

A perception on customer relationship management as a tool of information technology

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Abstract

Information technology is a dominant area in today's world with its ever increasing importance in every aspect of life and is the backbone of the Indian economy. Information Technology brings out many other different technologies inherent in this field along with their impact and how it makes them easier to use, create, manage and exchange information.

Customer Relationship Management (CRM) is becoming an important factor in Indian Information Technology (IT) sector as each and every company in IT is realizing the significance of customer satisfaction to survive in the competitive world.

Keywords: Customer Relationship Management, Information Technology, Operational CRM, Analytical CRM and Collaborative CRM, CRM Framework, CRM success.

Introduction

From many decades, the important belief that existed in the operations of an organization is to acquire and keep the customers¹. New forms of competition and organisational changes have led the firms to be more stakeholder-centric than purely profit-centric. The use of information technology (IT) in marketing is well established and has gained much attention from researchers and marketing practitioners across the globe equally in all departments or functions in an organization. Database marketing concept existed since 1960s and we all have experienced its rapid progress allowing new methods of partnership between corporations and customers². In the business world, management recognizes that customers form the core set for a business and the success of a company depends on effectively managing relationships with them³.

Due to increase in demands from customers for value products and services this relationship underwent a paradigm shift from product-centric to customer-centric. There was continuous change in all areas with advancement in technology. Keeping in view of customers complex and differentiated needs and expectations, organizations pursued new IT solutions constantly to bring in necessary changes and developments with more precision and ease. With this necessity and requirement, CRM was introduced in area of marketing and it has an increasing role in today's world⁴ especially with assistance from IT Industry. Customer relationship management is based on customer's data and

is facilitated by usage of IT.

In fact, CRM is a modern and developed tool for data mining of customer's data which is supported by using of various communication points in system and create comprehensive point of view from customers. CRM is an example of relationship marketing that aims to retain customers, build lasting relationships and maximize customer value for the company⁵. Customer management itself is not a new concept as its techniques were in usage since mid-90s. With advancement in technology field, IT is being used in CRM to track multiple activities of customers distinguishing CRM from earlier approaches to customer management⁶.

Developments and growth in ICT especially in the 1990s have helped large businesses to recreate the personal relationship once enjoyed only by small businesses with the help of IT solutions. Organizations took help from IT in automating the sales process which initiated the current trend that further expanded into automation of services and marketing as part of comprehensive CRM solutions. CRM vendors included Siebel Systems, SAP, Oracle, Peoplesoft, Amdocs, Pivotal, Convergys, Vantive and Clarify. Enterprises Resource Planning (ERP) majors like Microsoft, SAP, Oracle and Peoplesoft have entered the CRM market to tap the emerging opportunities. The CRM market grew by 12.5 percent in 2012.

The table lists the top vendors in USA in CRM during the period of 2006–2008 and 2012–2014 (figures in millions of US dollars) published in Gartner studies. In India almost all major IT companies have started their own CRM software in order to be compatible with their other applications.

In IT terms, CRM means an enterprise wide integration of technologies working together such as Data warehouse, Website, Intranet or Extranet, Phone Support system, Accounting, Sales, Marketing and Production. CRM principally revolves around marketing and begins with a deep analysis of consumer behaviour¹². It uses IT to gather data, which can then be used to develop information required to create a more personal interaction with customer. In long term, it produces a method of continuous analysis and refinement in order to enhance customer's life time value with the firm⁸. Both (marketing and IT) need to work together with high level of coordination to produce a seamless process of interaction. CRM is purely customer-centric and helps organization from operational, analytical and collaborative points with improved relationship with all stakeholders.

