

Review Article

ANALYZING THE ROLE OF E-CRM IN MANAGING CUSTOMER RELATIONS: A CRITICAL REVIEW OF THE LITERATURE

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Received: 22.12.2019

Revised: 20.01.2020

Accepted: 23.02.2020

Abstract

E-commerce has emerged as a convenient tool for companies to serve customers with integration of online sales and marketing. Despite being an automated self-service solution to customers, the e-CRM applications lacks focus on effectively serving each customer needs. The aim of the present study is to explore the concept of e-CRM and its various strategies in designing its practices and applications for building customer relations through review of literature. The study carries strong implications as it identifies the strategic role of e-customer relationship management (e-CRM) in providing personalized and customized support to customers.

Keywords: E-Commerce, Customer Relationship Management, Technology, Customer Service, Customized Services.

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INTRODUCTION

Providing customized services have always helped companies to maintain better relations with their customers. According to the concept of relationship marketing, maintaining better customer relations involve building up a network with individual customers through the services being offered to them which will strengthen the network between the company and the customer and eventually provide value addition to the company(Park and Kim,2003).E-commerce is the application of electronic means in making business transactions; the internet has surpassed the outreach of e-commerce by providing faster transmission media. To help the customers in search process, new business projects with innovative ideas have been possible to be served via e-commerce (Chappell et al., 2018).

The Internet has emerged as a factor for growth of e-commerce in which trust and security are considered to be the major elements of concern for the customer for which e-vendors are required to be authentic, provide confidentiality, respect privacy, protect data and not repudiate transactions. E-vendors aim should be to help customers by various practices like by giving smooth navigation experience, doing surveys and finding the preferences and urgencies of customers, giving the benefits of loyalty programs, giving credit on the money through reward points, giving choices for payments i.e., through credit cards, debit cards or net banking, providing interactive services by training customer's support to answer the queries of customers well (Lazakidou et al., 2008; Maniam et al., 2012). Functionality of product and psychological factors are the major determinants for online customer service experience. Factors like familiarity, layout, social presence, videos on product usage, interactivity, value for money are some others determinants while shopping online (Klaus, 2013).

E-Commerce

E-commerce has provided various opportunities to increase the customer base i.e. convenience, huge information about product catalog, 24*7 services, boosting brand awareness, accessing multi sites and many more. E-commerce has emerged as a convenient platform to shop over the years (Bai et al., 2014; Chiu et al., 2017). For managing customer relations, electronic customer relationship (e-CRM) has helped companies increasing their reach to the customers as well as for collecting potential data of customers. The advancement in technology is helping

companies in getting data through various touch points like at the time of point of purchase customers are asked to fill software oriented feedback forms (Chen and Popovich,2003;Becker et al.,2009). Using such data helps the companies to get feedback for their services as well as suggestions to serve better and e-CRM initiative helps making customer experiences desirable whenever they shop online. It has been used helping to reduce expense and to make business more efficient and at competitive benefits. The various opportunities provided by e-CRM includes interactive and improvised customer relationships, managing customer's touch points as well as personalizing with customers (Adlin et al.,2019). E-service quality, ease of use, and usability are positively significant towards e-CRM performance (Zandi and Tavarna 2011; Momani, 2009).

CRM

CRM is defined as a combination of business process and technology that seeks to understand company's customers from perspective of who they are, what they do and what they are like (Couldwell, 1998). Another group of authors (Peppers and Rogers, 1995) consider IT as one of the vital and important aspects of CRM and they define CRM as "the market place of the future is undergoing a technology-driven metamorphosis". Kotler and Keller (2011) disagree with both above mentioned approaches to CRM and redefined CRM as "the process of carefully managing detailed information about individual customers and all customer "touch points" to maximize loyalty". These customer touch points occur at any occasion when the customer approaches the brand or product. In marketing literature, the term customer relationship management is often used interchangeably with relationship marketing. According to Bickert (1992), customer relationship management is database marketing which emphasized promotional aspects of marketing linked to database efforts. Lancaster et al., (2003) stated that effectively used CRM strategies enable companies to provide high quality service for the right customers in real time conditions by offerings, services, programs and other ways and it results in the development of the business. Chartuvedi and Bhatia (2001) stated that CRM is essentially a business strategy for acquiring and maintaining the right customers over the long term for which e-commerce is one of the channels for effective customer relationship management. E-CRM describes the broad range of

