

# IT Enable Customer Relationship Management in the Bank Sector

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**Abstract:** *Today, most organizations are using customer relationship management systems and strategies to gain a better understanding about their customer's needs and expectations. Used in association with data warehousing, data mining, call centers and other intelligence-based applications. The rapid change in information technologies resulted in a rapid and obligatory change in economy. During this change process the profile of the customers changed as well; nowadays the customers have easy access to the world markets and expect various products and services. This development introduced the concept of CRM: one of the essential components in today's marketing. The research is an investigation of the IT over CRM particularly in the banking sector of Bangladesh. Some Hypotheses about CRM in banks are purposed and a survey has been done for testing the validity of those hypotheses. The results of the case study were evaluated to develop a platform that will possibly be used by future researchers or bank administrators to rationalize their customer relationship management. Some suggestions about how to implement customer relationship management successfully in Banks were given before concluding the research based on the research result.*

**Keywords:** Information Technology, Customer Relationship Management (CRM), Banking

## 1. Introduction

Customer relationship management (CRM) is a model for managing a company's interactions with current and future customers. It involves using technology to organize, automate, and synchronize sales, marketing, customer service, and technical support. In other perspective Customer relationship management (CRM) is an information technology-driven strategy, companies use to get and keep a customer. For example, "if a marketing department runs an outbound campaign, all of the information about the customers and the program should be retained for the customer service representatives to answer any queries, and technical support to provide any field support. The idea is to have the same information available to all in the company so that every product or service need of the customer is met. CRM implies that everyone in the enterprise is focused on the customer."

CRM allows companies to gather and access information about customers' buying histories, preferences, complaints, and other data so they can better anticipate what customers will want. The goal is to instill greater customer loyalty.

Other benefits include:

- Faster response to customer inquiries
- Increased efficiency through automation
- Deeper understanding of customers
- Increased marketing and selling opportunities
- Identifying the most profitable customers
- Receiving customer feedback that leads to new and improved products or services
- Obtaining information that can be shared with business partners.

Nowadays the customers' demands and needs have become important in marketing policies. This approach, which was the result of the customers' becoming more conscious, was replaced before by the social marketing policies which prioritize the community over the individuals' interest. However, the competitive conditions in the globalizing world and rapid developments in the information technologies, have led to a new marketing policy. As a result of increased competition, the customer is always stimulated to consume with the help of the developed technology. The new customer profile having

several alternatives prefers the corporations which appreciate the customer and are trustworthy. At this point, customer relationship management provides the greatest help to the corporations which seek to find out the needs of the customer and plan strategies accordingly. In this context, customer relationship management (CRM) is a work strategy employed to increase the profitability and income of the corporation and the satisfaction of the customer to the maximum. Customer relationship is a process which includes pre and post sales transactions and help satisfying mutual demands. As a result of increased variety and quality under our current competitive conditions, the customers choose not what they are offered but what they really want. Therefore, in order to survive, corporations need a customer relationship management which provides them with loyal and satisfied customers.

## 2. Research Area

Today the companies inevitably need to adapt their general business strategies into customer focused strategies in order to survive in very competitive global market. This can be achieved by thoroughly understanding the customers' needs, improving those needs and presenting them back to the customers in a way that increases the overall customer satisfaction, which in turn increases business profitability.

Information technologies allow firms to segment their customers according to their consuming habits and profitability rates by extracting and analyzing their customer related data. The importance of information technologies reveals here. They provide firms a means to better understand their customer profile and define their business strategy accordingly, which, in turn, causes them to earn customer loyalty and possibly to have new customer channels.

## 3. Previous Works

Previously several attempts have been made to investigate the influence of IT on CRM. One of these attempts is a market research made by IBM in the bank sector in USA. According to this study, many banks fall short in customer loyalty efforts and most of their customers do not feel valued by their bank and are not willing to foster a deeper relationship with their financial institution. Moreover, in IBM's report, it is stated that "To achieve the goal of increasing customer advocacy, banks will need to invest in solutions such as more-robust text and speech analytics to understand how customers are communicating, not just what they are saying".

Another research explaining why CRM is very important for banks was done by SAS group.

