EMPERICAL STUDY ON CUSTOMER SATISFACTION IN PUBLIC SECTOR AND PRIVATE SECTOR BANKS IN INDIA

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ABSTRACT

Satisfaction is vital concern for customers and organizations including banks. Satisfaction is a subjective concept and therefore difficult to determine and mainly depends on a countless factors and varies from person to person as well as product to product. The aim of this paper is to provide a preliminary comparative investigation of the customer satisfaction in public/private sector banks. Hence this paper deals with primary data collection from respondents of public and private sector banks such as State Bank of India, Corporation bank, AXIS bank and ICICI bank through a structured questionnaire. Collected data has been then analyzed using Taguchi's Design of Experiments.

Keywords: Customer Satisfaction, Design of Experiments, ANOVA and ANOM

INTRODUCTION

The term customer satisfaction is label we use to summarize a set of observable actions related to the product or service" Hayes, (2008). Akiran, N.K. (2002) suggested that satisfaction is when a consumer equates actual performance with expected performance. Cohen, et.al (2006) orates that satisfaction is the postpurchase assessment of products or services taking into consideration the expecttions. Ching-Wen, H. (2007), indicates that satisfaction is the feeling which originates during the process of evaluation. Magesh, R. (2010) also suggested that customer satisfaction is based on the experience of the customer with the service delivery process. Yoo, B. and Donthu, N. (2001) reveals that customers will be glad and satisfied when service provided by frontline employees is in good mood. Singh and Kaur (2011) determined the factors that have an impact on customer satisfaction as regards the working of select Indian universal banks. The study was conducted using the survey method. Data were collected through a well-structured questionnaire from a sample of respondents. The major findings of the study show that customer satisfaction is influenced by seven factors – employee responsiveness, appearance of tangibles, social responsibility, services innovation, positive word-of-mouth, competence, and reliability.Ganguli and Roy (2011) studied the factors affecting customer satisfaction in the Indian retail banking sector. Online structured questionnaire developed to determine the factors for customer satisfaction was distributed among the respondents. The dimensions were identified using an exploratory factor analysis (EFA). The paper identifies four generic dimensions in the technology-based banking services – customer service, technology security and information quality, technology convenience, and technology usage easiness and reliability. It was found that customer service and technology usage easiness and reliability have positive and significant impact on customer satisfaction. Hence this paper provides a preliminary comparative investigation of the customer satisfaction in public/private sector banks in India, such as State Bank of India, Corporation bank, AXIS bank and ICICI bank through a structured questionnaire. Collected data has then been analyzed using Taguchi's Design of Experiments.

METHODOLOGY

The primary data has been collected by customer survey of public sector banks and private sector banks in India (State Bank of India, Corporation Bank, AXIS Bank, ICICI Bank). The Structured questionnaire has been divided into 4 parameters as shown in figure 1. Schematic representation of methodology adopted for customer satisfaction is shown in figure 2.

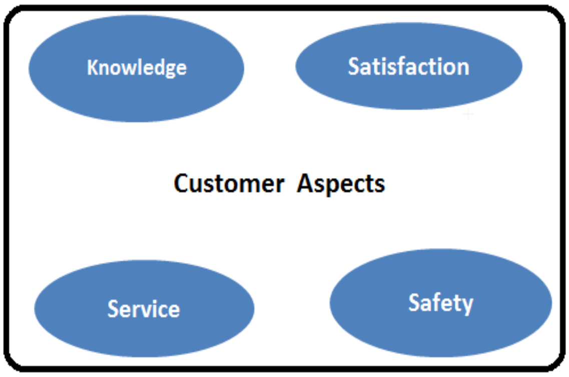

Knowledge
Satisfaction
Customer Aspects
Service
Safety

Figure 1. Categories of customer aspects

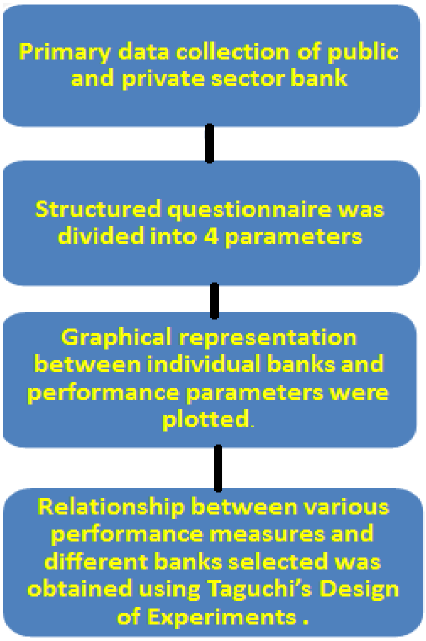

Primary data collection of public and private sector bank
Structured questionnaire was divided into 4 parameters
Graphical representation between individual banks and performance parameters were plotted.
Relationship between various performance measures and different banks selected was obtained using Taguchi's Design of Experiments .

