



Electronic Customer Relationship Management, Customer Satisfaction, and Customer Loyalty: A Comprehensive Review Study

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Abstract: *Electronic customer relationship management (E-CRM) is the implementation of E-technology or internet-based technology in order to attain customer relationship management (CRM) objectives. According to the literature, E-CRM is about technology, processes and people and E-CRM is to gain customer loyalty. The impact of E-CRM on customer satisfaction and customer loyalty has been investigated by previous scholars. The major purpose of current study is to review relevant studies of which have been conducted on determination of E-CRM on customer satisfaction and loyalty of customer. In order to achieve this, authors searched various related journals indexed in valid databases for collection of sufficient bibliography and then reviewing them in details. Findings provide information about each source, indicating what can be found there and how the information can be helpful. This article fulfills an identified information/resources need and offers practical help to an individual and academic starting out a research on E-CRM and its relationship with customer satisfaction and loyalty. Moreover, this study will bring helpful insights for the managers of service industries to implement the E-CRM in the best shape and match it with their organizations or industries' culture to enhance level of customer loyalty and gaining more profitability and revenue for their own businesses.*

Keywords: *Customer relationship management, electronic customer relationship management, customer satisfaction, customer loyalty, service industry.*

1. INTRODUCTION

Since last 40 years, a dramatic change has been observed in conducting business. Now due to the internet the shift from traditional business to electronic business has been observed, where dealings are based on electronic mails (e-mail), information systems and World Wide Web (www) (Khan and Khawaja 2013). Nowadays companies are investing heavily on technology to retain their customers, considering that today customers are more knowledgeable, well informed of the competitors and need in time response. Due to this, CRM has emerged as a source for employing relationship marketing within companies and with customers (Plakoyiannaki and Tzokas 2002). Based on Gartner explanation, CRM is a business strategy designed and implemented to help the firms and companies to know and foreknow the requirements of their potential and obtainable customers.

In accordance with Scullinet *al.*(2002) and Alhaiouet *al.*,(2009), the main objective of any firm in online marketing is to maintain the relationship with its clients. They argue that with the appropriate E-CRM implementation, the following advantages can be succeeded: more effective marketing, enhanced customer loyalty, cost

reduction, greater efficiency and enhanced customer support and service. Indeed, in the modern marketing, E-CRM has been viewed as one of the most significant ideas (Ab Hamid, Cheng et al. 2011).

It is noteworthy to state that through the technology platform for example the internet, an efficient customer relationship can be developed that might help in improved satisfaction, retention and loyalty of consumers (Azila and Noor 2011, Behravan and Rahman 2012).

Many studies have been conducted on the predication or determination of E-CRM on customer satisfaction and customer loyalty such as (Mousavai, Hamid et al. , Lee-Kelley, Gilbert et al. 2003, Khaligh, Miremadi et al. 2012, Ismail and Hussin 2013, Khan and Khawaja 2013) and many other conducted studies by scholars in this research era of which will be reviewed in the literature review part of current scientific review article.

To outline current study, it is notable to state that it will be followed by CRM and E-CRM definitions according to the literature. Afterwards, the relationship among E-CRM, customer satisfaction, and customer loyalty will be explained. Then, some selective studies will be reviewed in details, and finally this review article will be finalized by stating sources of data and conclusion part and highlighting originality/value and academic benefits of this scientific review article.



2. LITERATURE REVIEW

2.1 CRM Definitions

In general CRM is a business strategy, which aims to obtain new customers and maintaining current customers to increase competitive advantages. CRM helps firms retain relationships with customers that are directly connected to competitive compensation. The basis of CRM is relationship marketing, which aims are improving the long-term profitability of customers through moving away from product-centric marketing to customer-centric (Etzion, Fisher et al. 2005, Shim, Choi et al. 2012, Zakaria and Mohammadhossein 2012).