From the previous two researches we can see that CRM will become more and more important in the following years. A different view saying that "CRM is not software; it is a business strategy" is explicitly mentioned in another research by SAS Institute. It states that "CRM technology

vendors have oversold the banking and financial industries with solutions. Unfortunately, these industries have quickly learned that effective CRM requires more than just a software application; it requires a business strategy. That business strategy should-

- Focus on customer equity assets
- Enable organizational structures to support a customer-centered business model (as well as a product-centered or function-centered model)
- Provide a mechanism to develop data that supports the customer-centered model
- Incorporate a technology infrastructure that optimizes customer relationships.

According to these researches, we can say that CRM will be an important factor in banking industry however the people using it should understand what really CRM is and how to use it.

## 4. The Purpose of the Research

The purpose of this research is to analyze the influence of IT on Customer Relationship Management (CRM) through a case study. We specifically aim to examine three things:

- CRM policies of the Bangladeshi banks
- How and in what level the banks are using the information technologies to implement their CRM policies.
- What consequences the integration of IT and CRM brings in terms of general organizational strategy particularly in the bank sector of Bangladesh.

By using the results of this study, it is aimed to prepare a platform, which might be used by future researchers or bank administrators, to improve customer relationship management in Bangladeshi bank sector through the use of information technologies.

## 5. Restrictions

20 administrative level bankers (i.e., Sales Manager, Marketing Manager, Human Resources Manager, IT Manager and Operations Manager) participated in our research study by answering questionnaire provided by us selected from twenty different banks located in Bangladesh. All the participating banks with their bankers did not want their information to be published in this document.

## 6. Research Methodology

The hypothetic-deductive model as the main scientific method used in this research. In this scientific method, "inquiry proceeds by formulating a hypothesis that is intended to explain an observed phenomenon. From the hypothesis a sufficient number of explicit predictions of further phenomena are deduced that should be observable as a consequence of the hypothesis. Observations that run contrary to those predicted are taken as a conclusive falsification of the hypothesis, while observations which are in agreement with those predicted are taken as corroborating the hypothesis. It is then supposedly possible to compare the explanatory value of competing hypotheses by looking to see how well they are sustained by their predictions." We will derive a number of hypothetical statements considering the following subjects and the possible consequences underlying them:

- The current and future situation of CRM systems.
- The relationship of banks with their customers.
- The reasons why the banks loose customers.
- The view of the bank sector about the CRM systems today and in near future.
- The activities of the banks today and their plans in near future.
- The criteria banks consider when they are buying CRM systems.
- The criteria banks use when they are selecting the best customers etc.

## 7. Sources

We gathered information from the following sources and to evaluate our findings by making data analysis to support our hypothetic-deductive research model.

**Primary Sources:** The outcome of questionnaires made with banks' administrative personnel.

**Secondary Sources:** The books, articles and news about CRM, IT and marketing. The data of the questionnaire were used in the Statistical Package for the Social Sciences (SPSS) computer program to test the hypotheses. By the help of frequency distribution and using a five-point Likert Scale, the tables and charts were created. Also, for determining the validity of the hypotheses proposed "Hypothesis testing" was used. In that testing „one sided and two sided t-tests were used.

## 8. Hypotheses of the Research

As it follows, the hypotheses about the research have been set forth. Before preparing our questionnaire, we had to prepare our hypotheses. To determine our hypothesis we thought about the most important things in CRM in banks.

First, since CRM is all about how to understand customers we came up with these questions:

- What do banks think about customers?
- How do they lose them?
- How do customers choose banks?
- How do banks choose customers?

Then, we wanted to see how banks see their systems and what are they thinking about the future.

- What do banks consider about buying CRM?
- What is the situation of the CRM systems for now and the future?

By specifying these questions, the hypotheses were created.

## 9. Customer Centricity Test

A questionnaire formulated determining whether your company needs CRM or not is provided. The questions are as the followings:

- Do you have to go to several departments to find out the entire scope of activities that are occurring within a given account?
- Does your sales organization have difficulty proactively managing customer service issues due to lack of information?
- Do the various departments in your organization have difficulty communicating and sharing information about customers on a daily basis?
- Are there delays in meeting customer requests due to inefficient account management?
- If you could be more pro-active in your responses and management of customer requests, do you think that would increase their loyalty to your business?

