Integration of Personalized Service Delivery with Information Technology : Future of CRM in Indian Banking

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Abstract

This study aimed to critically review the state of customer relationship management (CRM) in Indian banks on the basis of secondary data, information available, and our own experiences both as customers and a banker [first author of the paper has an experience of 17 years in the Banking sector]. With the advent of professionally managed private sector banks in India in 1993, the focus of CRM has shifted from personal relationship to technology driven module based relationship management with minimal personal touch. Notwithstanding all the noise about implementation of ambitious CRM plans by Indian banks, they have not been able to impress customers because of cross selling overdrive at the cost of customer delight. There is an urgent need to integrate information technology enabled solutions using big data analytics with tailor made personalized relationship management for which an integrated CRM Model has been proposed in this paper.

Key words : **customer relationship management, CRM, CRM in Indian banking, Indian banks, big data analytics, integrated model of CRM**

JEL Classification : G200, G210, M300, M310

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India has a rich history of banking starting with the establishment of banks by industrial houses leading to nationalization of 14 private sector banks in 1969 followed by six more in 1980. The Government of India again allowed establishment of private sector banks in 1993 under its policy of economic reforms and liberalization, which got a further fillip by issuance of 11 licenses for Payments Banks and 10 licenses for Small Banks by Reserve Bank of India (RBI) in August - September, 2015. There are 149 Scheduled Commercial Banks with 1,30,698 branch offices having total assets/liabilities to the tune of ₹ 1,20,43200 crores as of March 2015 (Reserve Bank of India, 2016a). There were 1,97,327 automatic teller machines (ATMs), 13,63,476 point of sale (POS), 2,41,26,523 credit cards with 6,76,33518 monthly transactions, 65,83,78,788 debit cards with 79,87,03,414 monthly transactions as of February 2016 (Reserve Bank of India, 2016b). This gives an idea about the humongous data trail that bank customers are leaving with their routine transactions.

With the entry of big professionally managed private sector banks after 1993, there has been a paradigm shift in customer relationship management (CRM) by banks in India. The focus has shifted from personal relationships to technology driven module based relationship management to ensure continuity of same service levels irrespective of staff movement. With a wide range of retail banking products and cross selling of other financial services like insurance and mutual funds etc., CRM has assumed center stage for customer acquisition and retention by

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ensuring continuing high levels of customer satisfaction. Today, CRM has come to be regarded as a strategic mainstay for banks to create a competitive advantage by synergizing their attempts to deliver exactly what the customer wants. However, in most of the Indian banks, CRM is being primarily driven by information technology without much effort for personalized service delivery aiming at customer delight.

Theoretical Framework of CRM in Banks

Broadly, banks have been practicing three types of CRM:

(1) Operational CRM : CRM software packages are used to record and steadily organize data for inbound and outbound interactions with customers. It records the contact history and stores valuable customer information and customer relationship with the bank which can be retrieved by staff as and when needed. Operational CRM provides valuable support to the front line processes by automating communications and interaction with customers. The main benefits of operational CRM to banks are :

(i) Sales force automation,
(ii) Customer service and support,
(iii) Enterprise marketing automation.

(2) Analytical CRM : It helps in evaluating customer information to send marketing and customer service related messages to the customer at an appropriate time through a suitable medium. It involves the use of data analysis to extract information for effective customer relationship management. The main benefits of analytical CRM to banks are :

(i) Segmentation and targeting,
(ii) Optimizing marketing efforts as per customer lifetime value,
(iii) Development of customized new products matching with the specific preferences and priorities of customers,
(iv) Customer retention,
(v) Credit risk analysis,
(vi) Fraud detection.

(3) Collaborative CRM : It aims at developing the systems and processes facilitating customers to perform services on their own through a variety of communication and interactive channels. It brings people, processes, and data together by enabling flow of data and information appropriately to bank staff for enhanced informed customer service and support activities. It provides the means of information sharing to all concerned in a timely manner. The main benefits of collaborative CRM to banks are :

(i) Facilitating customer communication across a variety of channels,
(ii) Providing online services to reduce customer service costs,
(iii) Providing access to customer data while interacting with customers.

Thus, CRM can also be understood as a catalyst enabling transformation of banking from traditional 'transactional banking' to 'relationship banking' by use of technology.