technologies used to support a company's CRM strategy. It rose from the consolidation of traditional CRM with the e-business applications marketplace. ECRM has emerged as an intersection between two important industry initiatives, the booming Internet market and the shifting focus to customer-centric strategies (Bradway and Purchia, 2000). ECRM is sometimes referred to as web-based CRM and emerged from this view e-CRM has been defined by Forrester Research (2001) as a web centric approach to synchronizing customer relationships across communication channels, business functions and audiences. CRM through e-commerce has improved the whole buying experience by its customized and personalized services (Maniam et al., 2012). According to Ngai (2005) CRM falls in to five broad categories general, marketing, sales, service and support and IT & IS.

ECRM

Organization readiness, customer service, knowledge management, online communication and technology support leads to e-CRM success (Cherapanukorn, 2017). Organizations are willing to introduce e-CRM practices to attract, maintain and enhance customer relationship as it is beneficial for customer loyalty and profitability of organizations (Reichheld, 1996; Winer, 2001, Pan et al., 2003). E-CRM is used widely as a management approach in today's business world. It refers to marketing activities, tools and techniques delivered through the Internet, using technologies such as email, the worldwide web, chat rooms, forums, social media, etc., with the goal of locating, building, and improving long-term customer relationships (Lee-Kelley et al., 2003; Malthouse et al., 2005; Rodriguez et al., 2015; Turban et al., 2017). Nowadays e-CRM is adapted in different sectors like banking, tourism, airlines etc. Banking sector also goes for interpersonal communication, preferential treatment and providing rewards to the customers (Lam, 2013). Self-service technologies results in more effective customer relationship management. Self-service check-ins, airlines check-ins are user friendly and customers find it convenient too. Customers replacing employee's actions by doing self-service activities contributes to a firm's productivity also. For an efficient relationship building in an online environment constructs like identifying online customer by doing proper market segmentation and finding about the type of user, website designs, information gathering and handling, communication with customers makes it stronger (Stockdale, 2006). Consumers do online shopping due to the service provided by online retailers and for the various benefits they get like promotional offers. However there is still a scope of improvement that need to be done by e-commerce websites like display of products and services, return and exchange procedures must be clear and transparent, after sale services, the grievance redress system need to be more responsive and it should provide quick services. Consumers shun online shopping due to lack of trust on e-commerce websites for which the online retailers should understand online shopping behavior as customer preferences keeps on changing (Bhagat, 2015; Shahin et al., 2017)

Customer satisfaction through e-CRM can be extracted from four parameters namely: perceived service quality, perceived sense of community, perceived price fairness, perceived customer orientation which has positive effect on customer's satisfaction. The researchers used the expectation confirmation theory to state that customer expectations are directly related to performance. The satisfaction of customers is gained through confirmations, negative confirmation leads to dissatisfaction while positive confirmation leads to satisfaction (Tahir et al., 2013). Customers require fast and efficient services as compare to traditional services. The quality of service is one of the major determinants that affect customer satisfaction. One of the scales given by Yoo and Donthu (2001) had given SITEQUAL scale with nine items for measuring website quality on four dimensions namely processing speed, aesthetic design, ease of use and

security. Strategies for improving website designs, making them readable, visually appealing and user friendly are some of the attributes that holds importance for companies for customer usage. In the environment of internet many scholars support that e-service quality as it has a major effect on customer satisfaction. The study included a research model in which e-service quality dimensions including design of web site, ease of use, reliability, customer service which linked customer satisfaction and customer loyalty on the hypotheses that customer satisfaction affects customer loyalty (Bai et al., 2014).

The companies do consider four strategic quadrants for increasing e-business namely technology, brand, service and market. Brands as in customer profile is raising so companies are using brands strategically by repositioning their brands online with new brand extensions, companies need good market share with profitability, appropriate usage of advanced technologies for providing best possible services to customers for customer development (Willcocks et al., 2001). Retaining customers is of much importance than acquiring new customers for which companies are adopting online services (Baranov, 2012).