If you answered 'Yes' to any of these questions then your organization should consider implementing a CRM strategy. How can a CRM solution solve these problems? Simply put, by creating a framework whereby all account information from sales quotes to customer service issues to marketing promotions are stored in a single repository that can then be accessed by your employees.

## 10. Results

As we have 6 hypotheses groups from A to F. Here the raw results are shown. The hypotheses are tested according to the survey results and then the information whether the hypothesis is accepted or rejected is explained. For determining the validity of the hypotheses proposed "Hypothesis testing" was used. 20 banks have answered the questionnaire provided them. 19 of the

banks are private banks. Only 1 of them is owned by the government. In this 19 banks, 13 of them are with Bangladeshi capital and the remaining 06 are with foreign capital.

The hypotheses about the following:

- a. The Reasons of the Bank’s Customer Loss.
- b. Current and Future Importance of CRM for the Banks.
- c. Banks’ Views about Their Customer Related Policies.
- d. The views about the Status of the Banks in terms of CRM Related Concepts for Today and the near Future.
- e. The Efficiency Level of the Banking Activities of the Banks for Today and the Following three Years.
- f. The Criteria that Customer Consider for Purchasing Bank Services.

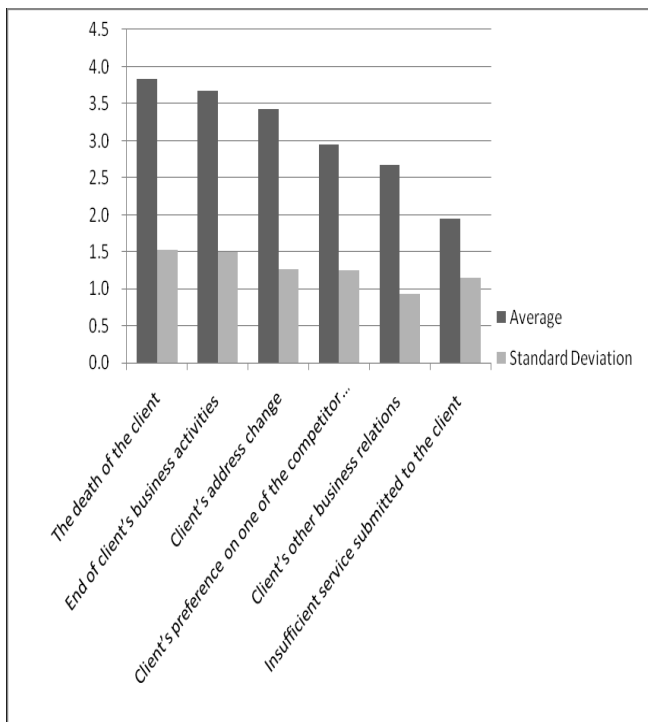


Figure 1: The Reasons of the Bank’s Customer Loss

Yes / No / NA /Total	Banks’ Investment in Customer Relationship Management	Percentage %
Yes	11	57.5 %
No	08	40.0 %
N/A	1	2.5 %
Total	20	100 %

Table 1: Banks’ Investment in Customer Relationship Management

## 11. Analysis of the Results

Analysis of our survey results relating to the following listed:

1. The Evaluation of Questions Regarding Reasons of the Banks’ Customer Loss.
2. Evaluation of Current and Future Importance of the CRM for the Banks.
3. Evaluation of the Questions Regarding the Banks’ Implementation Level of CRM.
4. Evaluation of the Questions Regarding the Status of the CRM that Banks Use Today.
5. Evaluation of the Questions Regarding the Current and Future Efficiency Level of the Banks Activities.
6. Evaluation of the Questions Regarding the Customers’ Criteria Used for Purchasing Bank Services.