Customers are the important factors in each business. In any company, the loyal and the fixed customers are expecting more level of service qualifications, appropriate transaction, and customized products. Therefore, it means that the companies should be aware of each customer to enhance the loyalty and effectiveness. For this reason, CRM systems can help to change the way that each company is treated with customers and employees, to increase its income and obtain higher final profit. Nowadays, organizations are implementing CRM applications more and more because CRM will help them to attain a range of business benefits (Ballou 2007, Richards and Jones 2008, Asadi, Zakaria et al. 2013)

Moreover, implementing CRM will consider as a set of information processes and technology tools for enterprises that facilitate the firm to raise its CRM (Boulding, Staelin et al. 2005, Rogers 2005, Reimann, Schilke et al. 2010, Victor and Eugen 2011). It will increase the firm's ability to earn profits and generate higher-quality products or services. Based on Gartner explanation, CRM is a business strategy designed and implemented to help the firms and companies to know and foreknow the requirements of their potential and obtainable customers. Find out, attract, and find new clients and customers are the critical aim of the CRM. Pay attention and be responsible to those customers who are loyal, attract previous customers for come to the company again, and reduce the cost and money of promotion; marketing and customer service are also goals of the CRM (Ngai, Xiu et al. 2009, Nguyen and Mutum 2012).

Although CRM has a crucial impact on the firms and organizations, there are some advantages and benefits of implementing CRM which have a direct impact on the customers, and will bring customer's satisfaction and improving retention of customer. Assessing and finding the benefits of CRM is a vital aspect of managing. These benefits will help the firms to realize the way that increase effective relationship with customers and finally will profit firms.

It is very important that, firms understand the value of establishing close relationships with customers to growing retention. Knowing customers will permit firms to serve them better and keep them loyal forever (Rababah, Mohd et al. 2011). This is the main theme of CRM. Therefore, defining of CRM is essential for rising and developing a clear perceptive and vision of what CRM means to a business and organization while the need of such obvious understanding is considered as a hindrance to successfully implement CRM (Nguyen, Sherif et al. 2007, Garrido-Moreno and Padilla-Meléndez 2011, Nguyen and Mutum 2012).

CRM is the combination of marketing efforts, business processes and technology which will lets the firms to know and distinguish their customers from numerous perspectives (Chang 2010). In addition, a number of studies define CRM more holistically and they attempt to describe CRM through its association with technology, and also as a business strategy (Bose 2002, King and Burgess 2008). (Kincaid 2003) defined CRM as a "strategic tool that use of information, processes, technology, and community to handle the customers relationship with the company departments such as marketing, sales, services, and support, during the customer life cycle", and (Buttle 2004) quoted that "CRM is an integration of technologies and business processes used to satisfy the requirements of a customer throughout any given interaction".

CRM involves achievement, analysis and utilize of knowledge about a customer to sell more goods and more efficiently. Consequently, it is obvious that satisfying the requests and requirements of customer is an important and significant part of CRM (Rababah, Mohd et al. 2011).

2.2 E-CRM Definitions

The business environment of the digital economy has advanced into a competition that is established on the ability to innovate, speed and shaping strategic alliance with industry players along with customers. The arrival of advance technology like the internet facilitates the companies, either small or large, to compete in a cost effective way than ever before. The low-cost greatly efficient internet technology, in a competitive market where communication, information and effective coordination are vital, makes the value addition possible and even modified services to be provided (Anderson and Srinivasan 2003, Alhaiou, Irani et al. 2009, Maroofi, Darabi et al. 2012).

The competition is mainly among business centers on supplying value to consumers via quality of services to the consumer. Through the technology platform for example the internet, an efficient customer relationship can be developed that might help in improved satisfaction, retention and loyalty of consumers (Azila and Noor 2011, Behravan and Rahman 2012). A positive tendency of growing awareness of the advantages of internet marketing is found by (Khatibi,



Ismail et al. 2002) . Ab Hamid *et al.*,(2010), highlighted that increasing consumer loyalty and satisfaction is owing to some features like the accessibility of value-added services and improved product information on the internet.

Managing customer relationship with the development of web technology definitely requires businesses to engage and collaborate with their customers via the meaningful application of the technology, for instance the social media. Many company managers recently required to be conversant with the significance of E-CRM(Ab Hamid 2008, Cheng, Ab Hamid et al. 2011). As oppose to retaining an existing customer, it costs the industry five times as much to get a new customer; hence, building sustainable and long-term customer relationships was a noble strategy, from the perspective of both the business cost savings and in building lifetime value relationship (Peppers and Rogers 1996, Gordon and De Lima-Turner 1997, Haque, Sadeghzadeh et al. 2011).