Figure 2. Schematic representation of methodology adopted for customer satisfaction.

DESIGN OF EXPERIMENTS

In an experiment deliberate changes to one or more process variables are made in order to observe the effect that those changes have on one or more response variables. Design of experiments (DOE) is an efficient procedure for planning experiments so that the data obtained can be analyzed to yield valid and objective conclusions. The analysis is made using the popular software specifically used for design of experiment applications known as MINITAB 15. Before any attempt is made to use this simple model as a predictor for the measures of performance, the possible interactions between the control factors must be considered. In order to understand a concrete visualization of impact of various factors and their interactions, it is desirable to develop analysis of variance (ANOVA) and analysis of means (ANOM) table to find out the order of significant factors as well as their interactions.

Taguchi's Method

Taguchi techniques have been used widely in engineering and management design Ross, (1996) and Phadke, (1989). The main thrust of the Taguchi techniques is the use of parameter design, which is an engineering method for product or process design that focuses on determining the parameter settings producing the best levels of a quality characteristic (performance measure) with a minimum variation. Taguchi designs provide a powerful and efficient method for designing processes that operate consistently and optimally over a variety of conditions. To determine the best design requires the use of a strategically designed experiment which exposes the process to various levels of design parameters.

RESULTS AND DISCUSSION

This section discusses both graphical representation and Analysis of Variance (ANOVA), Analysis of Means (ANOM) using Taguchi's Design Experiments for various customer satisfaction measures of public sector banks and private sector banks in India (SBI; Corporation Bank, AXIS Bank, ICICI Bank)..

