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A Study on Innovation in Banking and its Impact on Customer Satisfaction

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ABSTRACT

Innovation through information technology (IT) has made inroads everywhere and banking is no exception to it. Whether it is private or public sector bank, everywhere innovation is the buzzword and technological breakthrough is witnessing new avenues of success. Competition is compelling everyone to move ahead and faster. Now, the working in public sector banks has been changing and customers are sensing the wave of innovation. These banks, which were working traditionally are now coming out and reaching to audience through billboards; FM radio and all possible media. Celebrity endorsements are now common in public sector banks as well. Core banking has added fuel to the fire of innovation. The ultimate results can be seen in terms of enhanced customer satisfaction in public sector as well as private sector banks. The research is an attempt to study the impact of innovative technology on customer satisfaction vis-à-vis public sector and private sector banks in Bhopal city. Primary data was collected from customers of these banks and analyzed, which has given significant results on the subject. It was found that private sector banks were having an edge in terms of success in innovation.

Keywords- Customers, innovation, private sector banks, public sector banks satisfaction JEL Code: Q 55.

I. INTRODUCTION

Bank is a financial institution that accepts deposits and channels the money into lending for customers. Post-liberalization, India has seen exceptional growth in the banking sector backed by rising charts of public sector and private sector banks. Since the Indian economy is moving on a development pathway, the banking sector is at a turning point. The entry of private players in banking has encouraged the application of marketing principles to business enterprises in the services (Apte, 2006). As per industry reports, the Indian banking industry has been growing faster than the real economy resulting in GDP increasing to higher levels. In the current century, banking reforms have changed the way banking is done. Banking reforms have made transformational changes in India. The bank nationalization process has witnessed spectacular achievements in the banking system through the expansion of bank branches (Kaul and Ahmed, 2005). The government of India declared nationalization for limiting the ownership and control of banks by a few big business houses. The government wanted to prevent the concentration of wealth and economic power, thereby mobilizing the savings of the common people. The banking industry can be classified as retail banking, commercial banking, corporate banking, investment banking NRI banking, etc. For years, banks are also adding value-added services for their customers (Pahuja and Kaur, 2007). Customers now have more options in choosing their banking operations. With the advancement of technology coupled with high technology, banking services now have become more user-friendly than ever.

Banks have played a fundamental role in the economy and the continued strength and stability of the banking system is a matter of general public interest and concern both in regard to its linkages with the real sector and for providing a payment and settlement system (Kapila and Kapila, 2001). Now, the banks are into consumer banking, corporate banking, finance, and insurance, investment banking, mortgage loans, private equity, savings, securities, asset management, wealth management, credit cards, etc. In India, modern marketing techniques adopted by nationalized banks and private banks include Internet banking as a major tool. Now, customers don't have to come to the bank; he/she can perform almost all the operations through their computer and even on their mobile phones. These activities include the opening of accounts, balance checking, transactions, tax filing, billing, loan applications, and many more activities are done online. Innovative service providers are interested in knowing how they can use new technological developments to automate and speed up processes, reduce costs, facilitate service delivery and relate more closely to their customers (Lovelock, 2004).

Core banking has led to a win-win situation for the banks as well as for the customers. Among all the banks, the State Bank of India (SBI) group was the pioneer in the computerization of banking operations in India. This is the largest and oldest bank in terms of revenue, assets, and market capitalization. As of March 2016, SBI had revenues worth US$41 billion with over 14,000 branches including 191 overseas branches. The Government of India nationalized it in 1955 when the Reserve Bank of India took a 60% stake and named it the State Bank of India. It has been ranked 285th in the Fortune Global 500 rankings of the world's biggest corporations for the year 2012. Forbes has ranked it as the 29th most reputed company in the world. Among private sector banks, ICICI Bank (Industrial Credit and Investment Corporation of India) is the largest in India. Founded in 1995, it is the second-largest bank in India by assets and third-largest by market capitalization. It offers extensive banking and financial services to retail as well as corporate customers through a variety of channels. It has specialized subsidiaries in investment banking, life and non-life insurance, venture capital, and asset management. The Bank has a network of 4,450 branches and nearly 14,000 ATMs in India and has a presence in 18 foreign countries. Its branches are in the United States, Hong Kong, Singapore, Sri Lanka, Bahrain, Qatar, and Dubai along with representative offices in UAE, China, Thailand, Malaysia, South Africa, Bangladesh, and Indonesia.