Scullinet *al.*(2002), contended that through the successful implementation of E-CRM, companies want to attain the massive gains of high return on investments (ROI) with increasing customer loyalty. Kumar and Vikkraman(2011) , indicated that if E-CRM is implemented successfully, it can allow consumers to access services and information about products that are more convenient and less expensive, as compared to the traditional means of assisting consumers to assess and buy products. Alhaiou(2011), states that, product configuration, electronic commerce ordering, tracking and pricing are included in web-based applications or E-CRM. Kumar and Vikkraman(2011) ,believe that instead of allowing employees of a company to take care of them directly, the E-CRM consumers use self-service tools on the web and, therefore, customers become active players in the service and purchase process. They found that in this way, more knowledge is acquired by companies regarding the customer and, in contrast, the customer is authorized to control and manage the process through the website.

Every single company, as identified by Fjermestad and Romano (2003), involved in an online business should educate themselves about E-CRM. They consider that various companies started to spend money, for faster implementation of E-CRM, before establishing an ample E-CRM strategy and, consequently, a lot of companies are discontented with their E-CRM application (Osarenkhoe and Bennani 2007). Feinberg *et al.*,(2002), investigated the affiliation between customer satisfaction and E-CRM features. They insist that companies should only integrate those E-CRM features on their websites that are noteworthy for customer satisfaction and decrease the company's cost. Wixom and Todd (2005) and Shih and Fang (2004) tested features for example 'usefulness' and 'ease of use' as elements of satisfaction in the context of online. They claimed that the ease of use and usefulness of online shopping, subsequent to service quality and low economic

costs are features that influence satisfaction of consumers and thus determine their channel inclination. The variances between E-CRM and CRM are subtle but significant; they concern the fundamental technology and its interfaces with other systems and users. Such as, E-CRM offers the capability to pay attention to consumers through the website, or consumers being capable of taking care of themselves online, since several E-CRM systems offer the consumer with a self-service browser based window to check order status; place orders; review purchase history; send e-mails; request extra information about products; and involve in a bulk of other activities (Rowley 2006, Lin 2008, Gounaris, Dimitriadis et al. 2010, Udo, Bagchi et al. 2010).

The consumer is not restricted to communicating an organization anymore throughout regular business hours, and the organization does not need to give a live connection at the other end for consumer requests and inquiries. Basically, customers in an E-CRM environment do most of the work not for the businesses but for themselves (Chandra and Strickland 2004, Sophonthummapharn 2008, Almir and Andela 2012). CRM applications are aimed around job functions and products. The applications are designed in E-CRM with the consumer in mind and provide the consumer on the web, the "total experience" (Udo, Bagchi et al. 2010).

In the literature, there are numerous definitions of E-CRM. Linking the internet to CRM has simply created this term E-CRM, in addition to traditional CRM. The E-CRM is defined by Jutla et al., (2001) as the customer relationship maintenance element of e-business. Greenberg (2002), submitted that CRM online is actually E-CRM. Consistent with Romano and Fjermestad(2001), E-CRM is related to keeping and attracting economically valued consumers and reducing those who are less profitable. Purba(2001), concluded that "E-CRM is the implementation of E-technology (or internet-based technology) to attain CRM objectives."

Bergeron (2004), described that E-CRM is actually CRM on the web and involves the e-commerce activity and use of email and other internet-based touch points. There are two chief categories of E-CRM as proposed by Dyche(2001), which are analytical E-CRM and operational E-CRM. Analytical E-CRM entails technology to process a big quantity of consumer data. Operational E-CRM is linked to the consumer touch points; which can be e-mail, web-based, fax, direct sales, telephone etc. Rigby *et al.*,(2002) contended that E-CRM is not merely about software or technology; it is regarding bring into line business processes with consumer strategies assisted by technology and software.

Rosen (2001), recommended that E-CRM is about technology, processes and people. Romano and Fjermestad(2003), identified that there are five key non-mutually-exclusive E-CRM study zones: E-CRM human



factors; E-CRM markets; E-CRM technology; E-CRM knowledge management and E-CRM business models, and every major area are composed of minor ones. Consumers generally interrelate with E-CRM with objectives connected with transactions, for example order making, information searching, arranging delivery and online payment, which trail a cycle or sequence. The supposition behind this arrangement is that at every phase of the purchasing process, the consumer wants to use particular E-CRM factors (Feinberg, Kadam et al. 2002, Khalifa, Jagadish et al. 2002, Khalifa and Shen 2005).