Vendor/ Merchant	2014 Revenue	2014 Share (%)	2013 Revenue	2013 Share (%)	2012 Revenue	2012 Share (%)	2008 Revenue	2008 Share (%)	2007 Revenue	2007 Share (%)	2006 Revenue	2006 Share (%)
Salesforce	4,250.4	18.4	3,292	16.1	2,525.6	14.0	965	10.6	676.5	8.3	451.7	6.9
SAP	2,795.1	12.1	2,622	12.8	2,327.1	12.9	2,055	22.5	2,050.8	25.3	1,681.7	25.6
Oracle	2,102.1	9.1	2,097	10.2	2,015.2	11.1	1,475	16.1	1,319.8	16.3	1,016.8	15.5
Microsoft Dynamics CRM	1,432.2	6.2	1,392	6.8	1,135.3	6.3	581	6.4	332.1	4.1	176.1	2.7
Others	12,520.2	54.2	11,076	54.1	10,086.8	55.7	3,620	39.6	3,289.1	40.6	2,881.6	43.8
Total	23,100	100	20,476	100	18,090	100	9,147	100	7,674	100	6,214	100

Technological advancements in the recent times have enabled business organizations to automate their processes such as – Front office, Sales, Inventory management, IT systems and Financial Information. This has resulted in greater profits through reduction in costs, cycle time and workforce. CRM has been described and conceptualized in several ways as a process, strategy, philosophy and a capacity⁹. CRM is considered to unite the potential of relationship marketing strategies and information technology to create profitable long term relationships with customers and other key stakeholders which requires a cross functional integration of process, people, operations and marketing capabilities¹⁰.

Growth of CRM with IT Assistance

Customer Relationship Management (CRM) is a concept that has its roots in the technology of sales automation and calls centre operations which have been around since the mid-1990s. During that time it was felt that merging of customer data which is acquired from sales along with call centre interactions would result in robust customer data. This concept reverberated in user/customer centric organisations and soon mergers and acquisitions gave rise to a host of software vendors, all claiming to have an integrated set of capabilities that became known as CRM. Early relationship marketing aimed to obtain information about the customers' preferences, information that was stored in databases using one on one interaction. This strategy of one-to-one relations evolved through constant and rigorous painstaking and time consuming interactions.

Moreover, processing this data through personalization called in for an application that could make this entire process handle and manipulate easily. Thus, in order to secure and manage these one-to-one relations and to create a profitable and long-term relationship with the customers, CRM was developed with help of IT solutions as a seamless application.

On a parallel track, the internet-based tools such as e-

commerce, internet products competed outside of the CRM sphere and were referred to as “e-business”. When the concepts of CRM and e-business blended together, E-CRM is evolved and now, with advancement in wireless technology M-CRM gained ground. Similarly, ERP vendors realised that the 360-degree view of the customer had to include transaction data and thus develop an integrated package with CRM capabilities. Thus, from a technology perspective, CRM consists of a set of applications that address the needs of customer-facing functions that in turn feed a common database that is supported by business analysis tools, making it a more collaborative application.

CRM is a combination of people, processes and technology that seeks to understand a company's customers and applies those qualities in specific marketing activities. The main objective of CRM is to translate the customer information into customized products and services that meet the changing needs of customers in order to gain their loyalty. Customer needs and expectations have to be considered by all employees on top priority in an organization and identify their needs and expectations enhancing customer expectation levels which is possible only through effective and proper relationship with customers. Today, technology provides businesses with systems that can help companies track customers' interactions with the firms and allow the firms' employees to quickly retrieve all information about the customers.

CRM is a old and commercial philosophy that has born again by development and progress in information technology. The structuring of the business system in extremely complex digital environment requires careful planning, modelling and implementation of customer-oriented approach. The adoption of a customer oriented strategy is referred to as Customer Relationship Management (CRM)¹¹.