LITERATURE REVIEW

Promotion, price, merchandise, supply chain and location have been prominent in providing superior customer value. Consumers interaction and experience management entitles a business strategy to provide valuable exchange to customers as whenever a customer engages with a business of product or service it lasts as an experience for future endeavors (Payne and Frow, 2005; Grewal and Kumar, 2009). Managing customer relations is very unpredictable and dynamic. Traditionally, in most of the cases it is seen that customers always look what are the service providers providing them as being there customers but with the changing time the perspective of customer has changed. The customers evaluate the service providers on the bases of the value they create for them. A dualistic approach of interaction into the customer and service provider is what being practiced for creating value for each other, firms require new tools and technologies for understanding and evaluating customer relationships which could be explored by taking customer's perspective in view of how well they are integrating the value created by different service providers (Heinonen, 2014). On the bases of review of various articles published in eminent journals, CRM could be identified into four major branches: Strategic, Analytical, Collaborative and Operational. Systematic analysis and use of customer information as a platform for marketing management is termed as strategic CRM. Analytical CRM involves analysis of the data for market efficiency in different ways. Collaborative CRM refers to collaboration of various communication channels like websites-mail, self-service which are being used as a communication strategy. ICT (Information and Communication Technologies) based support is provided for operational CRM for providing front office activities including sales, service and support, such support which is used by sales staff while contacting their customer. Further findings in addition to it were that Strategic and Analytical CRM dominates a lot of research work which includes salient topics related to new business practices, multichannel management and various analysis methods on customer's data and profiles (Fig. 1). The research implications implied that a lot of research work needs to be done in collaborative and operational CRM which talks about the development of ICT (Information and Communication Technologies) to tap various customer touch point (Wahlberg et al., 2009; Wang and Feng, 2012). A major shift had occurred from brick to click due to the competitive environment of business.

The companies are using the customer data collected and quickly adopting various multimedia channels which customers can easily access like via emails, television, and mobile internet, IVRs or company's websites (Fig. 2). Organizations cannot survive supporting only one channel because customers look for multiple

options while buying and also for after sale service according to their comfort. But the major concern of organizations is to decide on what occasions which customers want to use specific media and how the companies are going to direct customers towards the companies chosen medium. Every medium has its own set of facilities. Brining consistent personalizing essence during selling of the products and services via different channels as per customers' taste and preferences, leisure interests and purchasing patterns helps serve them better (Bradshaw and Brash, 2001). Data sharing and integration is required to give customer the best experience every time. The data should be well reviewed to know which part of the data is structured or unstructured that can be used further. Usage of web services with appropriate application tools helps making it effective (Shah and Murtza, 2005).

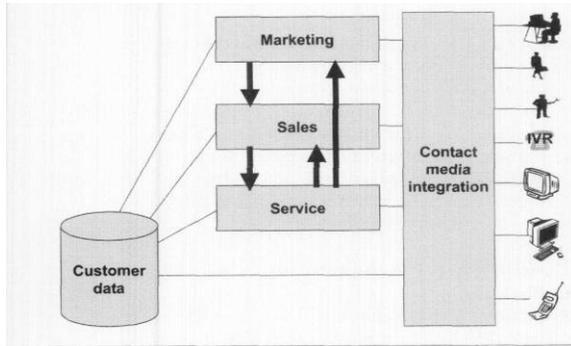


Fig. 1: CRM and Multiple Media

Source: Bradshaw and Brash (2001)

As per fig. 1 the customer data collected is used to form a customized service which is used for marketing and sales. The service is personalized and communicated to customers through various media integration like through television, internet, IVR's, cell phones.