## 12. Conclusions

Prioritizing the customer, customer relation management involves gathering information about the customer and planning corporation strategies according to them. Customer relationship management entails knowing the customer, understanding his/her needs, develop goods and services accordingly and share this information among all the branches of the corporation. Thus, all of the staff at the corporation would have the same perspective for a customer. Gathering customer information through interactions with the customer is the essence of CRM. In their interaction with the corporation, the customers provide valuable information to the corporation. Corporation should design CRM to gather and process this information. Data saved in the data warehouses should be accessible by all the staff when they need that information. Thus, when the customers call the corporation they will not have to reiterate the information about themselves. In development process of customer relationship management, first the customer choice should be made. In other words, the corporation should decide on the target customers. Then in order to gain those customers and encourage them to buy goods or services from the corporation, advertisement and marketing efforts should be put into practice. The next stage is to hold the customer which requires the corporation to maintain its relationship with the customers and keep holding him/her, because gaining new customers is much more costly than holding the current ones. In the last stage, deepening the customer relationship, the corporation tries to increase both the loyalty of the customer and his/her share in the sales. „Customer needs analysis” and „cross sale campaigns” are examples of these efforts. Under today’s competitive conditions, positive relationship between customers and corporations help corporations excel in the

market. Other corporations can follow technological improvements easily however technological advantages do not last for long. Long term good relationships between corporation and customers, however, cannot be created easily. Thus, it becomes obvious that in the future the best means of competition is customer relationship management. Determining and controlling the relationship between the corporations and the customers, customer relationship management helps in holding the old customers, gaining new customers and improving the relationship between the corporation and the customer. It also helps the corporations to hold the customers offering the most profitability. Customer relationship management also differentiates between the high and less profitable customers and guides the new investments in line with the demands and needs of the high profitable customers. Customer relationship management does not consist of only some technological developments. It is a process that is continuous, constantly improving and has consistent and repeatable results. In other words, CRM involves gathering and processing customer information in order to sell more goods and services in an efficient way. Due to recent global developments corporations are forced to restructure with the help of internet and communication technologies. Using new technologies helps in improving relationship with the customers. A corporation's CRM should be flexible to adapt to new vision and missions. CRM implementations should control regular data transfer between the customer and the corporation and help the corporation work efficiently. Developments in the information technology field are forcing all the sectors, particularly the banking sector, to undergo a structural renewal. Therefore, banks have to restructure themselves and look safely into the future so that they can develop professional management strategies in line with their interest and their profits. Several new applications have emerged due to the use of information technologies in banking sector. One of these applications is smart cards. Smart cards, with their memory and process capacity, help such applications as coding and storing the data. Furthermore smart cards integrated with automatic systems controlled by computers which are used in identifying people, describing their physical and behavioral features and offering mobile banking services with the help of cellular phones are the most trustworthy developments of today's banking sector. Another innovation brought by information technologies is online banking system. Thanks to ATMs telephone banking and internet banking, online banking system has reached an efficient level. Customers who had lost much time in crowded banks' branches have become able to save time and money by using online banking. Through internet banking banks have increased not only the number of their customers but also their accounts. Moreover, they now have an easy access to more information in a short time. Customers' interest in the online banking system resulted in the creation of call centers. Call centers are the interaction centers where sales, marketing and post sales services are carried out. With the help of the call centers, banks not only gain the trust and loyalty of their customers but also determine the customers' needs beforehand. Also, gaining new customers become much easier for them. Besides this, call centers provides cost

advantage to both banks and their customers. Customers want to have access to bank's services wherever they are. If the banks meet the needs of the customers, then they will be able to hold them in their companies. Banks should determine profitable customers, divide them into segments and use appropriate strategies so that they can have loyal and profitable customers. With the implementation of CRM, banks are now able to gather customer information through various channels and by using this information they can divide their customers into segments and offer special services for each customer. Today almost all banks in Bangladesh are offering similar services, so in order to become more competitive; they should have analytical customer information that will allow them to offer their customers special solutions according to their profitability level. This can be achieved by the effective use of information systems implementing CRM. Comparing with other world banks, Bangladeshi banks are at the beginning level of CRM. Although all the banks have information about customer relationship management, there are few banks implementing CRM thoroughly. This is because the managers do not believe in the benefits and necessity of CRM and do not think it is worth to make the costly technological investment. Another reason is that all the staff does not believe in CRM and does not want to implement it, and they do not have sufficient information and infrastructure in CRM. Banks should take into consideration the following points in order to implement CRM successfully;

- Understanding CRM thoroughly and believe in its benefits.
- Training bank personnel about CRM.
- Choosing the proper CRM implementation and preparing the infrastructure.
- Collecting the customers' ideas regarding the bank and the banks' services, and conducting necessary innovations.
- Offering innovative products with high additional value through a robust product development strategy.
- Re-evaluating the branch structure in line with the objectives and using distribution channels efficiently.
- Managing changes efficiently.
- Establishing management information system for risk management and measuring the performance efficiently.