Reasons for the increased interest in the use of CRM

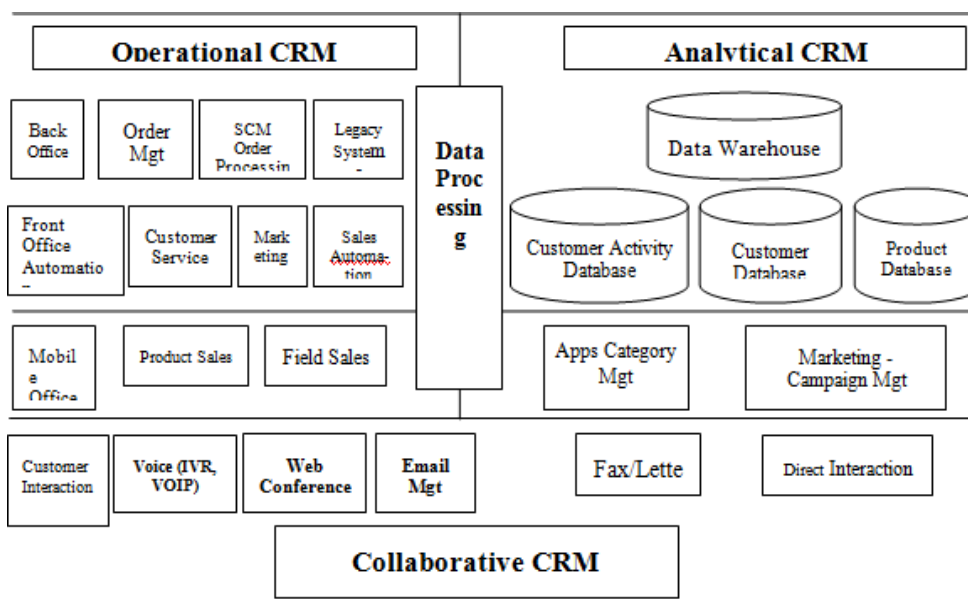
solutions are: technological advances, greater alignment with the customers and their choices for better information management and greater market competitiveness and sustainability. CRM solutions enable organizations to achieve positive effects such as increased sales leading to greater profits, better competitive advantage in the market, increasing customer loyalty and satisfaction, improving the performance and the quality of customer relationships, acquiring new customers, encouraging existing customers to purchase, maintain good relations and in increasing better image building exercises of an organization.

In short, CRM can holistically be viewed as Analytical, Operational and Collaborative.

Operational CRM facilitates and streamlines communication with customers and connects to customer touch points. General areas of Operational CRM are (1) Sales Force Automation (2) Customer Service and Support (3) Enterprise Marketing Automation.

Sales Force Automation involves the whole sales process which comprises of lead generation, lead qualification, needs identification, specifications and Proposal development, objections handling and closing of a sale. Customer Service and Support involves automation and coordination of all the service operations and customer support processes which include service requests, product returns, customer complaints and enquiries which are provided through contact or call centres, web portal, or face-to-face interaction even from a remote location in the field.

Enterprise Marketing Automation involves application of technology to marketing processes for provision of information pertaining to industry trends, macro-environmental factors and competitors. This facilitates appropriate engagement and control of campaign management, event-based marketing, cluster customer segmentation, individual customer segmentation, thereby increasing marketing efficiency.



Source: Shahnam¹⁵

Analytical CRM focuses on blending the customer data collected from Operational CRM with data from gathered from external sources in order to ascertain key customers and their feedback to boost the organizational relationship with them. Applications of Analytical CRM can be seen in many areas such as – (1) Financial Forecasting, (2) Programme Evaluation, (3) Price Optimization, (4) Customer Satisfaction Evaluation, (5) Customer Satisfaction Growth, (6) Product Development (7) Fraud Detection, (8) Risk Management, (9) Contact Optimization and (10) Sales Coverage Optimization.

Collaborative CRM focuses on exploiting interaction with customers through customer touch points for enhancing customer self-service. Application of this CRM can be seen in (1) Online services for enhancing customer convenience thereby facilitating cost reduction for the company. (2)

Effective communication through other channels including automated phone, email and internet for easy accessibility and comfort. (3) Profiling of customer information during customer interaction either through phone or through web chats through web personalization, etc.

Despite the positive effects of CRM solutions, some researchers warn that use of CRM solutions can also have negative effects on the operations of organization. The most common causes of the negative effects are in adequate measurement systems, low support and involvement of management, lack of understanding of the business benefits of CRM solutions, low quality and range of data, exceeding the planned cost and lack of skills in setting up and using CRM solutions¹².

