



Technology supported CRM in Indian Banks : From Customers' Perspective

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98347 48201 hianjud18@gmail.com Theme for the paper : IT for banking sector

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Abstract-

Financial Institutions across the globe are investing large amount of money in ICT (Information and Computing Technology) in general and e-CRM (Electronic based Customer Relationship Management) in particular. Indian banks are no exception to this trend. After passing through the ACID test of global meltdown during 2007-2009, banks have become more cautious about the returns on investments (ROI) in technology.

Most of the banks in India have already switched over to core banking solution (CBS) and the rest are on the way due to the norms of Reserve Bank of India (RBI) to shift all the banks on CBS before 2011. With extensive support from Information Technology, banks are expecting sustainable relationship with customers.

Surprisingly, according to the survey by Database Group, 65% of the banks are not getting the expected results from IT-based customer relationship management (IT-CRM).

The researcher tried to understand the customers' perspective about use of IT-enabled CRM in Indian banks and benefits of the same to the customers and bankers. Survey of customers' satisfaction was conducted administered through questionnaire (5-point Likert scale). The analysis of the results was done using SPSS.

Findings reveal that there is relation between customer satisfaction and use of IT-enabled services to customers.

Keywords- IT-CRM, Customer Satisfaction, SERVQUAL, KANO

I. INTRODUCTION

RELATIONSHIP MARKETING (RM)

RM is basically an offshoot of marketing function which emphasizes on customer retention and satisfaction. This aims at long-term relationship between buyer and seller with the goal of better services. According to Berry and Leonard (1983), relationship marketing can be applied when there are competitive product alternatives for customers to choose from; and when there is an ongoing and periodic desire for the product or service. In the nutshell, we can say that relationship marketing is to build and maintain a base of committed customers who are profitable for the organization. Basic reason behind so much of stress on Relationship Marketing is that a long-term customer is less likely to switch over to other brand or product. Also, long-term relationship with customers acts as free mouth publicity of the organization's products and services. This not only helps in smoother interaction between employees and customers but also makes employees' job easier.

Dawkins and Reichheld (1990) suggest that, Relationship marketing focuses on four major activities : Customer valuation, customer retention measurement, identifying reasons for defection and develop a corrective plan. Christopher et al (1991) look at relationship marketing as a "tool to turn current and new customers into regularly purchasing clients and then progressively move them through being strong supporters of the company and its products to finally being active and vocal advocates for the company". As mentioned in the book by Mohamed and Sagadecan (2002) an organization has to have a strategic approach towards relationship building program. Such a strategy depends upon internal as well external factors like nature of business, its size, its market share, nature of product, product type, volume of sale, geographic concentration, socio-economic status and life style of customers. Some of the strategic initiatives towards implementation of relationship management program, generally used in combination are: People, Process, Product, Organization (top management), service standards, concentration on competitors, customer analysis, cost analysis, buying patterns, customized services, attention to changing requirements of the customers, training to service providers, incentive for customers, total care program and building switching barriers.

Both the stakeholders, i.e. customers as well as the firms are in win-win situation through relationship marketing. Some of the benefits to customers are as follows:

- Sense of confidence and trust in the supplier / service provider
- Sense of personal relationship and familiarity
- Special treatment by the suppliers / service providers

On the other hand, the firms also get some benefits out of this long-term relationship. They are as follows:

- Long-term relationship with the consumers
- Free mouth publicity through satisfied customers
- Increased level of comfort in the interaction between employees and customers Any marketing related concept is incomplete without the mention of Phillip Kotler. In the view of Phillip Kotler, Relationship marketing emphasizes on two important issues-optimize relationships with customers if you understand and manage relationships with other relevant stakeholders.-the tools and techniques used in marketing to customers, such as marketing planning and market segmentation, can also be used equally as effectively in managing non- customer relationships.

Relationship-based marketing involves another major activity i.e. estimating customer lifetime value which in turn aims at lifetime profitability.

CUSTOMER RELATIONSHIP MANAGEMENT

According to Kotler “CRM is about dealing with each customer individually by means of adding value to each customer’s daily life.” (Temporal and Trott, 2001).

“CRM is perhaps best described as an overarching business strategy built on a three-legged stool of technology, new business processes and cultural transformation. Neglect any one of the three legs, and projects teeters.”, (Engen, 2001). Payne and Frow (2005) published a more sophisticated definition of CRM as – a strategic approach that is concerned with creating improved shareholder value through the development of appropriate relationship with the key customers and customer segments. CRM unites the potential of relationship marketing strategies and it to create profitable, long-term relationships with customer and other key stakeholders. It provides enhanced opportunities to use data and information to both to understand and co-create value with them. This requires a cross-functional integration of process, people, operations and marketing capabilities that is enabled through information technology.

