

Impact of Information Technology on Customer Satisfaction towards Banks in India with Special Reference to It Services Using SBI and HDFC Bank

Abstract

This research paper is undertaking the investigation of the impact of Information Technology (IT) on customer satisfaction towards banks in India with special referenc to IT services using SBI and HDFC bank as an example. It is set to explore the factors influencing customers' satisfaction of such technological innovation as the IT means of transaction. It is taken that the success or otherwise of an innovation (a new product or service) is much more decided by the way customers see it. The study goes further to assess the progressive deployment of IT in problem under investigation is presented. Aims and objectives and the research banking so far in the light of the bearing which customers' perception has on it.

Here in this paper the statement of the questions are firmly established as the guiding light to the subsequent sections that follow. The importance, scope and limitation of the study are presented

Keywords: Banking Industry, Information Technology.

Introduction

The banking industry has undergone tremendous changes with the introduction of information technology (IT). IT is a new paradigm in banks' product and service delivery.

The development of IT has changed the delivery of banking products and services worldwide. IT has helped banks to reduce operational costs, improve service quality, and customer relations. Electronic banking (EB) is a new paradigm in banks product and service delivery. IT products and services have become increasingly popular in the past three decades. Online banking has become the preferred way for many Indians to conduct financial activities. The banking industry operating in a complex and competitive environment has become aware of the need to serve its customers electronically. IT has significantly improved bank employees' performance and customer satisfaction.

Last few years evident that, Information and Communication Technology (ICT) have become a mean for improvement of financial system worldwide. In India, most of banks and financial institutions are offering IT based financial products and services to improve their business efficiency and speed of services e.g. called ebanking, internet banking, electronic fund transfer, electronic clearing, mobile banking etc. Impact of technology has brought a revolutionary change in the traditional banking process. Working hours are no longer considered important as the banking services are now available round the clock. On one side internet banking is helping the banks to meet the increasing needs of the consumers effectively and efficiently and on the other side banks are facing number of challenges due to changes in technology. The issues security and privacy are the major challenges to internet banking. Due to increasing competition in banking it has become very difficult to understand the consumer perception.

Significance of the Research

The goal of the study is to perform an empirical analysis of the current situation regarding the impact of information technology on bank productivity and the level of customer usage and satisfaction with e-banking services in the India. The study will enable us to determine which variables affect the level of adoption and satisfaction with e-banking



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services. The study is fully based on the statistical data analysis of the responses gathered from a representative sample of e-banking customers.

Objectives of the Study

1. To understand the benefits IT as compared to traditional banking, in terms of cost, efficiency, time, secrecy, quality of service and complaint resolution from the customers' perspective.
2. To measure the degree of customer satisfaction with the usage of IT in public and private sector banks.
3. To suggest the ways and means for the organizations to make more effective & better use of IT practices in the banking operations

The following null and alternate hypotheses have been formulated for this purpose:

H₀

There is no significant difference between the responses of the customers of SBI and HDFC banks on various IT parameters for comparison.

H_a

There is a significant difference between the responses of the customers SBI and HDFC banks on various IT parameters for comparison.

Scope and Limitations of The Research

This study focuses on the impact of information technology on customer satisfaction, as a only parameter, played on E-banking adoption by banks employing SBI and HDFC bank as a case study. It will be acknowledged that there are other factors that accounts for E-banking adoption outside of customers perspective perhaps to a lesser degree. The choice of banks as a case study may just present a fairly accurate objectivity. As smaller banks are known to face and respond to this challenge somewhat differently because they have less deeper pockets to make more tangible investments in new technological deployments. In similar fashion like all related course of study this research has its fair share of time and cost limitation which primarily has restricted the enquiry to the selection of a banks as a case study. Theoretically, it will be more robust to have so many banks incorporated into the study but often times reality begs such objectivity.

Hence generalizations based on the findings of this study may not be taken holistically in a cross-sectional analysis of the banking industry under the discourse of the undertaken research topic. On a final note, caution should be taken in regard of the method of empirical analysis used in the data presentation as the model of analysis employed is not outrightly immune to limitations inherent in all models, and this study have borrowed from such pre-existing models in our data analysis. However, investigation and conclusions can be considered valid to interpret the research query of this study in regards of big scope.

Review of Literature

Technological development in the banking sector

The technological development in the banking sector began with the use of Advanced Ledger Posting Machines (ALPM) in the 1980s and nowadays banks are using core banking solution (CBS) for providing better services to their

customers. Over the years several studies have been conducted both at the industry and academic level to examine the impact of IT on banking productivity and profitability.

Dos et al. [1993] studied statistical correlation between IT spending and performance measures such as profitability or stock's value. It is found that there is an insignificant correlation between IT spending and profitability measures, implying thereby that IT spending is unproductive.

Brynjolfsson and Hitt [1996] however, cautioned that these findings do not account for the economic theory of equilibrium which implies that increased IT spending does not imply increased profitability. More recent firm level studies, however, point a more positive picture of IT contributions towards productivity. These findings raise several questions about mis-measurement of output by not accounting for improved variety and quality and about whether IT benefits are seen at the firm level or at the industry level. Such issues have been discussed in detail by Brynjolfsson [1993]¹ and to a lesser extent by Brynjolfsson and Hitt [1996].