Many researchers also point to the lack of understanding of

CRM solutions, as many users treat it as a technological tool, while forgetting the strategic aspect that goes beyond information technology¹³. Despite the fact that CRM was very promising in the mid 90's, there have been a number of errors that have led to concerns about its use. Most of the problems in the application of CRM solutions are not technical, but organizational and include organizational changes and disturbances, different views of customer data and changes in business processes, so it is necessary to more fully devote time to examining organizational factors^{14, 15} to juice out the essence of CRM in its entirety.

New Technologies in Support of CRM

IT advancements have changed the face of marketing and business environment. One of the New CRM application software which is related to real value of electronic business is E-CRM and M-CRM. E-CRM not only helps companies to improve the effectiveness of their interaction with customers but also make the interaction intimate through customization. E-CRM basically works with Internet in which every device a person wants to use such as – mobile, laptop, notepad, tab etc. Recently, mobile phone usage has increased due to its convenience in carrying wherever a person moves and its portability. Hence M-CRM is considered as a tool which empowers CRM with utilizing advanced wireless communication tools for customer and for companies with real-time contact with other systems and networks. This new technology can even allow call centres to contact their customers more frequently for fewer services and improve the relationship between the companies and their customer¹⁶.

Outsourcing CRM is yet another new trend gaining ground. Sales force leads the pack in this area. Despite initial hesitation in this area, firms now realize that it is a good bet. The lure in this area is the lower costs involved, contributing to overall profitability.

Cloud computing is a relatively new term referring to scalable, virtualized computing resources available on the Internet. There is now a growing demand for CRM cloud computing solutions and more vendors are jumping to satisfy this demand. Initially, it was a rent-versus-own argument. There are pros and cons to both approaches, but when it comes to rescuing small businesses from a recession-made dry spell, the cloud is almost always the rainmaker's choice — and the cheaper price tag is not the top reason. "An often-missed aspect of the cloud is that it provides more than just elastic infrastructure with a shared-cost model," said Miko Matsumura, vice president and chief strategist at Software AG. "Advances in social CRM and social BPM are leveraging the network in ways that impact the top line as well as the bottom line."

Key Drivers of CRM

Effective CRM solution is used not only for acquiring, analyzing and sharing knowledge with customers for the quick and timely service to the customer but also as an

integrated view of customer interactions to reveal the hidden and important information required for improving the relationship with the customers¹⁷. For the effective use of integrated IT solutions, a number of internal and external factors are to be considered as a base for the process and technological orientation in an organization. Critical factors of information solutions spread over number of areas are to be met for successful implementation of CRM solutions.

Researchers identify the critical factors of CRM solutions from the processes, technology and human resource view points. The literature review reveals that at the organizational level the critical factor that is viewed as top most is the orientation about customers¹⁸ as it involves various facets of orientation in technological, customer, competition, internal/cost, innovation, entrepreneurial, quality and productivity¹⁹. Strategic orientations are the guiding principles that influence a firm's strategy-making activities that get reflected in strategic directions implemented for superior performance²⁰. Also, some researchers analysed the performance of CRM solutions and the impact of organizational factors on it and found that organizational factors such as management, structures and employees have a major impact on performance of CRM solutions²¹.

CRM has been invented because customers differ in their preferences, perceptions and purchasing habits. A customer centric firm is capable of treating every customer individually and uniquely, depending on the customer's preference. A one-to-one marketing paradigm has emerged which suggests that organizations will be more successful if, they concentrate on obtaining and maintaining a share of each customer rather than a share of entire market.

Studies across a number of industries have revealed that the cost of retaining an existing customer is only about 10% of the cost of acquiring a new customer, so customer retention makes powerful, economic sense. Not all customers have the same value. A small percentage of customers can generate all the profit of a retail outlet. Retention and development of these profitable and marginal customers is the critical success factor in information technology sector.

CRM Framework

Technological advancements in the recent times have enabled business organizations to automate their processes in all of its departments/functions for easy and stable handling. This has resulted in greater profits through cost reduction in cycle time and workforce. CRM technologies enable an organization to present a single point of contact to its customers. CRM is a broad term that encompasses many strategies, processes and technologies all working in tandem to get closer to the customer. In order to have healthy relationship with its customers the company needs to monitor its customer's behaviors in each transaction and provide them what they want in the way they want.

