banking system differ in terms of Reliability, Flexibility Perceived Transaction & Information Security. The Finding of the study would be useful for Indian banks in planning and upgrading their virtual banking services

IMPLICATIONS

Implication focus on the utility of the generated knowledge and its application for different purpose. The present study was pioneering effort to investigate in to the relationship between Virtual Banking and Real Banking as well as its implication on customer prospective. The research problems were examined very carefully using standardized tools for data collection. The data were statistically treated to arrive at the results. The study has brought important insights and suggestion various dimensions for improving or enhancing the effectiveness of executives. The research has provided the basis for researchers and practitioners to further investigate into specific areas related to virtual banking. Major issues related to Real Banking and their comparative study and implication. The present study will definitely help the executives to improve their baking utility, performance and become more effective. Virtual corporations are getting popular day-by-day. In western countries the scope of virtual corporations has made a tremendous progress. The scope of the proposed study is confined to the situation of the India. Similarly, the proposed study does not intend to throw any light on the MIS of the existing corporations, but definitely it intends to provide useful contribution to the cost minimizing factors which are beneficial to the organization. In this manner the current

study will prove to be a boon for the business persons to a great extent.

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ANNEXURE 1: ROTATED COMPONENT MATRIX

	Component						
	1	2	3	4	Five	6	7
VAR00004	.965	.072	.006	-.020	.055	-.006	-.052
VAR00014	.954	.087	.005	-.022	-.005	.016	-.072
VAR00015	-.905	-.158	.062	-.059	.018	-.120	-.016
VAR00007	.075	.883	-.097	-.011	.205	-.021	.131
VAR00017	.208	.863	-.033	-.015	-.039	.072	.053
VAR00006	.026	-.038	.779	.040	.153	.063	-.120
VAR00016	-.154	-.151	.709	.049	.245	-.108	.084
VAR00010	-.026	.425	.601	-.024	-.316	.272	.165
VAR00020	.075	.537	.540	.124	-.210	.221	.044
VAR00011	.036	-.004	-.018	.869	.027	-.003	-.132
VAR00001	-.109	.012	-.066	.784	.019	.010	.037
VAR00003	.099	-.052	.191	.562	-.056	.414	.234
VAR00013	.101	.057	.251	.559	-.240	.287	.252
VAR00009	-.115	.037	.067	-.033	.846	-.040	.025
VAR00019	.081	.081	.074	.018	.835	-.072	-.048
VAR00005	.292	-.181	.421	-.161	.503	-.103	.005
VAR00018	.120	.087	-.056	.016	-.053	.891	.019
VAR00008	-.039	.046	.106	.170	-.085	.852	-.050
VAR00002	.008	.007	.002	.018	-.090	.042	.843
VAR00012	-.105	.174	.001	.054	.076	-.039	.745