Similarly, E-CRM is generally intended to serve these three areas, pre-sales information, post-sales support, and e-commerce services (Feinberg, Kadam et al. 2002, Lu 2003). As instant assessment objects, E-CRM functions imitate the efforts of the company to satisfy the needs of customer inside these three phases of the transaction cycle (Liu and Arnett 2000, Lee and Lin 2005). Solomon *et al.* (2004), distributed into the decision-making process post-purchase, at-purchase, and pre-purchase phases. The needs of the customer and related activities differ for dissimilar transaction cycle phases, and thoughts of consumers and assessment standards in the pre-buying phase vary from those in the post-buying phase (Gardial, Clemons et al. 1994, Taylor and Burns 1999, Huang and Dubinsky 2013)

Feinberg *et al.* (2002), plotted the E-CRM elements of retail websites in the post-sale, sale and pre-sale phases in exploring the relationship among satisfaction and E-CRM. Sterne (1996), has pointed out three general areas for internet-based CRM: post-sale support, e-commerce services and pre-sale information (product and corporate). Moreover, in order to study the association between general satisfaction and E-CRM elements at two phases of the consumer lifecycle (retention and attraction), Khalifa and Shen (2009) employed the transaction cycle framework.

2.3 E-CRM, Customer Satisfaction, and Customer Loyalty

In past, business organizations have invested heavily on products and their business strategies were based on products designing, pricing, distribution, but currently marketing strategies of the firms made a rapid shift and businesses focuses on customers.

Disney (1999) reported that “as organizations become increasingly customer focused and driven by customer demands; the need to meet customers’ expectation and retain their loyalty becomes more critical”. Kelley *et al.* (2003) defined E-CRM as “the marketing activities, tools and techniques delivered via the internet which includes emails, www, chat rooms e-forums, and etc., with an aim to locate, build and improve long term customer relationship to enhance their individual potential.” In addition E-CRM also utilizes other e-technologies which include mobile

telephony, customer call and contact centers and voice response systems.

Many authors (Reichheld and Schefter 2000, Galbreath 2002, Yang and Peterson 2004, Anderson and Mittal 2000) empirically found that the ultimate aim of E-CRM is to gain consumer loyalty, leading to repeat purchases and increased profitability. The long-term relationship provides many potential benefits for many service companies in various industries, especially in the hotel industry. According to Alhaiouet *al.* (2009), the major benefits that can be obtained by companies through E-CRM implementation are; to make the most of the value of E-CRM with client and to improve consumer retention. Cheng and Bing (2002), believed that it is very difficult decision for customers to purchase online when they face a variety of product information. It is because the customers need to study first about the services or products before purchase it. Thus, the company needs to make sure that their touch point (pre-purchase stage components) put clear information about their services or products and able to make their clients, a loyal customer (Ismail and Hussin 2013).

Alhaiouet *al.* (2009), conducted a study focusing on E-CRM for online mobile customers based on the transaction cycle. The study examined the effect of E-CRM features on loyalty. The results exhibited that all elements of pre-purchase E-CRM have positive influence on loyalty. Ismail and Hussin (2013), focused on the E-CRM features in the context of airlines e-ticket purchasing. They added trust as a variable, which may impact on the customer satisfaction and loyalty. They found that the level of satisfaction effects on the relationship between pre-purchase component of E-CRM and loyalty. Many previous studies (Reichheld and Schefter 2000, Galbreath 2002, Yang and Peterson 2004, Anderson and Mittal 2000) found that the customer loyalty is considered one of the major consequences of E-CRM. Thus, the long-term relationship between firm and customer provides potential benefits to many service companies in various industries (Azila and Noor 2011).