Bahrami et al¹ discussed the following is the proposed CRM framework which is apt even for today at the basic level of CRM. This model basically gives a heads up of various inputs from a customer either individually or through a call centre. The main 3 processes are dealt in data processing of the customer and the typical outcome of this entire process if handled well with strict SOP's (Standard operating procedures) and control measures in place.

Call centre helps in automating the operations of inbound and outbound calls generated between company and its customers as a main hub of all such operations of a company. The solutions brought out in here, integrate the voice switch of automated telephone systems with other agents host software allowing for automatic call routing to agents, auto display of customer data while on call, predictive dialing, self-service Interactive Voice Response (IVR) systems etc. These systems are useful in high volume segments like telecom, banking, financial services and hospitality.

Today, with advent of latest technology and infrastructure, more innovative channels of interacting with customers are such as global telephone based call centres and the Internet. Companies are now focusing to offer solutions that leverage the calls through Internet in building comprehensive CRM systems allowing them to handle customer interactions in all forms with cost effective measures.

CRM Success

To have a successful CRM implementation, management must make sure that enough research has gone into its implementation along with its own capability of adaptation of new application along the lines of best practices. The following are the recommended key steps to a successful CRM strategy³:

- **Strategic context:** The organization should understand how CRM fits into the context of the company's overall business strategy.
- **Capabilities assessment:** The assessment is to be done to confirm the company's current CRM capabilities.
- **Business case development:** The organization needs a good reason to implement CRM other than new technology fever.
- **Implementation plan creation:** Create and execute a plan, which clearly defines how to achieve the goal and execute it.

The issues and challenges of implementing CRM can be summarised as follows:

In order to achieve high productivity, companies seek to improve the efficiency of their operations using IT continuously. Managers use information systems and technologies to achieve higher levels of efficiency and productivity especially when coupled with changes in business practice management⁶. Information systems and technologies are major enabling tools that firms use to create new products and services as well as developing new business models. A business model describes how a

company produces, delivers and sells a product or service to create wealth¹⁸.

Firms make use of information systems and technologies to achieve customer intimacy and to keep track of their customers' preferences. Business firms invest heavily in information systems and technologies because they are necessities of doing business and sometimes these necessities are driven by industry level changes⁹.

Despite the benefits attached to use of CRM, there are challenges such as is insufficient resources especially when funds are less, budgets strained¹¹; lack of qualified technical staff, professional training¹⁰; need continuous maintenance, information updating and system upgrading, costly and difficult to integrate with other management information systems⁴.

Following are the challenges usually faced by companies in implementing CRM system:

- CRM systems are so complex which needs experienced people to operate it well
- Integrating with other management information systems is difficult.
- Organization structural barriers effect the efficient operation of CRM systems
- Chances of CRM failures are possible mainly due to costs and expertise of using it
- Continuous maintenance, information updation and system upgrading necessary
- Rapid rate of technological change and keeping abreast with it is greatest challenge
- Lack of goodwill from senior management and lack of vision of the organization.

Conclusion

Today, information technology- conscious society has increasing appetite knowledge and skills others because of which the service industries are growing. Companies no longer regard marketing, service and sales as separate entities. Instead they are more concerned with treating them with a holistic approach. Organizations that do not implement CRM systems in support of relationship marketing strategies are at risk of being seriously disadvantaged. Customers are beginning to expect the added value delivered through tailoring products or services to individual customers or micro segments and are demanding greater participation in CRM implementation.

Customer Relationship Management (CRM) is about building collaborative and mutually satisfying relationships with customers. It is a business philosophy that helps today's companies increase revenue, reduce costs, build and retain a loyal customer base and find and acquire new profitable customers. From the above discussions it is clear that technology has been used effectively to enhance the utility and application of CRM. The need is to adapt ever changing technology to meet newer challenges before CRM. It is

dynamic process and right mind-set of managers is the key for CRM success.

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