

## **TECHNOLOGICAL DEVELOPMENT IN E CRM**

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### **ABSTRACT**

CRM or customer Relationship Management can be defined as an amalgam of strategies, processes, people and technologies used by companies to successfully attract and retain customers for maximum corporate growth and profit. CRM initiatives are designed with the goal of meeting customer expectations and needs in order to achieve maximum customer lifetime value and return to the enterprise. The use of customer relationship management products, CRM software and CRM solutions enhances the effective implementation of CRM in an organization.

**E-CRM** is not just a customer service, self-service, Web application, sales force automation tool or the analysis of consumer buying behavior on the Internet. E-CRM is a combination of all these initiatives working together to enable an organization to more effectively respond to its customers' needs and to market to them on a one-to-one basis.

### **Process**

One of the most important things to do before moving processes to the web is to really understand what you are trying to get done. Do not just automate what you have got. Technology can do some things better than humans can, but there are some other things it cannot do well at all. We need to evaluate our processes from the customer's viewpoint (how it will look to them) before we put the process online.

Amazon.com is perhaps the poster child for excellent online processes that integrate well into the back office logistical infrastructure of the company so that the overall experience for the customer is extremely positive. It is interesting to notice that Amazon.com has done such a great job of building easy-to-use and reliable online services that they have created a core of extremely loyal customers for themselves. These customers entrust all kinds of personal information to Amazon, from credit card information to family member birthdays, and trust that Amazon will do the right things with their information. This allows Amazon to provide many special services, like a personalized web experience targeted to the customer's taste, birthday gift reminders, and instant checkout. Of course, Amazon also allows for those who do not want to share their credit

card information- they just have to go through the tedious process of reentering all those numbers each time they make a purchase.

### **Technology**

For e-CRM, technology plays both the operational role and the role normally played by a human being. This is not necessarily so surprising. Research suggests that people actually treat their computers as if they were social beings. Stanford University professors Byron Reeves and Clifford Nass have completed more than 30 studies in the area of human responds to technology. Their research shows that people react to computers, televisions, and other communications media the same way they react socially with humans. Basedon their research results, they have defined the media equation: "Media equals real life" (Reeves and Nass, 1996).

### **Basic Concepts of eCRM**

E CRM has often been wrongly thought of as internet based CRM. Actually, e CRM has a broader scope and focuses on the symbolic relationship of CRM strategy and the used of electronics for facilitation of the same. Rather than thinking of it only in terms of the internet it would be more proper to think of e CRM as a facilitator of e-business wherein the internet does play a major role. Bakos (1997) points out that business have increasingly taken advantage of the power of the internet to build relationships with customers in the electronic marketplace. Chen and Chen (2004) refer to e CRM as technology facilitated interfaces with customers in a broad e-business context which goes beyond the web. They also mention that e CRM gives markets the power to practice one-to-one customer relationships and undertake mass customization marketing is due to the value that can be generated and delivered to customers. Bradshaw and Brash (2001) have pointed out that with the use of internet technology companies have become more efficient in managing relationships.

### **Benefits of E CRM**

#### **Understanding Customer Behaviour**

E CRM makes use of sophisticated information systems that enable easy collation and analysis of data. The systems help to capture transactions in real time and undertake credible analysis. Interpretation of customer data helps in understanding customer behaviour. This is possible through e CRM since all transactions are easily captured and collated into relevant databases. Various indicators regarding customer behaviour can be readily accessed. For example: the frequency of purchases, value of purchases, product affinities, etc.

### **Personalization**

The e CRM system would be capable of customer recognition and accordingly offer personalization. Once a customer logs into the system (using the website, or the interactive voice response system, or kiosks such as ATM machines), the customer's unique needs that have been stored are accessed and offered to the customer. Also, various details required for order placement (such as delivery address, credit card details, etc.) can also be pre-filled and the customer given the option of making changes if necessary.

### **Cheaper and Faster Transactions**

The use of automated processes helps in reducing the role of service personnel in the transactions, Also, customers using self-service enabled co-creation of value and they lead to reduction in costs. The ATMs installed by banks are an example in this regard. Companies have also integrated the supply chains seamlessly with their production and delivery systems using technology-this also helps in reduction of time and costs. The customer would regard lesser time and costs as added value and therefore, the e CRM is beneficial to enable greater customer satisfaction.

### **Global Reach**

E CRM enables companies to reach out to customers in any part of the world that is connected to the internet. Therefore, with proper logistics support systems in place, the company can easily cater to clients around the world using eCRM systems. This has enabled amazon.com to become a successful retailer within a few years. Table 2.1 gives a list of the benefits offered by eCRM.