Graphical Relationship between Performance Measures and Various Banks Selected

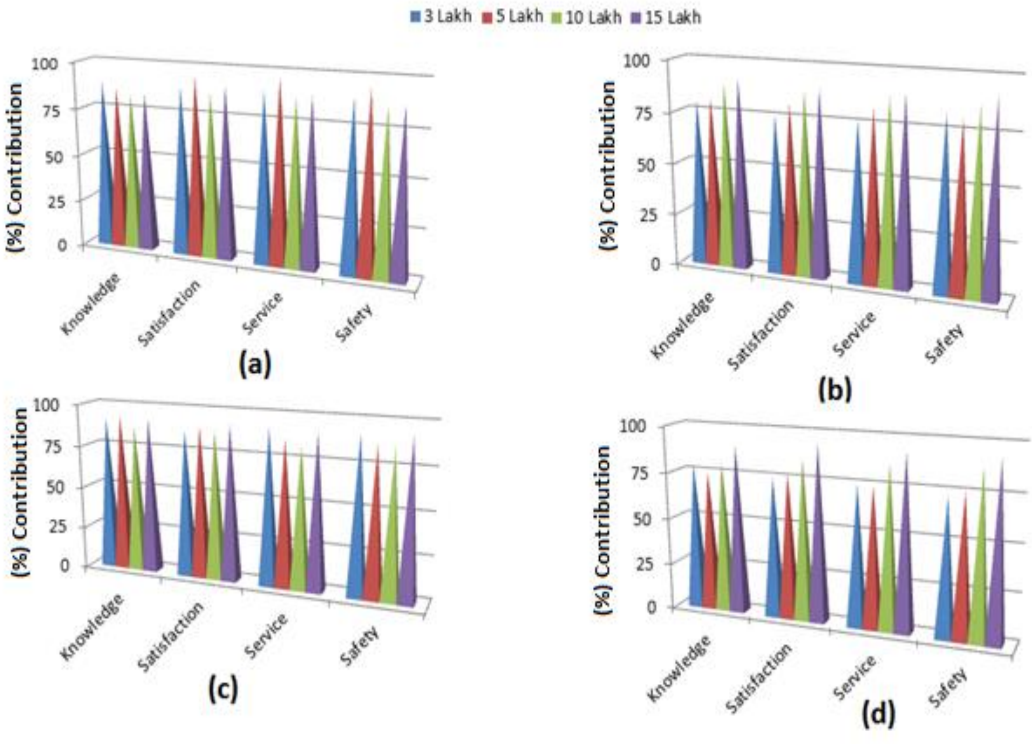


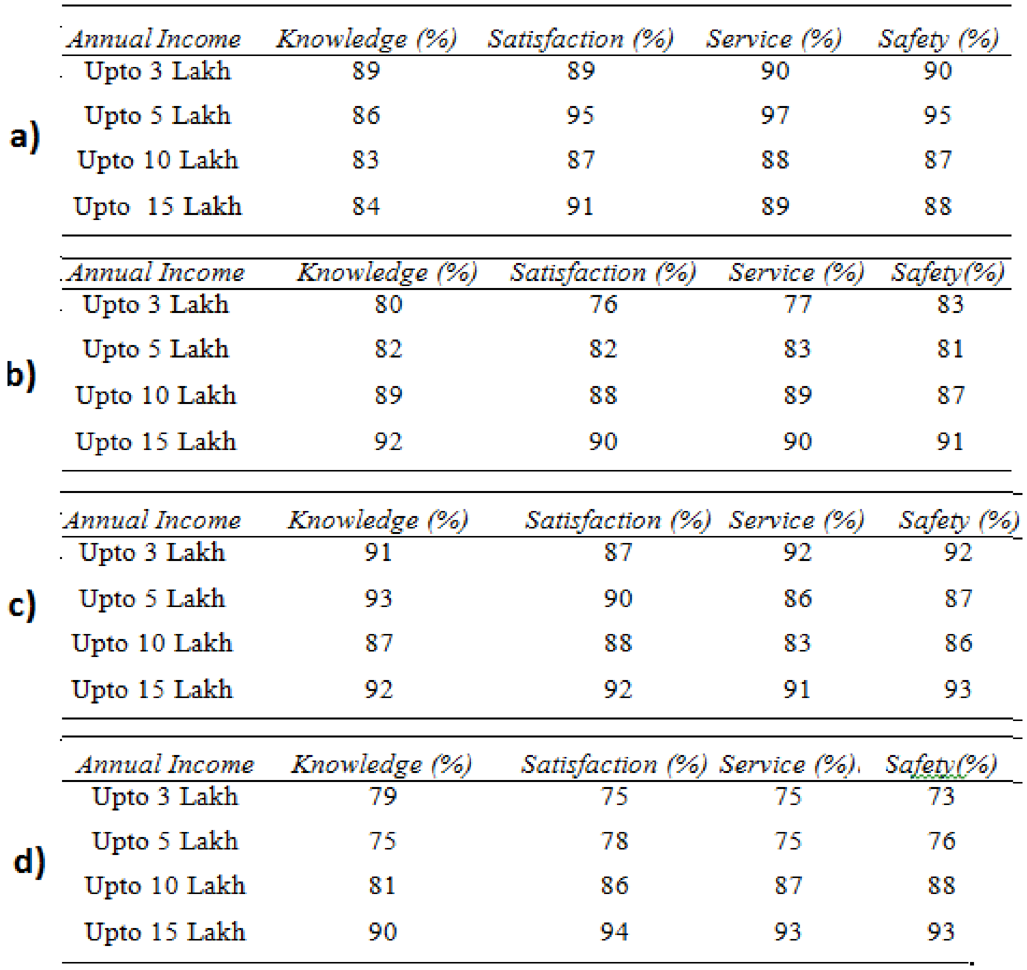
Figure 3. Graphical Relationship between percentage contribution and performance measures of (a) ICICI bank (b) SBI bank (C) AXIS bank (d) Corporation bank

From the graphical representation (Figure 3a) between performance measures and ICICI bank, it has been observed that customers above 3 lakh annual income were highly satisfied with knowledge of about 89% compared to customers having annual income of above 5 lakh, 10 lakh, and 15 lakhs. Similarly customers having annual income above 5 lakh were highly satisfied as far as satisfaction is concerned (95%).Similarly customers above 5 lakh annual income were 95% satisfied with service quality provided by ICICI bank. Finally customers above 5 lakh annual income were 95% satisfied with the safety provided by ICICI bank.