In India, automation started off with the State Bank of India in the initial phase in 1995, where the manual entry process was converted into a computerized system in phases. Passbook entry, demand draft making, fixed deposit making, and other operations were computerized to increase the speed of operations and productivity. All the banks were provided with computers connected to the local area network. This facilitated the linkage and automation of operations within the branch. All these efforts were aimed to enhance the productivity of banks along with customer satisfaction, which the banks have achieved to a large extent.

II. LITERATURE REVIEW

A brief review of the existing research in this field has been presented. The findings of the research are as follows: Prabhakaran and Satya (2003) identified the attributes related to the banking sector and studied the weightage given to each of the attributes in assessing the service quality. In an exploratory study of respondents in a metro city, they found that service quality is the major parameter in a highly competitive environment where product differentiation is not much. Reliability, tangibility, responsiveness, assurance, and empathy were found to be the major attributes of service quality. Gaur and Waheed (2003) studied the factors influencing the usage of interactive technologies in services business to determine the implications for developing these technologies to suit the users. For banking, selling the core product was the most important motivation for using interactive technologies. Service sector businesses emphasize the use of interactive technologies to build and maintain relations with the customers in long run. Bhat (2005) conducted a study on the performance of public and private banks with reference to service quality perception. Public and private sector banks were compared in various dimensions of service quality in North India. In terms of up-to-date equipment and physical facilities, private banks were ahead of public sector banks; in reliability, public sector banks were leading. Malhotra and Singh (2007) studied the factors affecting a bank's decision to adopt Internet banking in India. Results show that larger banks, banks with younger age, private ownership, higher expenses for fixed assets, higher deposits, and lower branch intensity evidence a higher probability of adoption of technology. Adoption of Internet banking by other banks increases the probability that a decision to adopt will be made.

Gupta and Dev (2012) studied the factors impacting customer satisfaction in Indian banks and their effects on customer satisfaction. A questionnaire was given to 400 customers of 13 retail banks in India. Five factors were suggested as driving customer satisfaction in banks namely: service quality, ambiance, client participation, accessibility, and financials. Sharma and Govindaluri (2014) studied the factors influencing the adoption of Internet banking in urban India. The factors of perceived usefulness, perceived ease of use, social influence, awareness, quality of internet connection, and computer self-efficacy are primary determinants of the attitude toward the use of internet banking in urban India. The attitude toward the use of internet banking can be used to predict the intention to use internet banking systems by users. Vyas and Raitani (2014) studied the drivers that lead a customer to switch from one service provider to another in the banking industry. The impacts of the influencing factors have been studied and tested empirically using exploratory factor analysis. The questionnaire was collected from banking customers and it was found that price, reputation, responses to a service

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failure, customer satisfaction, service quality, service products, competition, customer commitment, and involuntary switching have a significant effect on customers' switching behaviour. Kaushik and Rahman (2015) analyzed various antecedent beliefs predicting customers' attitudes toward and adoption of self-service technologies available in the banking industry. Results showed that antecedent beliefs affecting adopters' attitudes vary across different self-service technologies. It extends and tests the technology acceptance model by including two additional antecedents from the theories of adoption behavior. Bapat and Mazumdar (2015) explored the business strategy and its strategic orientation in the context of the Indian banking sector. Based on responses received from 330 banking officials working in various functional areas of banks in India, four major factors- competition, cost, innovation, and customer need were found dominant. Srivastava and Dey (2016) delved into perceived differences in brand analysis dimensions, such as brand-specific association, brand impressions, and brand credibility for young consumers in the context of banking services in India. Three types of banks- state-owned banks, private (Indian) banks, and global (foreign) banks were compared. A questionnaire was used for data collection. Authors report significant differences in perceptions among young consumers among the three types of banks for all the dimensions of brand-specific associations: perceived quality, perceived price, perceived brand social value, and perceived brand emotional value.