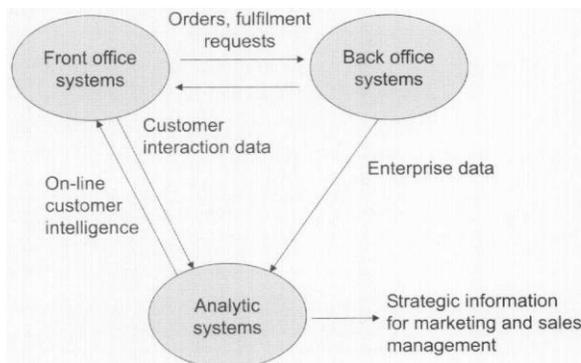


Fig. 2: Managing Customer Relationships in the E-business World Source

Source: Bradshaw and Brash (2001)

As per fig. 2 "The Virtuous Triangle of CRM" the front office systems take orders and gives its attainment requests to back office systems. The back office systems provide enterprise data to analyze and then strategize the information for marketing and sales management. The front office systems provide customer interaction data to back end for analyzing and strategizing. Then the information is used as online customer intelligence for further dealings with the clientele.

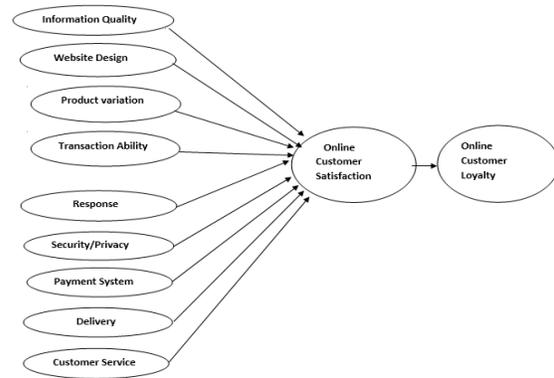


Figure 3:

Source: Dharmesti and Nugroho (2013)

One of the strategies adopted by researchers is to frame a model and understand how to make online buying and selling more convenient and what factors are essential to be kept in mind while designing applications for maintaining long term customer base as per firm's business requirements. The above framework is a research model, adopted by the researchers (Dharmesti and Nugroho, 2013) which includes attributes like information quality, security, payment system, delivery, customer service, transaction ability, response, web design and product variation are important for retaining a customer in the cause and effect relation between satisfaction and loyalty for the products and services offered by companies. These attributes for online transactions were analyzed on some hypothesis which resulted that information quality, security, payment system, delivery and customer service towards customer loyalty are significantly mediated by customer satisfaction (Fig. 3). Web design and product variation have direct significant effect to customer loyalty. Transaction ability and response does not have any significant impact both customer satisfaction and customer loyalty. ECRM impacts both pre purchase and post purchase affects both. However, perseverance is considered an important antecedent in maintaining customer satisfaction in an electronic customer relationship management framework (Dharmesti and Nugroho, 2013).

Problem Statement:

There has been little understanding towards the role of e-CRM in building customer relations. So the present study aims towards understanding its role and to find out various strategies for developing practices and applications of e-CRM for maintaining customer relations with special reference to e-commerce industry.

So, to know better the role of E-CRM, the present study tries to investigate the following:

- To understand the role of E-CRM in managing customer relations with special reference to e-commerce industry.
- To find out customer relationship management strategies/best practices and applications followed by e-commerce industry while maintaining customer relations.

METHODOLOGY

A review of literature was being done to understand the role of e-CRM. The role of e-CRM in different industries varies depending upon the research model for the business adopted. Based on various researches Table 1 shows composition of some research models adopted for supporting e-CRM:

Table 1: Research Models for e-CRM

Authors	Research Model
Wu et al., (2005)	TAM model theory analyses how users come to accept and use a technology subsequently the behavior is influenced

	by attitude and behavioral intention.
Chang et al.,(2005)	TOE model referring to e-CRM information technology consist of technology integration and customer information analysis. Technology integration refers to firm's efficiently using IT resources
Racherla and Hu (2014)	TOE framework (Technology organization and environment framework). Technological context: direct benefits and indirect perceived benefits and compatibility Organizational context: Organization readiness, customer knowledge

	management Environmental context: intensity of competition, pressure of partners and expectations of customers leads to successful e-CRM adoption.
Harrigon(2010)	Conceptual model for e-CRM Information technology leading to CRM capabilities.

The second objective of research also covers a review of previous research as outlined in table 2 about the applications which led to e-CRM. The research helped to understand the various ways through which e-CRM could be practiced. This helped to understand the advancement of technology in the area of e-CRM with the passage of time.