At-purchase dimensions of E-CRM support activities like placing orders, product selection, payment and other (Ismail and Hussin 2013). These activities are actually to maintain the satisfaction and loyalty of customers’ perspective. The security and privacy is an important factor that was highlighted by Ross (2005) because it was found that this element would affect customer decisions to purchase service/product or not. At -purchase E-CRM features, normally customers already make a decision and choice, before proceeding to the next level with the transaction (Ismail and Hussin 2013). Alhaiouet *al.* (2009), investigated the effect of E-CRM on loyalty. The results of this research revealed that there was a positive and significant relationship between at-purchase E-CRM features and customer loyalty.



Post-purchase is the last stage of E-CRM in the transaction cycle. According to Ross (2005), the important element to ensure the success of the company in this phase is customer service, because they bring together all the feedback from customers and know the level of customer satisfaction using their services. In this stage of transaction cycle, positive customer experience can be found after making purchases. This is very important because it can lead to company's success (Ismail and Hussin 2013). Alhaiouet *al.*(2009), studied the effect three components of E-CRM on customer loyalty directly and through customer satisfaction. The results showed post-purchase element of E-CRM has positive effect of loyalty through customer satisfaction.

2.4 Review of Selective Studies

(Lee-Kelley, Gilbert et al. 2003) in their study tried to examine their objective of the study as "if the utilization of information gleaned from customers' online interactions to deploy targeted, personalized relationship tools (E-CRM) will lead to loyalty online (e-loyalty)". 11 e-retailers were selected for the aim of this study who was selling games, books, DVDs, and CDs through internet. To conduct the study a quantitative method was taken through distributing two questionnaires which were developed based on the study of (Too, Souchon et al. 2001). The first questionnaire with 13 items was designed to measure E-CRM effort applied by 11 e-retailers and the second questionnaire with 13 items developed to obtain the perception of E-CRM received through the expression of the customer sensitivity to price change and the remaining of loyal customer of each of the 11 e-retailers. The 1093 completed questionnaires were obtained through e-mail and SPSS as a software program used to analyze the data. According to (Lee-Kelley, Gilbert et al. 2003), the results of their study showed that the effort of E-CRM implementation related to the perceived degree of E-CRM received also, perceived E-CRM linked to the customer loyalty. Thus, this study has shown that E-CRM directly enable improve customer loyalty who were the internet customers. Further, the outcomes revealed that although there was an indirect relationship between E-CRM implemented and decreasing impacts on price sensitivity among customers however this link was weak (Lee-Kelley, Gilbert et al. 2003).

(Farhadi, Ghartemani et al.)in 2012 conducted a study in order to determining the effect of E-CRM on customer loyalty in ParsmodirKhazar Enterprise. A quantitative approach based on descriptive-measuring method was employed to carry out the study. In order to collect the data, two methods were used including: library method and field method. Library methods included studying books, researches, journals, papers, and internet based informational banks. Field method was based on distributing questionnaires. (Farhadi, Ghartemani et al.) used two researcher-made questionnaires. The first one was about E-CRM with 9 questions and the second one was about

customer loyalty with 16 questions. The questionnaires were planned on four measures involving: customer satisfaction, legal undertaking, reliability, and empathy. Also, to analyze the data, correlation and regression method were used through SPSS software. The finding of this research confirmed the relationship between E-CRM and customer satisfaction, E-CRM and legal undertaking, E-CRM and reliability, and E-CRM and empathy. Finally, the outcomes illustrated that implementation of E-CRM had a statistically meaningful and positive relationship with customer loyalty in ParsmodirKhazar.

(Khaligh, Miremadi et al. 2012) conducted a study with the purpose of determining the effect of E-CRM on customer loyalty and retention in the Iranian telecommunication sector. The research problem in the study is referred to customer loyalty and customer retention in the Iranian telecommunication sector involving Hamrah-e Avval, Irancell, and Taliya. It can be asserted that customer loyalty and customer retention are the dependent variables in the research model and E-CRM is an independent variable. (Khaligh, Miremadi et al. 2012) took quantitative approach and gathered 200 complete questionnaires from respondents who were users of mentioned operators in telecommunication sector in Iran. After data collection, during April, May, and July 2011; in order to achieve the findings of the study, (Khaligh, Miremadi et al. 2012) utilized SPSS software and run set of statistical tests such as reliability tests, descriptive statistics, correlation tests, multiple regression and ANOVA. Another point to take into consideration is that (Khaligh, Miremadi et al. 2012) developed research hypotheses according to the in-depth review of related literature and developed research model within their study. The formulated hypotheses by (Khaligh, Miremadi et al. 2012) are as follows which are in line with the purpose of their study which is identifying the impact of E-CRM on customer loyalty and retention in the Iranian telecommunication sector mainly three stated operators. Below are the two major formulated hypotheses by (Khaligh, Miremadi et al. 2012):