III. RESEARCH OBJECTIVES

Technological advancements have been highly productive towards customer satisfaction. It caters to the needs of the customers in all possible ways. Banks have also reached the peak of automation leading to faster processes. This study has been undertaken with the objective of finding the extent of customer satisfaction after the computerization of operations in a branch of State Bank of India (SBI) and ICICI Bank in Bhopal city.

IV. METHODOLOGY

Sampling: Among the population of customers of SBI and ICICI Bank, a sample size of 200 was selected for the study, which included 100 customers in each of the largest branches of SBI and ICICI Bank in Bhopal. These banks were considered representative banks since they were the largest in their own segment (i.e. public sector and private sector). The respondents included current and savings account holders as well as other customers who apply for loans, demand drafts, etc. These were the customers who have been visiting banks for at least five years. First-time visitors and pensioners were not included in the sample. It was a simple, non-probability sampling that comprised of businessmen, salaried people, and students irrespective of age or gender; but most of the customers were in the age group of 26 to 42 years. Their point of view was recorded through a primary data collection instrument and the efficiency of public and private sector banks after automation was determined.

***Tools for data collection and analysis*:** Secondary data were collected from sources like- journals, books, the Internet, newspapers, business magazines, etc. For primary data collection, a questionnaire containing 28 closed-ended statements on a Likert five-point scale was used; where factors causing customer satisfaction, especially with reference to Service Quality was enlisted, and the respondents were asked to mark their opinion in terms of the agreement. Pilot testing was done before actual data collection. After making minor syntax corrections, it was finalized. The questionnaire was given to 206 respondents, but due to delayed and incomplete responses, six questionnaires were excluded. The collected data were tabulated in an Excel sheet and analyzed by applying a z-test for testing the hypothesis.

Z-test: For applying the z-test, we work out the value of the test statistic and then compare it with the table value of z (based on 'z' distribution) at a certain level of significance for given degrees of freedom (i.e. .05). If the calculated value of 'z' is either equal to or exceeds the table value, we infer that the difference is significant, but if the calculated value of z is less than the concerning table value of z, the difference is not treated as significant.

Hypotheses: Hypotheses were formulated and tested for significance to prove the objectives in a scientific manner. The null hypotheses were as follows:

H01 – There is no significant difference in the reliability of private and public sector banks after the computerization of operations.

H02 – There is no significant difference in the speed of transactions in private and public sector banks.

H03 – There is no significant difference in promptness and cooperativeness of clerical staff in private and public sector banks.

H04 – There is no significant difference in the empathy of staff in private and public sector banks.

H05 – There is no significant difference in the overall performance of private and public sector banks.

The above hypotheses were tested and results were drawn.

V. ANALYSIS AND INTERPRETATIONS

Reliability Analysis: Reliability is the property of a measurement instrument, which causes it to give similar results for similar inputs. It allows studying the properties of measurement scales and the items that compose the scales. It calculates the number of commonly used measures of scale reliability and provides information about relationships between individual items in the scale.

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Table 1: Reliability Analysis

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
0.78	.80	28

Cronbach alpha is a measure of reliability. Reliability is the proportion of variability in the responses to the survey which is the result of differences in respondents. Alpha is a lower bound for the true reliability of the survey. The calculation of Cronbach alpha is based on the number of items on the survey and the ratio of the average inter-item covariance to the average item variance. Under the assumption that the item variances are all equal, this ratio simplifies to the average inter-item correlation, and the result is known as the Standardized item alpha. In the above table, all values are above the standard of 0.70, showing that the instrument is reliable and one can apply statistical tests and interpret the results.

Results of z-test: On applying the z-test, hypotheses H01, H02 H04, and H05 were rejected and H03 was found to be accepted at a 0.05 level of significance. It can be inferred that there is a significant difference in terms of reliability, speed of transactions, empathy, and overall performance between private and public sector banks before and after the computerization of operations. However, in terms of promptness and cooperativeness of staff, there is no significant difference when it comes to pre and post automation. Automation has been an advantage to all the banks and everyone has felt its benefits. However, in terms of speedy transactions and empathy from staff members, the private bank got an edge as stated by the respondents. In terms of overall comparison between SBI and ICICI banks, the performance of private banks seems to be better. However, it is not the financial performance, but performance in day-to-day customer processes. See the following tables:

Table 2: Results of z-test at 0.05 level of significance

Null Hypothesis	Statement	Calculated value	Results of z-test
H01	No significant difference in the reliability of private and public sector banks.	2.612	H01 Rejected
H02	No significant difference in the speed of transactions in private and public sector banks.	2.012	H02 Rejected
H03	No significant difference in promptness and cooperativeness of clerical staff.	1.147	H03 Not Rejected (accepted)
H04	No significant difference in the empathy of staff in private and public sector banks.	2.208	H04 Rejected
H05	No significant difference in the overall performance of private and public sector banks.	2.411	H05 Rejected

Table 3: Statistics related to variables

Variable	Type of respondents	Mean	Std. deviation	Std. error mean
Reliability	Private bank Public bank	3.19 3.12	.981 .1215	.091 .054
Speed of transactions	Private bank Public bank	3.52 3.47	.916 1.181	.094 .052
Promptness	Private bank Public bank	3.36 3.27	.942 .986	.087 .052
Empathy	Private bank Public bank	3.45 3.71	.927 .973	.081 .054
Overall performance	Private bank Public bank	3.61 3.54	.923 .97	.093 .051

Automation of systems has led to the higher speed of processes in banks; the private bank is leading. Likewise, when it comes to the empathy of staff, private banks have got an edge. However, public sector bank has an edge in reliability. Reliability has a direct relation to customer loyalty in banking (Vyas and Raitani, 2014) When it comes to the trust of common people in banks in India, public sector banks are preferred. In spite of issues like slow speed and lack of empathy, many people in India still prefer public sector banks. When it comes to promptness and staff cooperation, much difference is not seen in terms of privacy as well as public sector banks. The customers have always welcomed the user-friendly processes and lay-out after automation. They acknowledge that due to automation, transactions are now more accurate. However, public sector banks have to travel an extra mile when it comes to the swiftness of transactions along with customer care. Many respondents reported that in public sector banks, some clerks are not smart even after automation. Their non-cooperativeness is known to all. They do not bother to solve the customers' issues. People accept that automation has helped all, but it could not make any substantial change in the style of working among clerks in the particular branch of SBI. Few account holders due to this reason have shifted to other branches and other banks and some were planning for it.

VI. DISCUSSIONS

It can be inferred that except for reliability, private bank has been performing better than public sector bank. Customer trust is a major ingredient of success for the commercial bank (Gronroos, 1984). When it comes to reliability, some account holders yet prefer public sector banks due to trust. However, banking is now an area of tough competition. Due to cut-throat competition, private sector banks have to work on their toes. With the entry of more private players, the ground is set to benefit the customers. Private sector banks try to work in a professional way since they have a direct focus on revenues. Though public sector banks are also focusing more on creating a better marketing mix, there is more to achieve. Public sector banks have now resorted to celebrity endorsements and many other tools of advertising. Offering better service quality on specific parameters increases overall customer satisfaction (Srivastava and Dey, 2016). Apart from net banking sites, the app has been a common tool for customer convenience. All the efforts are in the direction of retaining the loyal customer base and getting new customers. The banking sector represents the pulse of the economy (Kaushik and Rahman, 2015). The policy-makers in public sector banks must take proactive steps towards improving upon promptness and empathy towards customers. Private sector banks have been gaining on the ground of account holders; so is the story with public sector banks. But, when more players would enter the field of banking, only the best service quality provider would win the game. Everyone agrees that automation in banking processes has unquestionably improved the way banking is done. Gone are the days of long queues in banks; now people operate banks through their mobile phones on 24x7 mode. Public sector banks have done commendable progress towards advancing their monetary graph; cutting costs and expanding in various activities. However, these banks need to work seriously towards improving the working of employees. If this aspect is taken care of, public sector banks can reach further avenues of success.

Limitation and Scope: The study was confined to particular branches of the State Bank of India and ICICI Bank in Bhopal city. The findings of the study should not be generalized to all the branches of banks and all the cities. The results may differ in other branches. Further study can be done on large sample size and comparison across various parameters can be done. Demographic variables of customers can also be delved into. The study has wide implications for public sector banks in particular. Much work can be done towards strengthening customer satisfaction in this regard.

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