Further graphical representation (Figure 3b) between performance measures and SBI bank, it has been observed that customers above 15 lakh annual income were highly satisfied with knowledge of about 92% compared to customers having annual income of above 3 lakh, 5 lakh, and 10 lakhs. Similarly customers having annual income above 15 lakh were highly satisfied as far as satisfaction is concerned (90%).Similarly customers above 15 lakh annual income were 90% satisfied with service quality provided by SBI bank. Finally customers above 15 lakh annual income were 91% satisfied with the safety provided by SBI bank.

It has also been observed that for Corporation bank (Figure 3c), customers above 15 lakh annual income were highly satisfied with knowledge of about 90% compared to customers having annual income of above 3 lakh, 5 lakh and 10 lakhs. Similarly customers having annual income above 15 lakh were highly satisfied as far as satisfaction is concerned (94%).Similarly customers above 15 lakh annual income were 93% satisfied with service quality provided by Corporation bank. Finally customers above 15 lakh annual income were 93% satisfied with the safety provided by Corporation bank.

Table 1. Percentage contribution of performance measures of (a) ICICI bank (b) SBI bank (C) AXIS bank (d) Corporation bank



a)

Annual Income	Knowledge (%)	Satisfaction (%)	Service (%)	Safety (%)
Upto 3 Lakh	89	89	90	90
Upto 5 Lakh	86	95	97	95
Upto 10 Lakh	83	87	88	87
Upto 15 Lakh	84	91	89	88

b)

Annual Income	Knowledge (%)	Satisfaction (%)	Service (%)	Safety(%)
Upto 3 Lakh	80	76	77	83
Upto 5 Lakh	82	82	83	81
Upto 10 Lakh	89	88	89	87
Upto 15 Lakh	92	90	90	91

c)

Annual Income	Knowledge (%)	Satisfaction (%)	Service (%)	Safety (%)
Upto 3 Lakh	91	87	92	92
Upto 5 Lakh	93	90	86	87
Upto 10 Lakh	87	88	83	86
Upto 15 Lakh	92	92	91	93

d)

Annual Income	Knowledge (%)	Satisfaction (%)	Service (%)	Safety(%)
Upto 3 Lakh	79	75	75	73
Upto 5 Lakh	75	78	75	76
Upto 10 Lakh	81	86	87	88
Upto 15 Lakh	90	94	93	93

From the graphical representation (Figure 3d) for AXIS bank, it has been observed that customers above 5 lakh annual income were highly satisfied with knowledge of about 93%

compared to customers having annual income of above 3 lakh, 10 lakh, and 15 lakhs. Similarly customers having annual income above 15 lakh were highly satisfied as far as satisfaction is concerned (92%).Similarly customers above 3 lakh annual income were 92% satisfied with service quality provided by AXIS bank. Finally customers above 15 lakh annual income were 93% satisfied with the safety provided by AXIS bank. Table 4 shows the Annual income V/s Performance measures of AXIS bank. Table 1 shows the Percentage contribution of performance measures of ICICI bank, SBI bank, AXIS bank and Corporation bank.

Taguchi's Analysis

Taguchi's analysis based on design of experiments has been successfully used to study various performance measures. Both ANOVA and ANOM have been used for predicting the results obtained from the questionnaire.

Knowledge

From the main effect plot for SN ratio shown in figure 4(a) it is observed that AXIS bank played a significant role as far as knowledge is concerned compared to other banks. Also customers with annual income above 15 lakh were very much satisfied with the knowledge of the bank. Similar trend is also observed in figure 4(b) for main effect plot for means.