Literature Review

A study of the research work available on the subject endorses the view that CRM is going to play an important role to drive customer acquisition and retention by increasing customer satisfaction and loyalty. However, the study also reveals that in spite of realization of the importance of CRM as a strategic tool to gain competitive advantage, Indian banks have not been able to harness the true potential of CRM because of an overdrive for cross selling at the cost of customer delight, which should be the ultimate goal of CRM. Review of existing literature brings out another area of concern which is over dependence on technology and neglect of human touch in modern day CRM processes and practices.

(1) Lackluster CRM Performance in Indian Banks : Though customer relationship management has become inevitable for the growth and profitability of banks in the present scenario marked by growing competition and technological advancement, it is still at a nascent stage in Indian banking, and a very small proportion of its potential has been utilized (Bhatnagar, 2012). Banks that are operating in India have floundered to galvanize their customers with their efforts at CRM. This decline in performance has happened in spite of technological developments and new processes in place. Some of the reasons behind the unfavorable responses for banks are - more focus on selling, technology, and call centers (Oogarah-Hanuman, Pudaruth, Kumar, & Anandkumar, 2011). Since the word customer is associated with CRM, many banks are under the misconception that they secure competitiveness by implementing CRM as a piece of software only (Ramkelawon, 2010). While the customers of Indian nationalized banks are not happy with the behavior of employees and infrastructure, the customers of private and foreign banks are not satisfied with high charges, difficulty in accessibility and communication (Singh & Arora, 2011).

(2) Importance of Integration of Technology with Human Factor in CRM : Customer relationship management is about actualizing the feel of amenity in this soaring technological environment (Padmaja, 2010). A significant positive relationship exists between both the knowledge and ability, and attitude of bank employees (Rootman, Tait, & Bosch, 2007). There is a need of more integrated avenue to human beings as end-users of a CRM system to ensure desired benefits from CRM implementation (Wikstrom & Isomaki, 2008). Technology, people, and customers are the three elements on which the success of CRM in banking lies in this fast-changing economic environment (Mittal & Kumra, 2001). A fusion of technical, human, and business proficiency is necessary to ensure the success of CRM programs (Coltman, 2007). The key variables such as human interaction, reliability, service facility, service fee, and ease of use, service delivery time, convenience, privacy, and security influence customer satisfaction levels (Mittal & Jain, 2009). Lucrative CRM implementation requires outright efforts for the advancement of the three segments, that is, attainment, enhancement, and service recovery. Getting in touch with customers periodically and recovery of services facilitates retention of customers (Deshmukh, 2012).

The above dominant findings from literature review are in consonance with the results of this study. However, the above studies have stopped at finding the missing human touch and intervention in the software-based CRM processes practised by most of the Indian banks, and they have not suggested as to how this shortcoming can be addressed. This paper aims at filling this gap by evolving a model of CRM to address the issues outlined with the help of informal inputs from a cross section of bank customers, seasoned bankers, and the insights developed by the first author as a banker for about two decades.

Use of Big Data Analytics for CRM by Indian Banks

The success of all the three types of CRM practiced by banks largely depends on the volume, quality, and

suitability of data, as well as the analytical tools at the disposal of the bank. Customers are now leaving a huge digital trail with their purchases, transactions, and social media interactions. The astronomical growth of data from 281 exabytes (301721452544 GB) in 2007 to 8000 exabytes (8589934592000.004 GB) in 2015 has further accentuated the role of information technology (IT) in CRM. Therefore, many opportunities exist to sift out important information not only about the general tastes and preferences of customers, but also about their specific latent needs for products and services. With the help of cross-references from multiple data sources, we can weave a cohesive story about the target customers for tailor-made customer relationship management. Though there has been a phenomenal increase in the volume of customer data that can be accessed by banks, Indian banks are still experimenting with analytics and effective use of the results of analysis of big data.

The following is the summary of CRM applications using big data reportedly implemented by some of the leading Indian banks :

(1) HDFC Bank- Using Analytics to Get a Holistic Picture of the Customer

- HDFC Bank was among the first few Indian banks to start the use of analytics in Indian banking in early 2000s when it put in place a data warehouse and initiated investing in technology that would aid it in synthesizing substantial troves of unstructured data captured by its information technology (IT) systems. After putting the data warehouse in place, HDFC Bank detected that there was a need to mesh the analytics engine with every facet of operations which enables bank staff to gain valuable insights in customer behavior that would help in designing of new products and services.