### 13 Suggestions for future research

To fulfill the CRM the bank must have an integrated IT infrastructure. With the help of IT enable CRM the bank can prevent dissatisfaction and disloyalty of the customers by categorize them (customers) in some levels of each

bank branch should be identified and the tendency of the customers in selecting services or products should be analyzed through the use of integrated information systems. IT enabled CRM systems allows banks to offer products and services with cheaper costs in cross channels and the needs of the customers are met in a coordinated way so the customers do not want to give up using all the services together. In this context, the successful bank in the future will be those implementing CRM effectively. Nowadays, there is a high trend among organizations to adapt mobility in their organizational structure and it is very likely that the mobility side of the Customer Relationship Management will become very important in the near future. With mobile enabled CRM applications, banks will be able to interact with their customers regardless of their location, which in turn enable them to gather customer specific data more easily than ever. As a result, banks will become more customer-centric and develop better strategies and services to keep their customers loyal. Mobility will also empower the banks' rival position and enable them open new commercial channels to new customers. From this point of view, a future research in this topic can be to add mobility to the content of our study by preparing a number of new questions.

## References

- [1] Md. Shafiul Alam Chowdhury, Ayesha Jahan & Rokeya Akter Jui "Influence of IT on Customer Relationship Management (CRM): Study on the Bank Sector in Bangladesh" - Proceedings of the 7th Asian Business Research Conference, 21 – 22 December'2012, BIAM Foundation, Dhaka, Bangladesh; Organized by: World Business Institute-Australia & RAPI-Bangladesh; ISBN: 978-1-922069-16-0
- [2] Patton, Mickey, 2006, —CRM defining the Value of Customer Loyalty, C2 CRM Inc., retrieved on March 24, 2007
- [3] Rachel Roberts, The Impact of Economic Recession on Customer Loyalty to Banks, Copyright © Ivory Research Ltd. <http://www.ivoryresearch.com/Proposal-The-Impact-of-Economic-Recession-on-Customer-Loyalty-to-Banks.pdf>
- [4] Mandeep, Khera, 2003, "Customer Relationship Management – beyond the Buzz", IBM, retrieved on October 1, 2003
- [5] CRM White Paper, 2001, —Customer Relationship Management in Banking, Key Challenges Facing Bank Executives, SAS Institute Inc., retrieved on March 25, 2007
- [6] Violino, Bob, 1999, —Customer at the Core – Businesses Are Realizing that to Stay Competitive, They Have to Become More Responsive to Their Customers, Using IT to Keep Them Satisfied and Loyal, Information Week, retrieved October 1, 2003
- [7] CRM White Paper, 2004, —CRM: Making it Simple for Banking Industry, SAS Institute Inc, retrieved on March 25, 2007

- [8] CRM White Paper, 2005, —Customer Relationship Management: An Introduction, Daffodil Software Ltd., retrieved on March 24, 2007
- [9] Kotler, Philip; Armstrong, Gary; Saunders, John; Wong, Veronica (2001), Principles of Marketing, Third European Edition, Prentice Hall Europe
- [10] Porter, Michael E (1985) Competitive Advantage, the Free Press, New York.
- [11] Tapscott, Don (1996) the Digital Economy – Promise and Peril In the Age of Networked Intelligence, McGraw-Hill; 1st edition
- [12] Bhaduri, Prof. Dr. Saumitra, 2007, "CRM in banks — Serve thy customer, retrieved on March 24, 2007
- [13] Tapscott, Don; Ticoll, David; Lowy, Alex (2000) Digital Capital – Harnessing the Power of Business Webs, Harvard Business Schools, Boston MA

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