#### **Table 2.1 e CRM Benefits**

- More geographical coverage at lesser cost
- Lesser expenditure for customer service since customers co-create value

### **Steps in e CRM**

Companies need to follow certain steps while formulating the e CRM strategy. These should include:

### **Methodology for the e-Business Initiative**

The practice of e CRM would entail e-Business initiatives. The methodology for conducting the

business needs to be decided with careful consideration. According to Harrison-Walker and Neeley (2004), the firm's strategic objectives should be to decide: at what point should the website be used? There are various stages such as: attracting customers, helping customers prior to purchase or make the purchase, coordinating order fulfillment and delivery, etc. The focus of the company with regard to the e-Business should be very clear- what role should the website play in the entire process? The extent of the relationship desired with the customer should also be decided as pointed out by Dorsch and Carlson (1996)

### **Processes**

The processes for the eCRM system to function should be carefully planned taking into account the habits and attitudes of the customers and employees. Green and Hughes (1986), Lee et al. (1995), and McKeen et al. (1994) have pointed out that user participation before and after the implementation of the systems would help in facilitating the acceptance and utilization of the systems. The customers who are techsavvies should also be taken into account before planning for e CRM systems. Also, the potential pitfalls should be considered and avoided. For example, many customers may be wary of making online purchases using credit or debit cards. The company should not just assure customers about their 'secure site' but also offer viable alternatives that the customers would find 'safe'. The processes must be made fool-proof and tested with various parameters that would ensure dependability. Checks and measures should be put in place to ensure that in the event of failure of a process, the concerned authority is immediately alerted and remedial measures can be undertaken. Most importantly, the eCRM initiative would require the company to develop new partnerships with new entities that would help to offer significant components in the value chain.

### **Partnerships**

For the e CRM initiative to succeed, the company needs to forge alliances with several partners to ensure that adequate value is delivered to the customer. These include the following:

***Content Management:*** The e CRM systems would require content for all the interfaces with customers- these should be created keeping in mind the education level of the typical customer. It may necessitate the use of content to be developed in multiple languages. For example, in India, apart from English and Hindi, content should be created in various vernacular languages to ensure that the customers familiar with vernacular are able to transact easily. Considering the criticality of the content factor, many companies prefer to outsource the task to specialized content development agencies.

***Logistics Service Providers:*** To enable the company to operate using a website or remote access

(without retail presence in most cities), partnerships need to be forged with logistics service providers to ensure timely delivery at reasonable cost. The service providers should be dependable and take responsibility for the shipped packages since the loss of a single package can result in the company being denied of the particular customer's lifetime value.

### **Supply Chain Integration**

For the e CRM to be successful, the entire operations should function with clockwork precision. All materials should be available at the right place and at the right time. The flow of goods (starting with the basic raw materials) should be effected to the point where inventory carrying is minimum and yet ensuring that no process is affected due to lack of availability of materials. For example, Dell created a very effective supply chain to ensure that the inventory was low enough to shave off costs and high enough to ensure continuous production. Most importantly, the supply chain needs to be seamlessly integrated with the eCRM systems to ensure that the customer demand is cascaded down the line to the supply chain and the vendors are aware of the material requirements in real time.

### **Evaluating the Performance of the e CRM System**

The performance of the eCRM initiative should be measured against the objectives that had been decided. Various methods should be created to ensure regular checks and measures that would provide indicators with regard to the performance of the eCRM system. These could be with regard to: the effectiveness with which customers are being served, customer satisfaction level, time taken by the system to handle customers, etc. Depending on the industry and the customer profile, the criticality of the various factors would vary and the company should decide which factors to consider for measuring the performance of the eCRM system. For example, a web portal that sells clothes and books should check the performance based on the following criteria:

1. Access to the range of merchandise
2. Easy availability of desired item (s)
3. Availability of help for choosing merchandise or other queries
4. Ordering procedure-time, complexity, etc.
5. Shipping time and costs

### **Success Factors in e CRM**

Succeeding with e CRM would require proper management of the factors that decide the fate of the eCRM initiative. These include:

### **Proper Facilitation of Customer Requirements**

Customers interacting with the eCRM system are bound to find things done differently from the manner they had been done using traditional methods. Therefore, the facilitation should be done properly from the customer's point of view. For example, banks in India have traditionally offered 'pass books' to their customers to maintain the details of their accounts. These needed to be updated by the bank staff. But the eCRM method enabled banks to do away with these pass books and offer internet based banking where customers could see their transactions electronically. Customers needed to get used to the new system and accept the change though it meant a different method of interaction with the bank (lesser trips to the retail counters).