Table 2: Applications of e-CRM

Authors	Practices/Applications
Shan and Lee (2003)	Direct Mail Email Internet Phone/Fax Contact management: outbound, inbound, sales force and services
Romano et al., (2004)	Chat Rooms Bulletin Boards and Fan Clubs Mailing Lists News Groups Observation studies through virtual reality and simulated environments Product-related discussion groups and lists Forums Internet Surveys Recommender Software E-mail Online focus groups Interactive online interviews Survey panels Auctions Online trade shows Shopping agent
Khalifa and Shen (2005)	Online surveys
Kennedy(2006)	Companies using web based CRM: KPN Mobile N.V.-A civic programme (For Very Important Customers CRM implementation): Details of customer's history on agent's monitor including contact details, mobile calls and service behavior. It also updates about campaigns going online and various privileges were being offered. ESB International-Developed and updated customer profiles through eCRM system. All customer issues are being tracked and monitored. Metrics emerging from eCRM system focus on issues and success rate in doing business and measuring repeat business. Nestle-The Nescafe brand launched Netspresso one of the web based CRM system takes the advantage of rewarding frequent drinkers to support customer loyalty and retention programs.
Ahuja and Medury (2010)	Organizations using corporate blogs
Sigala(2011)	eCRM 2.0 strategies trains at exploiting both networking and social/customer intelligence
Farooqi and dhusia (2011)	Using telephone contact for internet e-mail wireless mobile and PDA(personal digital assistant) technologies
Adlin et al., (2019)	1. Chatbots: A computer program used for conversation through auditory and textual methods. 2. Virtual Customer: Online handling customers. 3. Interactive Voice Response: An automated telephony system which is capable of calling and is relevant to the appropriate destination, as well as interacts with callers. 4. Voice Over Internet Protocol: The VOIP does transmission of multimedia and voice content over Internet Protocol (IP) networks.

MAJOR FINDINGS AND CONCLUSION

On the basis of the papers reviewed the role of CRM is prevalent for long term existence of the firms by managing good customer relations. E-Commerce has provided various benefits to companies like cutting costs, enhancing the efficiencies of value chain, building brands, producing revenue and improving customer relationships. The companies are using various multi-

channels for communicating superior customer value. E-commerce has made it possible communicating through multi-channels like emails, websites, fax etc. E-Commerce has aided the companies to reach its objectives by applying E-CRM as one of the instrument for reaching and increasing more customer base by providing personalized services, maintaining long term relationship and providing convenience which is possible in a

digital atmosphere. It also provides competitive benefits to companies in today's world. While doing any business transactions, online customer relationship software's keep records of customer purchase history and data at every e-purchase done which suggests the companies with new ideas in serving customer better based on their purchasing pattern. However, major dimensions identified through the study on which online transactions depends are trust, quality of information, design of website, variations in products, ability of transactions, response, security, system of payments, delivery, reliability, ease of use and customer service for maintaining online customer satisfaction and online customer loyalty. Companies are adopting various strategies and practices based on these determinants to serve customers well. Self-service technologies are one of the examples of such practices.

DISCUSSION

With the advent of time CRM has to be evolved due to the increasing competition and advancement in technology. E-commerce has changed the scenario of transactions from physical delivery of products in to online buying and selling. Customers can buy brands at home itself by doing online shopping, business transactions can be processed, tracking of orders, gathering any information, finding best offers and more importantly finding out most convenient and easy way of doing transactions. Due to the fast and changing pace of technology CRM, adopted various practices to strategically attract customers. With the passage of time these technologies got upgraded with various features making them more convenient to use. Various organizations are using such practices and building their own CRM software to increase their customer base and reach. Customized applications are helping them to grow their business as per their strategic models of doing business which is helping them grow their various business units.

IMPLICATIONS OF THE STUDY

Managers should aim to apply strategically e-CRM applications to increase sales. Such practices would lead to increase in building customer relations in a more convenient and faster way. The management should plan the applications for e-CRM as per their business models. The model should interpret the attributes of doing business transactions essentially while going for online mode of doing business to achieve the objective of making the business more convenient to its clientele. It should be user friendly as every customer aspires it to be. A quick response and speedy delivery of products is appreciable by customers.

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