Gartner Group, possibly the largest group of consultants involved into extensive research in the area of Customer Relationship Marketing (CRM), define CRM as “CRM ...an enterprise wide business strategy designed to optimize profitability, revenue and customer satisfaction by organizing the enterprise around customer segments, fostering customer-satisfying behaviors and linking processes from customers through suppliers.”. Shainesh and Sheth (2006), in their book on CRM discuss the results of the survey by TARP, major findings of which are

- 95 percent of the customers do not bother to complain, they just take their business elsewhere
- Most loyal customers take time to complain. This enables the product / service provider to improve and ensure that such mistakes do not recur.
- A typical dissatisfied customer will tell an average fourteen others about their experiences, who in-turn will convey this to average other six people.
- 70 percent of customers who complain will do business with the company if it quickly takes care of service problem.



Figure 1: Major components of CRM

BANKING INDUSTRY IN INDIA

History of Indian banking can be traced back to 1870, when Bank of Hindustan was set up. This was followed by addition of presidency banks under Presidency Bank's act 1876 i.e. Bank of Calcutta, Bank of Bombay and Bank of Madras. In 1921, all the presidency banks were amalgamated to form Imperial bank which worked as central authority to control rules and regulations for Indian Banking, before origination of RBI. It was in 1934, when RBI act was passed and RBI became the apex bank without any major government ownership. 1955, RBI acquired Imperial bank, which was then renamed as State Bank of India in 1959. Early 90s was a milestone in the journey of banks in India in which Amendment of Banking Regulation Act in 1993

Witnessed entry of many new private banks. (<http://www.banknetindia.com/banking/boverview.htm> accessed on 3rd Jan 2010)

TECHNOLOGY DEPLOYMENT IN INDIAN BANKS

Banks are next to defense departments to deploy new technology. Information technology is no exception. From technological exploration in banks in India, overall journey of techno-savvy banks can be five distinct phases.

- First wave – 1980 -Back Office Automation
- Second wave – 1985-Branch level automation
- Third wave – 1990- Core banking –Any time any where
- Fourth wave – 1995 -ATMs
- Fifth wave – Internet and mobile banking

CHALLENGES BEFORE INDIAN BANKING SECTOR

Banks in India, till the end of early 90's enjoyed monopoly and was more of 'sellers market'. Public sector banks, due to RBI structure of regulations and protection from the government faced least competition. But the scenario changed in late 90's and all the banks, whether private or public sector started experiencing the heat of severe competition. Following are some of the major challenges that are forcing the banks to assess their strategies and policies:

- Entry of foreign banks
- Constantly changing technology
- Providing Customized services
- Risk Identification and mitigation

Department of Information Technology of RBI, in its vision for technology in financial sector, published in June 2007 (<http://rbi.org.in> accessed on 28/10/09), mention its corporate objective as "Enabling financial sector to leverage on IT for better customer service, improved housekeeping and overall systemic efficiency". RBI in its vision for 2008-2010, there is great scope for changes. Few of the remarkable areas as a part of vision are sighted below:

- RBI expects IT to continue predominant factor as a catalyst in the forces of changes.
- All banks would have gone for CBS (Core banking solution) and large portion of their branches will be operational on
- CBS.Introduction to XML (Extensible Markup Language) for reporting to RBI
- Centralization of banks that will benefit CR, customer profiling and differentiation for better customer service.
- Integration of Computerized Currency Operations and Management Systems (ICCOMS) for effective information collection about currency notes movement in the country.

STATUS OF IT-BASED CRM IN FINANCIAL INSTITUTIONS ACROSS THE WORLD

Initial implementations of CRM in banks unfortunately were equated to a series of IT-based solutions.

CRM is a strategy that places the customer at the heart of all organizational processes and policies, to improve customer satisfaction which in-turn is expected to improve the profits.

Some of the reasons that are pushing the banks to deploy technology are:

- Huge volume of operations
- Geographically scattered nature of its networks
- Security concerns
- Scattered workforce

According to Sanjeev Kumar (2008), only a handful of retail banks in India can boast of globally integrated delivery channels that are built on standard technology principles. These channels can, for example, deliver consistent balances regardless of the customer's location because of the consistent architecture.