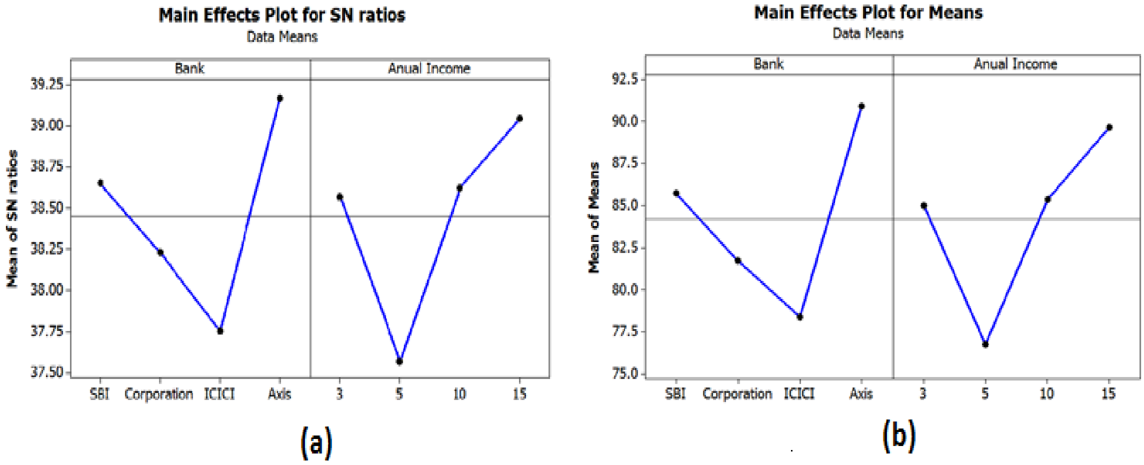


Figure 4. Main effects plot for Knowledge (a) ANOVA (b) ANOM

Satisfaction

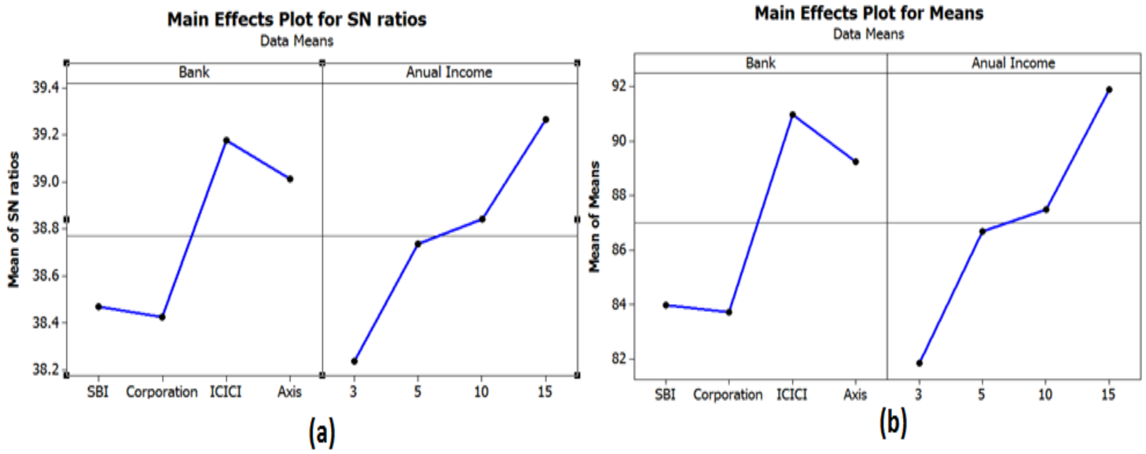


Figure 5. Main effects plot for Satisfaction (a) ANOVA (b) ANOM

From the main effect plot for SN ratio shown in figure 5(a) it is observed that ICICI bank played a significant role as far as satisfaction is concerned compared to other banks. Also customers with annual income above 15 lakh were very much satisfied with the the bank.

Similar trend is also observed in figure 5(b) for main effect plot for means.

Service

From the main effect plot for SN ratio shown in figure 6(a) it is observed that ICICI bank played a significant role as far as service is concerned compared to other banks. Also customers with annual income above 15 lakh were very much satisfied with the service of the bank.

Similar trend is also observed in figure 6(b) for main effect plot for means.