- Analytics engine has served as an important tool for tracking the financial habits of customers. For example, it can determine whether the customer has an active account or he/she is just having salary credited to his/her account. Is HDFC the vital bank account for this customer or just a salary account?

- The analytics tools also gives the bank insights into personal habits, allowing it to promote offers accordingly. With the help of these tools, the bank staff can easily find answers to questions like, "Can I put my retail assets into it? Does the customer have a two-wheeler already? Does he/she have an auto loan already? Does he/she have a personal loan already?" To be able to differentiate the customer and cross-sell relevant offers, analytics has been put into play as HDFC wants to become the one-stop shop for the customer. To get resolution to a question like 'the customer uses our debit card, but does he/she also use a credit card?' HDFC Bank decided to put an analytics engine on top of the data warehouse and brought in analytical tools like SAAS which stands for software as a service (SAAS, n.d.).

(2) ICICI Bank - Using Business Intelligence and Analytics to Scale Down Credit Losses

- ICICI Bank singled out debt collection as the pivotal process where a friendly approach could help in gratifying customers to a large extent. Adoption of an appropriate customer-approach channel for each case was an important step in the debt collection process. The bank management with the aspiration to revolutionalize debt collection as a tool to withhold customers decided to use technology.

- The business intelligence (BI) solution implemented in ICICI Bank includes components of SAS, Sybase, TRIAD, Posidex, Data Clean, and Blaze Advisor that factored in several criteria such as collector's efficiency, customer profile, risk behavior, and exposure (D' Souza, 2012).

- ICICI Bank's CRM data warehouse assimilates data from multiple sources and enables users to find out about various transactions of customers pertaining to savings accounts, credit cards, fixed deposits, etc. The warehouse also gives indications regarding channel usage.

↳ Analysts at ICICI Bank mentor product development and marketing campaigns through behavior explorer, whereby customer profile can be updated by using ad hoc queries. Needs of the customers are taken into account and then the products are created, enabling the bank to satisfy customers through better personalization and customization of services.

↳ The initial implementation of CRM allowed ICICI to analyze its customer database, which included information from eight separate operational systems - retail banking, bonds, fixed deposits, retail consumer loans, credit cards, custodial services, online share trading, and ATM.

(3) Axis Bank – Analytics for Customer Intelligence & Risk Management

↳ Axis Bank has used Earnix software to elevate loan origination effectiveness and improve customer allegiance. Combining state-of-the-art risk and quest modeling with real-time connectivity to systems which are the nucleus, the Earnix integrated customer analytics platform has enabled Axis Bank to optimize the alignment of products and prices to customer demand (Earnix, 2013).

↳ Axis Bank uses SAS to provide customer intelligence across the organization. The SAS tool also helps the bank to improve risk management throughout the organization by giving it early warning signals.

(4) ING Vysya Bank – Data Modelling and Neural Network Scoring Engine

↳ ING Vysya (now acquired by Kotak Mahindra Bank) felt the need for business intelligence when the bank started noticing how divergent end users attended meetings with inaccurate reports. They required a solution to help users generate rigorous and timely reports (Jansen, 2012).

↳ To follow the anti-money laundering guidelines around fraud analysis, the bank deployed a tool that could identify complex schemes/ transactions. The tool offered the advanced analytics of a nonpartisan network scoring engine with a customized scoring model. For example, if a customer structures the transactions regularly below a threshold, say, ₹ 50,000 to avoid quoting PAN details, the engine can search the entire database to detect similar patterns and throws up alerts.