The study conducted by Gotlieb, and Denny [1993], is one of the studies that deals with the impact of IT on banking productivity per se. Computerisation is one of the factors which improves the efficiency of the banking transactions. They concluded that higher performance levels have been achieved without corresponding increase in the number of employees. Also, it has been possible for Public Sector Banks and Old Private Banks to improve their productivity and efficiency by using IT.

Theories and Concepts of Customer Satisfaction

Customer's satisfaction or dissatisfaction refers to people's ability of learning from their past purchasing experiences. According to Isac and Rusu (2014), these experiences not only lead to evaluation of the degree of satisfaction, it also can influence the perceptions and attitudes of customer towards a certain product or service. The following part is the critical review of several theories related to customer satisfaction which is significant for the development of this research.

Dissonance Theory

Dissonance Theory mentions that a customer who seeked for a high quality product but received a low quality product would compare the performance and experience a cognitive dissonance (Cardozzo, 1965). In other words, customers may make some cognitive comparison between their expectation on the product and the product's actual performance.

Equity Theory

Equity theory is built based on the argument that "one's rewards in exchange with others should be proportional to his or her investments" (Swan & Oliver, 1989). Equity commonly defined as perceived "fairness" as this theory suggests that customer's satisfaction arises if customer experience fair output or input ratio (Swan & Oliver, 1989). This theory also focuses on the exchange because it proposes that after the exchange, customer will begin evaluation

on the equity of the exchange (Oliver & Desarbo, 1988).

Value-Percept Theory

Value-Percept Theory which is proposed by Westbrook and Reilly (1983) suggests that the expectation of a product may not be in correspondence with what is valued and desired in the product. Therefore, as opposed to Expectancy-Disconfirmation paradigm (EDP) which uses expectations to analyze consumer satisfaction, Westbrook and Reilly (1983) argue that Value-Percept Theory provides a better framework which uses values as the comparative standards.

Assimilation Theory

According to (Anderson 1973), assimilation theory mentioned that there is some kind of cognitive comparison can be made by the customers in between their expectations about the product and the performance of perceived product. As mentioned by Isac and Rusu (2014), this assimilation theory can be supported and related to the theory of dissonance because dissonance theory form basis for the theory of assimilation.

Research Methodology

The research methodology focuses on the impact of information technology on productivity and customer satisfaction, as a only parameter, played on E-banking adoption by banks employing SBI and HDFC bank as a case study.

In this paper, the components about the methods implemented for the study are discussed. Furthermore, 400 of survey questionnaires are constructed, distributed and collected from the respondents.

In this research, descriptive research is used to discover the factors that affects the customer satisfaction towards online banking in SBI and HDFC bank, Lucknow, U.P.

In this study, a computer software program, Statistical Package for Social Sciences (SPSS) 20.0 is used for the purpose of evaluating the research questions and data analysis.

This part of research is an attempt to understand the customer satisfaction regarding the impact of Information Technology on banking services of the SBI and HDFC banks.

Table: Demographic Profiles of Respondents- Customers

S. No.	Demographics	Frequency	Percentage (%)
1.	Gender		
	Male	304	76
	Female	96	24
2.	Age		
	Below 25	56	14
	>26 to 35	104	26
	>36 to 50	128	32
	>51 to 60	112	28
3.	Occupation		
	Service	88	22
	Business	120	30
	Student	8	2
	Professional	184	46
4.	Annual Income		
	Dependents	8	2
	Below 3 lakhs	136	34
	>3 to 15 lakhs	184	46
	Above 15 lakhs	72	18
5.	Qualifications		
	>HSC	32	8
	HSC	48	12
	Graduate	128	32
	Post Graduate	192	48

Source: primary data

Table depicts that among the 400 respondents, representing customers of SBI and HDFC banks, 76% were males and 24% were females. Further, age-wise, 14% were in the age group of below 25 years, 26% in the age group of 26 to 35, 32% in the age group of 36 to 50 and remaining 28% in the age group of 51 to 60. Regarding occupation, 22% of the respondents were in service, 30% in business, 2% were the students and 46% were the professionals. Income-wise profiling of the respondents indicated that 2% were dependents, 34% of the respondents come under the annual income group of below 3 Lakh, 46% are in the group of Rs. 3 Lakh to 15 Lakhs and remaining 18% are in the last group of above Rs. 15 Lakhs. The qualification profile of the customers emerged as 8% respondents having qualifications under HSC, 12% HSC, 32% graduate and remaining 48% were post graduate.