H1) There is an association between Applicability of E-CRM and loyalty of customers in telecommunication industry.(Khaligh, Miremadi et al. 2012)

H2) There is an association between Applicability of E-CRM and retention of customers in telecommunication industry.(Khaligh, Miremadi et al. 2012)

After data processing, findings of the research supported the hypotheses. This study brought helpful insights for the manager of Iranian telecommunication sector to implement the E-CRM in the best shape and match it with Iranian culture to create more loyalty and retention.(Khaligh, Miremadi et al. 2012).

(Ismail and Hussin 2013)examined the effect of E-CRM on customers' satisfaction and loyalty. This study examined the



effect of E-CRM on customer loyalty at the different phases of online transaction, which are pre-purchase, at-purchase and post-purchase in one of airlines e-ticketing websites in Malaysia. The proposed model was derived from earlier models but it is enhanced by including a new element of trust as the antecedent to customers' loyalty. The results indicated that three components of E-CRM (pre-purchase, at-purchase and post-purchase) have positive effect on customer satisfaction. Moreover, the results designated that customer satisfaction has a positive effect on customer loyalty. Furthermore, the results confirmed that trust has a positive effect on customer satisfaction and loyalty. Nevertheless, the study did not provide any scholarly evidence on the direct effect of E-CRM on customer loyalty and also the mediating role of customer satisfaction on the relationship between E-CRM and customer loyalty.

In another study, (Khan and Khawaja 2013) revealed the relationship of E-CRM, customer satisfaction and customer loyalty. Moreover, they considered anxiety as a moderating variable in their study. The purpose of this study was to evaluate service provided by using E-CRM in a mobile company by the customer relationship officer and web portal. A quantitative approach was taken to conduct the study by the authors and a valid item scale developed by previous researchers was applied by the authors as following: E-CRM adopted from (Lee-Kelley, Gilbert et al. 2003), customer satisfaction adopted from (Vickery and Vickery 2004), customer loyalty adopted from (Vickery and Vickery 2004), and computer anxiety adopted from (Venkatesh and Bala 2008). The questionnaires were distributed among the employees who used mobile phone service in 6 public and private selected organizations in Pakistan. The results were obtained from 250 collected questionnaires. The findings indicated that E-CRM had a positive impact on customer satisfaction. In addition, the moderating effect of anxiety on the relationship between E-CRM and customer satisfaction was depicted although the level of anxiety was low (Khan and Khawaja 2013).

In the research by (SaphyeAlim & Wilson Ozuem, 2014) remaining loyal customer to the brand was considered. Since Vodafone was one of the major service providers in UK (SaphyeAlim & Wilson Ozuem, 2014) so, they used Vodafone as a case study. Their study aimed to examine the effects of E-CRM on customer loyalty in mobile industry in UK. The outcomes were derived from reviewing previous studies and by focusing on Vodafone as the case study. The outcomes showed that dissatisfied customers do not hesitate to switch to competitors. Furthermore, they deduced the link between E-CRM and customer satisfaction and customer loyalty (SaphyeAlim & Wilson Ozuem, 2014).

A study by (Mousavai 2015) carried out to show the impact of E-CRM on customer loyalty. This study was conducted among the four and five stars hotels in Kuala Lumpur in Malaysia. The purpose of the study was to examine the