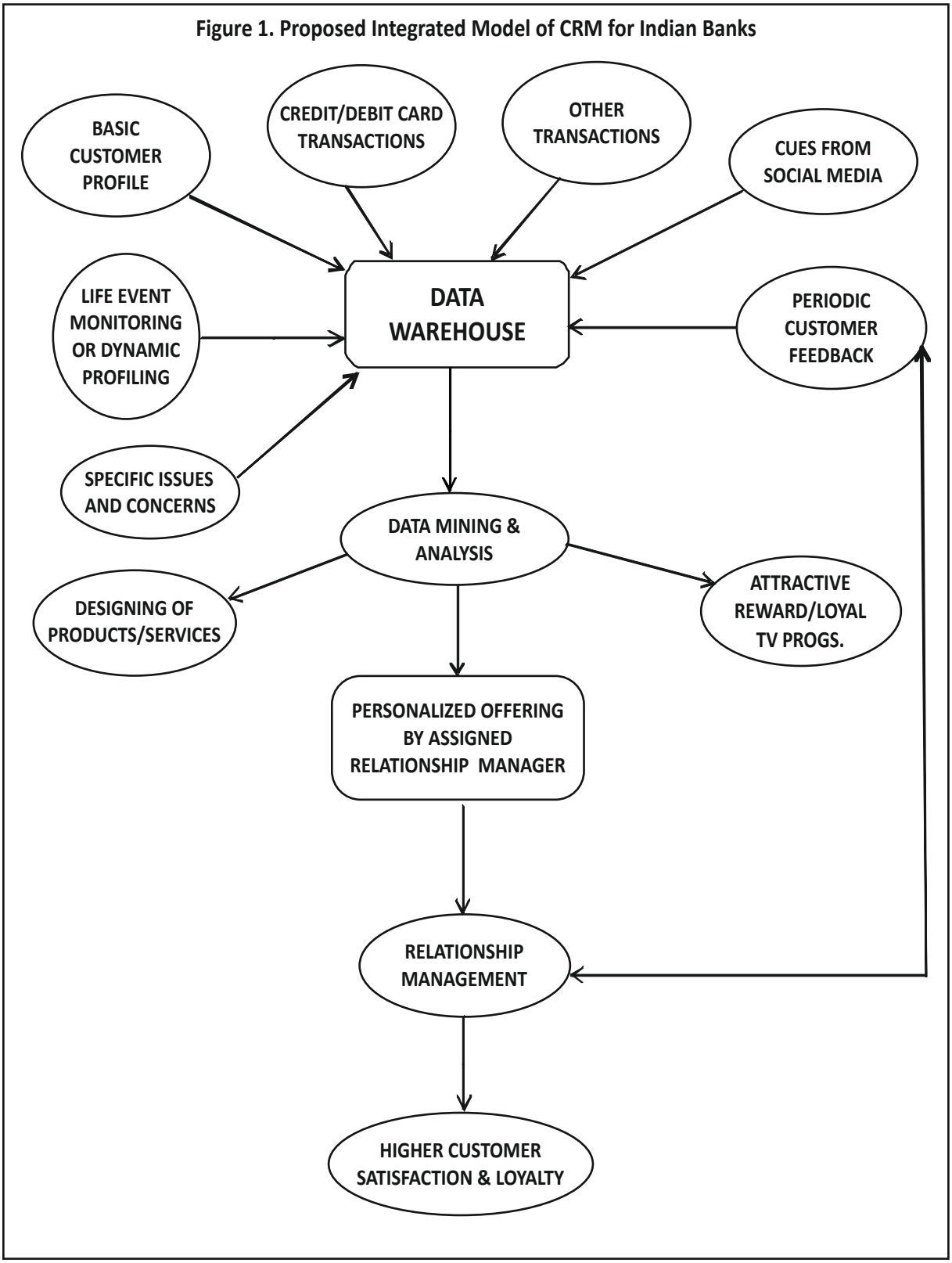
↳ The IT network correlates the characteristics of a customer's financial activity with the custom-model and records the patterns of behavior for each account holder. It then accredits a score reflecting the degree of peril for each transaction. The tool has a built-in 'learning' mechanism whereby the system learns and records genuine behavior or patterns of transactions.

Need for Integration of Personal Touch with Big Data Analytics for Effective CRM by Indian Banks

Notwithstanding the above information about ambitious data mining and analytical tools acquired by some of the leading Indian private sector banks, it has been observed that majority of the Indian banks are not fully exploiting the potential of the systems installed by them. The CRM practiced by most of the Indian banks is confined to prospecting for cross-selling various products and services, that too without the actual need identification of the specific customer. For example, routine identical calls to sell home loans, credit cards, insurance policies, and mutual funds are received by all customers.

Even if you are 65 years old and already own three flats, you are likely to be targeted for home loan in the same way as a customer of 35 years owning no property. A person who has refused a credit card may be approached

Figure 1. Proposed Integrated Model of CRM for Indian Banks



again for the same product. Such instances show that either banks are not making proper use of the data available in their systems or no personal care is being exercised to use the information available in the system or both.

In view of the above state of affairs, it is imperative that a suitable model for effective CRM is developed for Indian banks which integrates the advantages that can be derived from big data analytics with the personalized relationship management with customers. The CRM model depicted in the Figure 1 will ensure such integration to a great extent.