II. LITERATURE REVIEW

'A crucial element of all research degrees is the review of relevant literature. So important is this chapter that its omission represents a void or absence of a major element in research', Afolabi (1992).

According to Bourner (1996) there are good reasons for spending time and effort on a review of the literature before embarking on a research project.

Before deciding on investing in new CRM programs, Ramsey (2003) suggests critical strategies that organizations need to be aware of. These strategies include: Customer centricity, Use of right channel for communication and Managing brand. Ramsey, S. (2003) and Dotun Adebajo (2003) mention that due consideration is not given to factors like while organization culture, process and legacy IT systems while selecting CRM solution.

Results of the survey of 100 companies including retail, banking, utility and insurance by shows that 64% of the banks have a CRM strategy, key database links but only 33.5 % of them can actually implement CRM (Database Group (2006). This huge gap is a strong reason for research in this area.

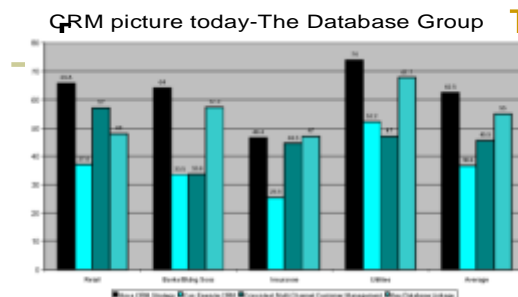


Figure 2 : Database group survey (2020)

Shah and Siddiqui (2020), as a part of their research work, studied Woolwich bank in UK from the point of view of organizational critical success factors in adoption of e-Banking as Understanding the customer, Organization flexibility, E-Channel specific marketing, Rapid delivery of services, System and channel integration, 24-hours availability of services, Availability of resources, Support from the top management, Security, Having multiple channels, Fast responsive customer service, Mixed strategy selection of vendors, Systematic change management.

Neborg and Nielsen (2003) surveyed 278 banks in Denmark, Finland, Norway and Sweden to test the impact of size of banks on its ability to explore information technology and use of internet banking. An interesting finding of the study indicates that there is no relation between size of the bank and second level performance. However, large banks have internal resources like information technology knowledge and higher level of adoption of internet banking and CRM technology. This resulted into higher score for front-lie support and formal reporting system. Statistical support for the analysis is by using Kendall tau b-coefficients based on grouped variables.

The study by Rapp, Trainor and Agnihotri (2009) examines the symbiotic nature of technology and other resources for durable customer relationship.

Study revolves around eight different hypotheses, interrelated to finally suggest that there is significant relationship amongst CRM technology, CRM performance and organizational performance.

The results demonstrate significant relationship between customer relationship performance and organizational performance ($\beta=0.65$) and customer relationship performance and customer-linking capabilities ($\beta=0.35$). The construct shows very high reliability, consistently above 0.8. Major limitation of the study is that the inferences are based on a cross-sectional (snapshot) based study and not longitudinal, which can add some more value to the results.

Neborg and Nielsen (2003) surveyed 278 banks in Denmark, Finland, Norway and Sweden to test the impact of size of banks on its ability to explore information technology and use of internet banking. Paper also tries to look into the ways and means by which small, medium-sized and large banks face the financial challenges as well as customer satisfaction to cope up with changes. An interesting finding of the study indicates that there is no relation between size of the bank and second level performance. However, large banks have internal resources like information technology knowledge and higher level of adoption of internet banking and CRM technology. This resulted into higher score for front-lie support and formal reporting system. Statistical support for the analysis is by using Kendall tau b-coefficients based on grouped variables.

III. RESEARCH DESIGN

Research Design for the present study comprises of Objectives, Hypotheses, Sampling frame, Data collection methods and Analysis and conclusions.

a. Objectives of the study :

1. To test whether there is any relationship between extent of IT and performance of banks at secondary level (Customer relationship Management)
2. To identify factors affecting customer satisfaction for customers of banks

b. Hypotheses :

H1: Technology based channels (Call center, ATM, Net banking) in banks act as mediator for better customer relationship management results into increased customer satisfaction

H2: Overall customer satisfaction of bank customers varies for public, private and cooperative banks.

c. Sampling frame – The study takes into consideration public sector, private and cooperative banks in Pune city. Pune is considered to be fastest growing city and moving towards metro culture, Almost all renowned banks have their

branches in Pune. Study covers 12 different banks in Pune out of which 5 are public sector banks, 4 private sector banks and 3 cooperative banks. Customers’ perspective is considered as the basis for assessing the extent of IT utilization to achieve better customer relationship management and then increased customer satisfaction.

d. Secondary data – Secondary data was collected through different research journals, magazines and books. List of references for secondary data is attached at the end of the paper.

e. Primary data – Primary data was collected from customers of different banks through an extensive questionnaire. 319 customers were distributed either printed or online questionnaire published on Google Docs. 238 customers responded back, out of which 189 (response rate is 59%) completely filled observations are considered for the further analysis.