### **Effectiveness of the IT Systems**

The manner in which the IT systems work would determine the success of the eCRM initiative. This means that the website should be able to handle the traffic without putting customers on hold, the interactive voice response systems and call centres should be able to serve customers within reasonable time, etc. The downtime due to malfunctioning of IT systems would affect the fate of the eCRM initiative. Websites that get very heavy traffic have resorted to using techniques like 'mirroring' to ensure that customers were not lost due to the slow response of the site. The partners providing the support services (such as internet connectivity or network support, etc.) should provide the services they have promised. In case there is variance on a day-to-day basis in the level of service offered by the partners (such as the bandwidth enjoyed by the company for e-business transactions) then the performance of the eCRM system is bound to suffer.

### **Support of the Top Management**

The e CRM initiative would involve the trying out of a new business model and therefore some degree of experimentation is bound to happen. The trial and error period would require constant support and guidance from top management since critical decision may need to be taken. For example, the processes decided in the original plan may not be found feasible during the testing phase owing to technical limitations or other such issues. Therefore, alternative plans and strategies need to be evolved and tested to ensure compliance with the desired objectives. Apart from the exigencies, the top management should offer advice with regard to the processes planned in e CRM. The costs to be incurred need the deliberation and certification of the top management and they could make decisions with regard to the costs and the benefits that the e CRM would offer.

## **Establishing Customer Relationships on the Internet**

The internet offers companies the opportunity to build customer relationships using direct access with the customers. However, the challenges of building internet based relationships differ from those undertaken through traditional methods. The issues that need to be borne in mind while managing customer relationships on the internet include:

### **Direct Interactions**

Since the internet enables direct interactions with customers, the company would get a direct feedback from the customers. The direct interactions would help in reducing the transactions time for customers and also enable the company to get first-hand information. Otherwise, companies had been using their channel members for customer interactions and often the message sent by the customer gets distorted as it moves through the channels to the company and sometimes the message does not even get conveyed to the company and is lost in the maze of the channels.

### **Co-creating Value With Customers**

The customers visiting the website click on the various sections and satisfy themselves with regard to the features and other issues concerning the purchase. The interactions with company employees are minimal. Even ordering of products and making payments are done by the customer without any active involvement of company personnel. In this manner, the customer co-creates value and enables lowering customer service costs for the company. Therefore, companies offer lower prices to customers transacting through the internet since they use the self-service method.

### **Need for Electronic CRM**

The need for e-CRM is dictated primarily by the new global, electronic economy, as against the old offline business model, through which the company earlier reached out to its customers. In the new Net economy, the customer is reaching out to the company in the same way that a business house would have to find ways to service its brick and mortar storefront. In other words, the company has to find a way to face outwards and automate its marketing, sales and service functions, so that it is easy to be able to serve the customer and offer him a high degree of satisfaction. The solution is a highly integrated e-CRM solution that provides a simple view of the customer for the enterprise and conversely, a single view of the enterprise for the customer.

The need for CRM has always been there because there can be no business without customers

and customers of value can only be acquired and retained through relationships. But e-CRM has added many new opportunities and challenges to this axiom. The 'e' in e-CRM creates an 'anytime, anywhere, through any medium of communication' paradigm that offers challenge. The next challenge is the increasing realization that e-CRM is a high-velocity and real-time process. Hence, it succeeds only when it is part of an overall business process. Supply chain management and other business processes must therefore be integrated seamlessly into the customer-facing process. Thus, e-CRM is part of the comprehensive relationship management strategy of an enterprise.

From the view point of companies, e-CRM is critical because of the:

- ◆ High cost of phone-based support, and
- ◆ High attraction rate of phone-based consumer care representatives.

e-mail and chat are more cost-effective for the company as they offer companies an easy way for tracking their customers.

Customer relationship management means placing the customer at the centre of everything that the organization seeks to provide and accomplish.

### **Key e-CRM Features**

Regardless of a company's objectives, an e-CRM solution must possess certain key characteristics. It should be;

- ◆ Driven by a data warehouse
- ◆ Focused on consistent material to assess customer actions across channels.
- ◆ Built to accommodate the new market dynamics that place the customer in control.
- ◆ Structured to identify a customer's profitability or profit potential and to determine effective investment allocation decisions accordingly, so that profitable customers can be identified and retained and resources can be invested in the most profitable relationships.

### **Implementation of e-CRM**

The implementation of e-CRM entails much more than system automation. Implementing e-CRM necessitates more than merely automating the related functions and addressing the infrastructure requirements for its implementation on the web. It requires a fundamental change in the culture, philosophy, attitudes and operations of an organization and hence, the need to



initiate a change management process to move from a product-centric focus to a customer-centric one.