The process of relationship building with the customer starts when he/she opens an account with the bank. Most of the Indian banks take information and data to create a customer profile when a customer comes on board but seldom update it. It is suggested that banks should move on to dynamic customer profiling by periodically updating the customer profile for changes in customer circumstances that beckon a break from precedent behaviors. Graduations, marriages, buying a home, birth of a child, and retirements are examples of life events that signal when past buying behaviors, needs, and preferences may not hold good for future. Life event-driven marketing (EDM) can be a pragmatic tool in finding new opportunities to serve customers according to their changing needs.

In addition to updating the customer profile with life events, important traits of customers coming to the notice of the bank employees through interaction with customers must also form part of dynamic customer profiling to ensure long term customer satisfaction. For example, customer's reaction to bank's systems and processes, service delivery issues, and concerns should be incorporated in the profile to avoid recurrence of the same experience by the customer. I (first author of the paper) repeatedly faced the same issues while dealing with a leading Indian bank despite the bank accepting the mistake and apologizing for it each time, forcing me to close my account with the bank. Ideally, such issues and concerns must show as red flags on the customer's account page so that even a new bank executive dealing with the customer comes to know about it, and recurrence of the same issue can be avoided.

The use of big data should start from this point onwards. Data trails left behind by the customers through debit/credit cards and all other type of transactions must be picked up for the data bank. Banks are finding ways to tap into customers' social media accounts to pick up important details about customers, their friends, and followers who may be potential customers. Similarly, banks can get further data about the tastes, preferences, and other banks of their customers by collaborating with online shopping sites. Banks can mobilize information from their mobile applications and use location data from mobile devices to determine where to put new ATMs by identifying places customers normally visit. Last but not the least, periodic feedback from the customers must be fed in the databank. It is the general grouse of bank customers that the Indian banks use CRM mostly as a tool to push cross selling rather than knowing how customers feel about their services because they seldom take customer feedback and even when they take, it is not used effectively to improve upon problem areas. Effective customer experience management (CEM) requires 'closing the loop' with customers by getting their regular feedback. It will give banks the competence to sustain a dialogue, whereas typical customer feedback programs end the conversation or don't start it at all.

After data bank is made richer by the data drawn from sources mentioned above, intelligent data mining and analysis is required to decipher customer needs and expectations which banks should fulfill by designing and offering customized products/services and loyalty/reward programs. Here, the way products and reward programs are offered is as important as their designing which calls for a personalized one to one service by a well groomed relationship manager. Mass marketing techniques of telecalling and mailers are not likely to yield desired results with the well-heeled discerning customers who form target segment for these types of products and services. Again, the relationship managers should not only aim at just product pushing to achieve sales targets, but should go after increasing customer satisfaction and loyalty by taking regular feedback from customers and acting upon it.

High customer satisfaction index and not business volume must be the ultimate target of CRM, because happy

and satisfied customers will automatically contribute to business development through positive word of mouth and referrals which are the most effective promotion tools in the service industry. Thus, it is the need of the hour to adopt a CRM model in Indian banks which effectively integrates big data driven IT systems with personalized relationship building.

Research Implications, Limitations of the Study, and Scope for Further Research

Since this study proposes a model which integrates the features of software based CRM with personalized relationship management, it is imperative that the necessary changes are made in the systems and processes related with CRM in Indian banks. As suggested in the integrated model of CRM in Figure 1, the system for taking proactive periodic feedback about changes in customer circumstances, needs, taste, and preferences should be incorporated in the overall process of CRM to test the efficacy of the model.

As there exists a sizeable body of primary research on this topic, this study was conducted on the basis of the review of the existing primary research work, dominant public opinion gauged through informal inputs from a cross section of bank customers, seasoned bankers, and the insights developed by the first author as a banker. Thus, the only limitation of the study pertains to the use of secondary data and information. However, due care has been taken to evaluate the veracity of the secondary data and information used in the study.

This study has proposed an integrated model for CRM in Indian banks addressing the issues emerging out of the review of the existing research work and dominant public opinion. Although the model has been developed with the help of informal inputs from a cross section of bank customers and seasoned bankers, it needs to be implemented and tested. After implementation of the proposed model by the banks showing interest in it, for a period of at least six months, it will be worthwhile to conduct a study to take customer feedback on its efficacy for raising the level of customer satisfaction and loyalty. Based on the outcome of the study, suitable permanent changes may be incorporated in the model, if required.

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