The following table contains the application of One-way Analysis of Variance (ANOVA) test

Saving, Efficiency, Time Saving, Secrecy, Quality of Services, Complaint Resolution Comparison of Customers satisfaction towards SBI and HDFC bank in terms of Cost Saving, Efficiency, Time Saving, Secrecy, Quality of Services, Complaint Resolution

Table: One-way ANOVA test for comparison of banking in terms of cost, efficiency, time, secrecy, quality of service and complaint resolution has been done below Comparison of Customers satisfaction towards SBI and HDFC bank in terms of Cost

Factors for the customer satisfaction												
Options	Cost Saving		Efficiency		Time Saving		Secrecy		Quality of Service		Complaint Resolution	
	SBI	HDFC	SBI	HDFC	SBI	HDFC	SBI	HDFC	SBI	HDFC	SBI	HDFC
Poor	57	21	41	14	30	15	10	39	71	25	26	8
Fair	26	29	21	20	35	41	32	41	36	40	34	44
Good	21	51	29	76	39	53	54	23	14	41	49	41
Excellent	21	24	34	15	21	16	29	22	4	19	16	32
Total	125	125	125	125	125	125	125	125	125	125	125	125

Factors	Source	Sum Square	Df	Mean Sum Squares	Calculated Value	Critical Value @5% Significance Level	Result: H0
Cost	SSC	220.5	1	220.5	2.889238955	5.98	Accepted
	SSE	16967.5	6	2827.916667			
	SST	17188					
Saving	SSC	162	1	162	35.22633745	5.98	Rejected
	SSE	34240	6	5706.666667			
	SST	34402					
Efficiency	SSC	45.125	1	45.125	54.00092336	5.98	Rejected
	SSE	14620.75	6	2436.791667			
	SST	14665.88					
Time	SSC	648	1	648	3.613168724	5.98	Accepted
	SSE	14048	6	2341.333333			
	SST	14696					
Secrecy	SSC	1326.125	1	1326.125	1.141448194	5.98	Accepted
	SSE	6970.75	6	1161.791667			
	SST	8296.875					
Quality of Service	SSC	220.5	1	220.5	12.8250189	5.98	Rejected
	SSE	16967.5	6	2827.916667			
	SST	17188					
Complaint Resolution	SSC	220.5	1	220.5	12.8250189	5.98	Rejected
	SSE	16967.5	6	2827.916667			
	SST	17188					

Here, **SSC:** Sum of the Squares of Variations amongst the Samples (Columns)

SSE: Sum of the Squares of Variations within the Sample

SST: Total Sum of the Squares of Variations (SSC + SSE)

The Null Hypothesis is Accepted, where the Calculated Value is less than the Critical Value at 5% level of significance and Rejected where the calculated value is higher than the Critical Value. From Table 3.34, it can be clearly seen that Null Hypothesis is accepted for "Cost Saving", "Secrecy" and "Quality of Service", and same is rejected for "Efficiency", "Time Saving" and "Complaint Resolution".

This implies that there is no significant difference between the actual responses of the customers from the standard for "Cost Saving", "Secrecy" and "Quality of Service" and there is a significant difference in the responses of customers from the standards for "Efficiency", "Time Saving" and "Complaint Resolution". That is, IT is financially

advantageous compared to traditional banking in terms of "Efficiency",

"Time Saving" and "Complaint Resolution", and it is not in terms of "Cost Saving", "Secrecy" and "Quality of Service".

Finding

In the present study the impact of Information Technology on customer satisfaction of banks in India has been taken of both SBI and HDFC, to understand the growth banking sector. Both primary and secondary data has been used in this research, primary data was collected, coded, tabulated, analysed and interpreted. Quantitative tools like standard deviation and measurement of central tendency have been applied to make the market picture of e-banking more clear of the selected SBI and HDFC. Further, one-way ANOVA test have been applied for testing different hypotheses made during the study. An effort has been made to suggest Indian bank that how can they be benefitted by providing good IT products and services to their customer with effective promotional activities. The SBI and the HDFC have been chosen for this study on the basis of

their market share and their pattern of promoting IT facility.

Conclusion

Present research is based on relationship between the impact of Information Technology on productivity of bank and customers' satisfaction, promotional measures and customer service quality, as well as comparison of the quality of IT service between SBI and HDFC .

The broad conclusion that emerges from analysis of technology parameters is that Indian model of banking is characterized by opening up of traditional SBI and HDFC to a stiff competition from new SBI armoured with state of the art technology. This competitive environment served as a catalyst for SBI and HDFC to go for up-gradation of technology base and their size, scale and spread gave them the advantage in this regard. Technology adoption in SBI bank is slightly slow but its scale and size is massive and robust. The system is in its transitory mode in adoption of technology; back-end technologies have already been adopted, the front-end orientation of the system is in progress.

Scope for the Future Research

The present study has made an attempt to judge the impact of IT of selected SBI and HDFC , to assess the comparative service quality of IT between them and to analyze the impact of IT on customers. There still remains a viable prospect for future research.

1. The service quality of Indian banking sector has been assessed in Lucknow only. So service quality could be studied for other cities of country .
2. The present research focused only on comparative performance of SBI and HDFC in IT. Future research can be done to analyze the performance of HDFC bank also as they are the early adopters of IT.
3. The present study has assessed the performance of the bank on the basis of customer's and bank employee's perspective related to the marketing of IT and customer satisfaction level. However, to study the operational performance, that is, return on asset, return on equity, etc. can also be the area for research under this aspect.
4. The study has been focused only on the performance and service quality aspect of IT. The impact of IT on profitability and financial aspect of the same on them has been ignored which can give a good platform for future research.

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