Questionnaire is designed based on the two models for evaluation of customer satisfaction. In the SERVQUAL model, Parsuraman, Berry and Zeithaml (1988) suggest five major factors as reliability, assurance, responsiveness, empathy and tangibles affect overall satisfaction of customers.

Another model by N. Kano et al. (1984) segregates the factors that can have positive impact on customer satisfaction into basic factors (must haves), excitement factors (attractive) and performance factors. Three more types of attributes mentioned by Kano are indifferent attributes, questionable attributes and reverse attributes.

RELIABILITY STATISTICS

Cronbach’s alpha

Items considered for reliability- Items under the question numbers 22, 31, 35, 36 and 37 i.e. in all 46 items from customer questionnaire, were considered for the reliability analysis. Cronbach’s alpha test resulted in 0.803 (80.3%). This value was calculated using 185 (98.1%) valid cases out of 189.

Table 1: Case Processing Summary

		N	%
Cases	Valid	185	98.1
	Excluded(a)	8	1.9
	Total	189	100.0

Table 2: Cronbach’s alpha test Reliability Statistics

Cronbach's Alpha	N of Items
.803	46

Reliability Statistics-Guttman Split-Half

Another test applied for testing reliability of data was Guttman Split-Half test. The Spearman coefficient for equal length form came out to be 0.724 and for unequal length came out to be 0.730. The Guttman Split-Half value came out to be 0.723(72.3%).

Table: Guttman Split-Half

Correlation Between Forms		.567
Spearman-Coefficient	Brown Equal Length	.724
	Unequal Length	.730
Guttman Split-Half Coefficient		.723

- a. The items are: bank code, Avg ATM, Avg CSI call cent.
- b. The items are: Avg CSI call cent, Avg netbanking, Avg CSI.
- g.SPSS 15.0 version is used for statistical analysis of the data.

IV. ANALYSIS OF THE RESULTS

a. Descriptive Analysis-Some of the basic descriptives of the data collected are as follows: The respondents belong to different age categories as shown in table 3:

Table 3: Age group frequency

Age group	Frequency
Below 25	78
25-35	73

36-45	20
45 Onwards	19

b. Factor analysis-

Table 4: Rotated Component Matrix (a)

	Component	
	1	2
A. Branch location	.097	.523
B. ATM service	.232	.712
C. Personal attention	.441	.233
D. Net banking service	.268	.648
E. Modern outlook of the branches	.632	.242
F. Security Provisions	.493	.754
G. Complaint follow up	.657	.401
H. Complaint resolving time	.836	.091
I. Service hours	.798	.118
J. Speed of delivery	.787	.283
K. Customized services and products	.347	.712
L. Cooperation from Staff	.688	.318
M. Geographical spread of the bank	.828	.229
N. Service charges	.740	.399

Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a Rotation converged in 3 iterations.

As shown in table 4, the factors that may affect overall customer satisfaction after Factor analysis shows factors loading on 2 major components. The two components can be identified as related to bank policies as well as intrinsic knowledge and others related to quality of IT-based services.

c. Frequency table- The table 5 shows frequency and percentage of responses depending on nature of bank (i.e. public, private, cooperative). Foreign banks are not under the scope of the study, hence ignored.

Table 5: Frequency of records for different types of banks

		Frequency	Percent
1	Cooperative	60	31.74
2	Foreign bank	2	1.05
3	Private sector	63	33.33
4	Public sector	64	33.86
		189	100