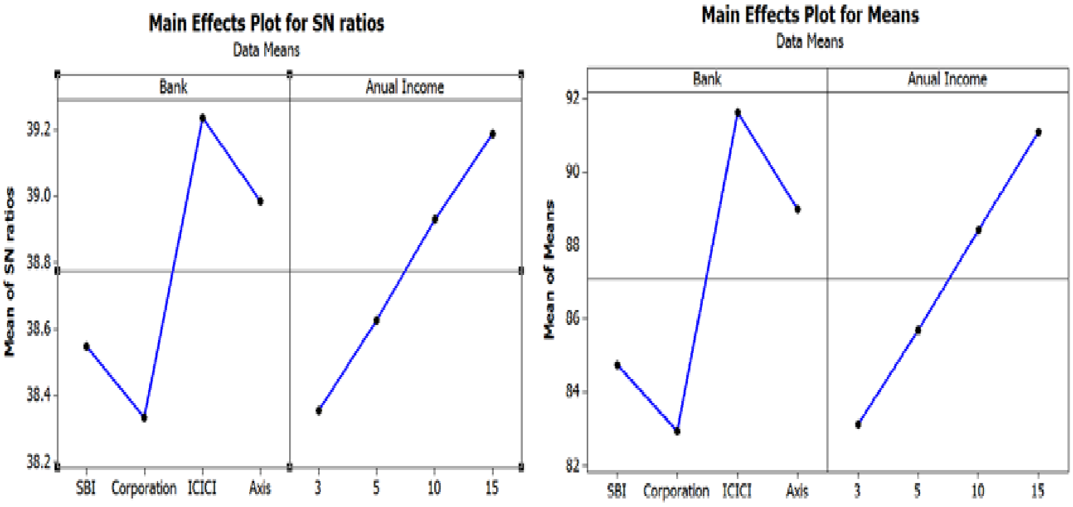


Figure 6(a). Main effects plot for Satisfaction (a) ANOVA (b) ANOM

Safety

From the main effect plot for SN ratio shown in figure 7(a) it is observed that ICICI bank played a significant role as far as safety is concerned followed by compared to other banks. Also customers with annual income above 15 lakh were very much satisfied with the safety of the bank.

Similar trend is also observed in figure 7(b) for main effect plot for means.

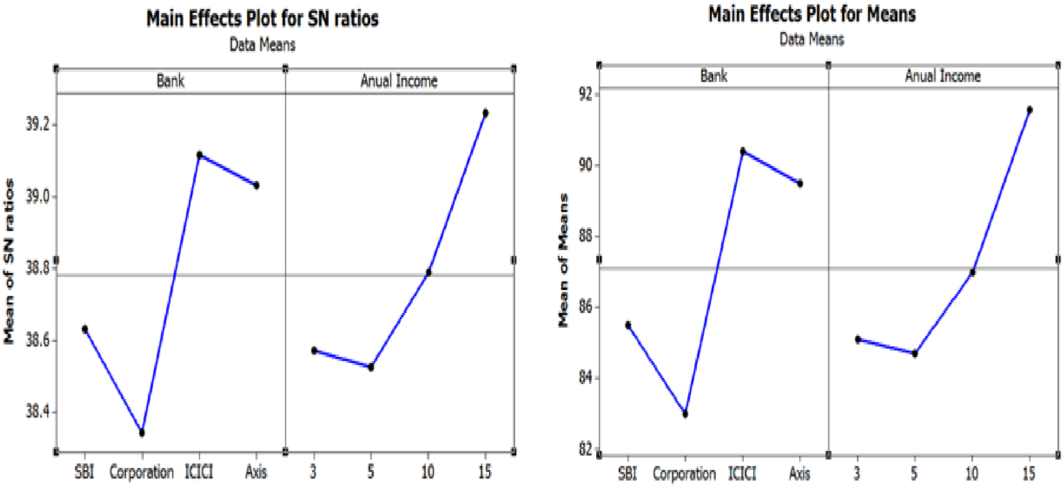


Figure 7. Main effects plot for Safety (a) ANOVA (b) ANOM

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From Taguchi's analysis (ANOVA and ANOM) for various customer satisfaction measures of public sector banks and private sector banks in India we interprete that "One who does not smile should not open his shop" refers to the attitude of service provider, who needs to bear "cheerful countenance" all the times. The customer is the cause for the prosperity of the bank or otherwise. Bank as a service provider, need to extend proper courtesy to the customer to solicit customer patronage. The art of extending required level of courtesy varies between individuals. Customer service is all about extending courtesy, rendering the service with speed and ensuring accuracy in respect of financial transactions. Hence, courtesy, speed, and accuracy are the three basic traits of good customer service.

With the advent of technology, the scalability of information technology and telecommunication, personalized service is slowly vanishing in the banking industry. Therefore courtesy elements do not find place in mechanized service. Modern banking is fully automated and information technology and telecommunication infrastructure created accomplisher role of human individuals. Large section of the population is tech savvy and happy with the service rendered by the machines. The service rendered through user machine dialogue has its own limitations. Website FAQs and bulletin board information's may not fully satisfy customer needs at times. Some of the financial management, investment management, enrichment of products etc. may be better understood by the customer through personal discussion with the banker, who is supposed to be financial expert, rather than through user machine dialogue. Again, India is still endowed with substantial illiterate population who need personalized service and verbal financial advice.