**The e-CRM implementation strategy should thus aim at:**

- ◆ Gathering, storing, sharing/retrieving and tracking a customer database repository, analyzing this information and deciding upon the relevant course of actions.
- ◆ Automating and streamlining an online customer service by installing the necessary software and hardware.

The steps that companies should follow while implementing e-CRM are as follows:

1. Get a firsthand feedback from customers, preferably through an unbiased third party. This would be very useful in identifying problem areas in the customer relationship management cycle and constitutes a key impact for any e-CRM implementation exercise.
2. Successful e-CRM implementation necessities putting a well-planned infrastructure in place, which allows the capture, storage and analysis of customer data.
3. There is an increasing need in the country for institutions offering high-class e-CRM training programmes to organizations, as this could save them enormous cost and time spent on learning and implementing e-CRM.
4. Organizations need to select the e-CRM vendors cautiously and must choose those that offer sufficient training, incentives, etc., to their employers/representatives and bring with them a rich and diverse experienced in the field.

**Major Trend in Electronic CRM**

Three major trends in the industry which will create an explosion of e-CRM services are:

- ◆ Explosion of broadband
- ◆ telecommunication network and services, Penetration of mobile data devices, and
- ◆ Customer care using offshore labour and web-based technology.

## **Basic Requirements of e-CRM**

These are discussed in detail below.

### **Electronic Channels**

New electronic channels such as the Web and personalized e-messaging have become the medium for fast, interactive and economic customer communications, challenging companies to keep pace with this increased speed of communications.

### **Enterprise**

A company gains the means to touch and shape a customer's experience across the entire organization, reaching beyond the boundaries of marketing to sales, services and assessment of customer behavior.

### **Empowerment**

New consumer empowerment, an e-CRM solution, must be structured to deliver timely, pertinent, and valuable information that a consumer accepts in exchange for his or her attention.

### **Economics**

Customer economics drives smart asset allocation decisions, directing resources and efforts aimed at individuals likely to provide the greatest return on the customer communication initiative.

### **Assessment**

Understanding customer economics depends on a company's ability to attribute customer behavior to marketing programmes. A company should evaluate customer interactions along with various customer touch point channels and compare anticipated ROI against actual returns, through customer analytic reporting.

## **Electronic CRM Applications**

The various e-CRM applications can be seen in the following in industry segments.

- ◆ Banking and finance Telecom
- ◆ Courier, and
- ◆ Government organizations.

### **Technologies of e-CRM:**

The computer technologies including data warehousing, customer profiling, and decision support are applicable to e-CRM. The web and related computer developments make a variety of additional technologies that can be applied to e-CRM. The more notable technologies are as follows:

- 1. Voice Portals:** These allow users to access the content on a website through a cell phone. This is possible with technologies such as Voice XML that can provide web access with a standard wired or cellular telephone. Commercial voice portals such as BeVoal, Tell Me and Shoptalk provide voice access to stock quotes, movie listings and daily news. Automatic services reduce call centre costs especially for package tracking; account status and answering frequently asked questions (FAQs). The current limited to particular domains and such domain requires a different grammar.
- 2. Web Phones:** It is also known as Internet Protocol (IP) telephony. Web phone technology supports voice communications over the internet, obviating the need for the telephone network. This allows a fuller integration of voice and textual data. Several companies including 3Com, Cisco and Mitel are experimenting with IP telephony systems that can be applied to CRM..
- 3. Virtual Customer Representative:** When it comes to a conversation, a face or a facial expression is worth a thousand words, because they add dimensionality. There are companies who offer three-dimensional animated "talking heads" which can be used as front ends to e-mail and CRM applications. When linked with one of the conversational BOTs described earlier and a text-to-text speech (TTS) engine that voice and the virtual rep engine the three-dimensional character.

The realism of the virtual rep is enhanced by the three-dimensional appearance, the normal random blinking, roving eyes and the lip-synched movements choreographed to the TTS output. The three-dimensional character can be a model or that generated from a series of digital photos (front and side views) of someone in the company.

Other similar systems also have been developed to enhance business through wireless devices. Instead of keying expression to the text generated by a BOT, these systems use a camera to monitor the customer's facial expressions and instruct the virtual rep replicate them. In this way, a realistic image of Customer Service Representative (CSR) can be reproduced on the customer's low bandwidth cell phone. That is, the system acts as a form of compression, allowing realistic video images to be used in communications, even though bandwidth limits do not allow video

images.

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