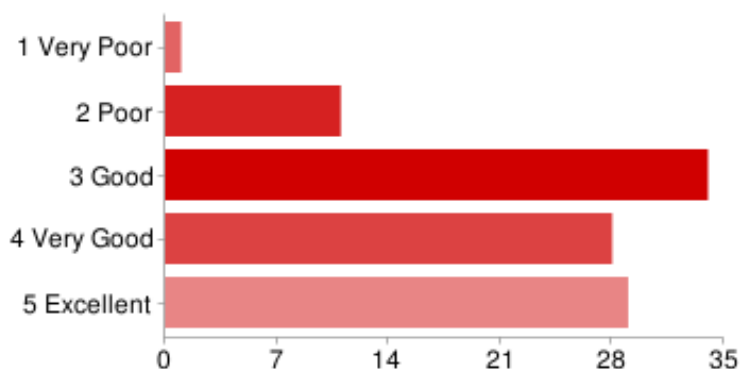


Figure 3. Overall satisfaction level about ATM service

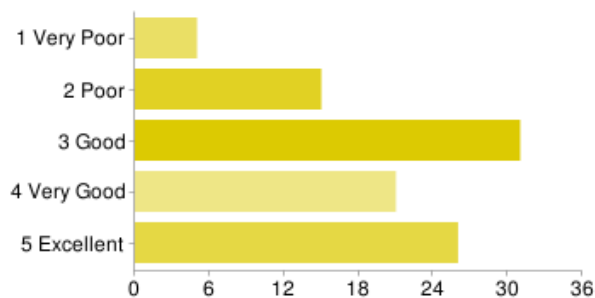


Figure 4. Overall satisfaction level about Net Banking service

Figure 3 and 4 respectively shows overall level of satisfaction of the customers about the ATM service, Net banking and call center services provided by the banks. Considering the frequency of feedback by the banks, large number of customers indicates that there is no feedback system, or if it is there, is taken randomly. Figure 5 shows the customers’ reply about frequency of feedback. Large number of banks, those who take the feedback, take on a random basis, which is an area of concern.

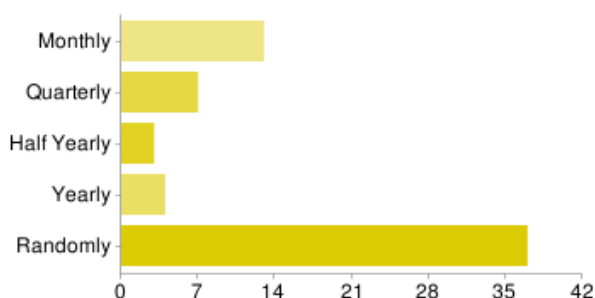


Figure 5. Frequency of feedback

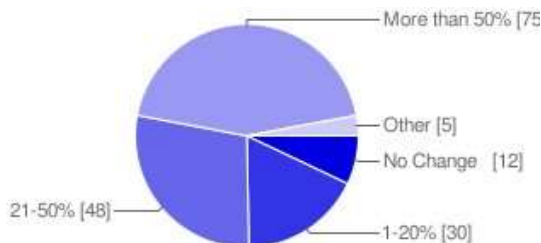


Figure 6. Saving in transaction time after introduction to ATM, Net banking

Important outcome of the study in figure 6 indicates that customers feel that there is approximately 50% of time saving after introduction in services like ATM, Call Center and Net banking. This clearly shows that there is huge amount of intangible benefit experienced by customer.

V. HYPOTHESES TESTING AND CONCLUSIONS

Observation a. When Correlation test is applied to test impact of use of ATM, Call center and net banking on overall satisfaction level of customers, Pearson coefficient is found to be for the entire data. This supports the hypothesis H1, hence hypothesis is proved. Further, when bank type wise analysis is done, it shows Pearson coefficient 0.250 for net banking, 0.222 for ATMs and 0.263 for public sector banks, where as for private and cooperative banks, it shows no significant relation. When profile of respondents was studied in details, it revealed that those having an account in private banks are on an average more educationally qualified than those having accounts in public sector and cooperative banks. This indicates that the class which is highly educated takes it for granted that private banks should provide better service than public sector banks for the obvious reasons of higher service charges applied and further, this class is equally conscious about the quality of service provided by private banks.

This proves hypothesis H2, which shows that customer satisfaction varies depending on the nature of bank (i.e. public, private and cooperative).

This further indicates that the level of computerization and the extent to which it is used in public sector, private sector and cooperative banks differs significantly.

Observation b. Regression analysis of the data shows adjusted R squared value =0.227 which indicates only 23% of level of prediction between overall customer satisfaction and IT use in a bank.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.227 ^a	.052	.042	.900

a. Predictors: (Constant), Bank type code

Limitations of the study – The current study is limited to Pune city, which is one of the fastest developing cities in India. The city is known as 'Educational hub' of India. Further, more geographically spread work can yield more accurate results. Also, the Customer Satisfaction Index can be developed and tracked for a longer period to observe the variations.

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