Banks front office staffs, which generally interact with the customers, need to bear cheerful countenance at all times and greet the customer with smile as the customer enters the customers' longue. Nonverbal and verbal communications with the customer infuses confidence in the mind of the customer and promotes loyalty towards the bank. As a part of the training program, the staff members of the banks need to be taught on mind dynamics and interpersonal relationship, so that customer relationship is managed well.

Satisfaction experienced by a customer depends on the quality of service rendered by the bank. By various methods of customer relationship management, the banks are striving hard to enhance customer satisfaction. The technology interface now available to deliver service is certainly enhancing the customer satisfaction. Customer satisfaction is achieved through cost reduction also. Alternative delivery channels created for speedier and accurate service at low cost is a win-win situation for the banks and the customer.

Knowledge management is a critical aspect in banking today. With the evolution of banking new exotic financial products are introduced as a part of diversification. Some of the banking products are so devised to impart value addition to the customer and product differentiation to compete with peers. While the products are launched form the centralized data center, the manpower in the service outlets are not educated about the products. Knowledge management in the bank has to improve, so that the front office staff is able to clarify the doubt in the minds of the customers. It is suggested that banks use the technology to create knowledge bank through a dedicated server, accessible as per user profile maintenance, anytime. Knowledgeable staff can render better quality of service and clarify all the doubts of the customer. This is enabled through instant access to knowledge bank server and retrieving required information.

Safety of wealth or financial transaction is of paramount importance to the customer in an era of technology banking. Banking technology is further scalable affording real time delivery of service. Nevertheless the risks attendant to such technology does not seem to have been mitigated causing concern to the customers. Some of the loss events described in media do not infuse much confidence with customers to opt internet banking. Banks need to own financial responsibility for losses incurred to a customer on account of systemic risk, lest customer confidence will deplete in technology banking.

CONCLUSIONS

1. Graphical representation and Analysis of Variance (ANOVA), Analysis of Means (ANOM) using Taguchi's Design Experiments can be successfully used to evaluate the performance measures of the bank.
2. From the graphical representation between performance measures and ICICI bank, it has been observed that customers above 3 lakh annual income were highly satisfied with knowledge of about 89% compared to customers having annual income of 5,10,15 lakhs. Similarly customers having annual income above 5 lakh were highly satisfied as far as satisfaction is concerned (95%).Similarly customers above 5 lakh annual income were 95% satisfied with service quality provided by ICICI bank. Finally customers above 5 lakh annual income were 95% satisfied with the safety provided by ICICI bank.
3. From the graphical representation between performance measures and SBI bank, it has been observed that customers above 15 lakh annual income were highly satisfied with knowledge of about 92% compared to customers having annual income of 3,5,10 lakhs. Similarly customers having annual income above 15 lakh were highly satisfied as far as satisfaction is concerned (90%).Similarly customers above 15 lakh annual income were 90% satisfied with service quality provided by State Bank of India,. Finally customers above 15 lakh annual income were 91% satisfied with the safety provided by State Bank of India, bank
4. From the graphical representation between performance measures and Corporation bank, it has been observed that customers above 15 lakh annual income were highly satisfied with knowledge of about 90% compared to customers having annual income of 3,5,10 lakhs. Similarly customers having annual income above 15 lakh were highly satisfied as far as satisfaction is concerned (94%).Similarly customers above 15 lakh annual income were 93% satisfied with service quality provided by Corporation bank. Finally customers above 15 lakh annual income were 93% satisfied with the safety provided by Corporation bank.
5. From the graphical representation between performance measures and AXIS bank, it has been observed that customers above 5 lakh annual income were highly satisfied with knowledge of about 93% compared to customers having annual income of 3,10,15 lakhs. Similarly customers having annual income above 15 lakh were highly satisfied as far as satisfaction is concerned (92%).Similarly customers above 3 lakh annual income were 92% satisfied with service quality provided by AXIS bank. Finally customers above 15 lakh annual income were 93% satisfied with the safety provided by AXIS bank.
6. From the main effect plot for SN ratio it is observed that AXIS bank played a significant role as far as knowledge is concerned compared to other banks. Also customers with annual income above 15 lakh were very much satisfied with the knowledge of the bank.
7. From the main effect plot for SN ratio it is observed that ICICI bank played a significant role as far as satisfaction, service and safety is concerned compared to

other banks. Further customers with annual income above 15 lakh were very much satisfied regarding service, safety of ICICI bank.

8. Customer patronage for the private sector banks is more than public sector banks.

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