effect of E-CRM on customer loyalty through customer satisfaction by moderating role of hotel ambience (Mousavai 2015). They used Stimulus-Organism-Response (S-O-R) Model introduced by (Mehrabian and Russell 1974) to develop their theoretical framework. In order to examine the relationship between variables a quantitative approach with a cross-sectional survey method was applied. A self-administrated questionnaire was used in this study by using 7 point Likert scale. The overall scale items in this study were 50 items including 30 items for E-CRM divided into three parts: pre-purchase, at-purchase, and post-purchase; 6 items of customer satisfaction (Yi 1990); 6 items of customer loyalty (Zeithaml, Berry et al. 1996, Ndubisi 2003); and 6 items for hotel ambience (Jani and Han 2014). Also, pre-purchase items divided into three dimensions involving: 5 items for website design (Wang and Liao 2007, Liu, He et al. 2008, Alhaiou 2011), 4 items for search capabilities (Flavián, Guinaliu et al. 2005, Wang and Liao 2007, Liu, He et al. 2008, Alhaiou 2011), and 4 items for loyalty program (Bhattacharjee 2001, Khalifa and Shen 2009, Alhaiou 2011); at-purchase items divided into three dimensions involving: 4 items for security/privacy (Kim, Ferrin et al. 2008, Liu, He et al. 2008), 3 items for payment method (Wang and Liao 2007, Liu, He et al. 2008), and 4 items for booking process (Posselt and Gerstner 2005, Liu, He et al. 2008); and post-purchase items divided into 2 dimensions including: 4 items of manage my booking (Posselt and Gerstner 2005, Liu, He et al. 2008), and 4 items of customer service (Wang and Liao 2007). They used SPSS version 22 to analyze the preliminary data and display descriptive analysis involving: means, frequencies, and standard deviation. Also, structural equation modeling (SEM) technique by using the software of partial test squares (PLS) was used by (Mousavai 2015). From 384 distributed questionnaires among the guests of the four and five stars hotels the overall corrected response was 276. The findings showed a significant and direct relationship between E-CRM and customer satisfaction ($\beta = 0.335$, $t = 7.760$). Moreover, the findings revealed a significant and positive relationship between customer satisfaction and customer loyalty ($\beta = 0.790$, $t = 27.133$). Furthermore, the mediating role of customer satisfaction between the relationship of E-CRM and customer loyalty has been proved by the results of the study. Therefore, E-CRM had a positive impact on loyalty through the mediating effect of customer satisfaction. As an important point, the findings confirmed this point that the relationship between E-CRM and customer satisfaction and also the relationship between customer satisfaction and customer loyalty had been moderated by the moderating role of hotel ambience (Mousavai 2015).

For further clarification of reviewed studies in this section of current review article, table 1 represents summarized information related to reviewed studies.



Table 1: Summary of Information Relevant to Reviewed Studies

NO	Author(s)/Date/ Country	Service Industry	Research Problem	Research Model	Research Method	Research Results
1	(Lee-Kelley, Gilbert et al. 2003)/UK	UK e-retailers	Customer loyalty as dependent variable in UK e-retailers.	e-retailer, E-CRM effort and customer perceived E-CRM as independent variables Customer loyalty and price sensitivity as dependent variables	Quantitative approach	E-CRM implementation related to the perceived degree of E-CRM received also, perceived E-CRM linked to the customer loyalty
2	(Farhadi, Ghartemani et al.)/2012/Iran	ParsmodirK hazar Enterprise	Customer loyalty as dependent variable	E-CRM as independent variable and Customer loyalty as dependent variable	quantitative approach	The meaningful and positive relationship between E-CRM and customer loyalty
3	(Khaligh, Miremadi et al. 2012)/Iran	Iranian Telecommunication Sector	Customer loyalty and retention as dependent variables	E-CRM, Customer loyalty and retention	Quantitative approach distribution of 200 questionnaires among users of three operators namely Hamrah-e Avval, Irancell, and Taliya	Supporting association between Applicability of E-CRM and loyalty and retention of customers
4	(Ismail and Hussin 2013)/Malaysia	One of airlines e-ticketing websites in Malaysia	Customer loyalty as dependent variable	As illustrated in figure of review of related article	Conceptual Framework, quantitative approach	As stated in review of article earlier
5	(Khan and Khawaja 2013)/Pakistan	Mobile Companies	Customer loyalty as dependent variable Mobile Companies	E-CRM as independent variable Customer satisfaction as mediating variable Customer Loyalty as dependent variable and Anxiety as moderating variable	a quantitative approach	E-CRM had a positive impact on customer satisfaction the moderating effect of anxiety on the relationship between E-CRM and customer satisfaction was depicted
6	(SaphyeAlim & Wilson Ozuem, 2014)/UK	UK Mobile Industry (case of Vodafone)	Customer loyalty as dependent variable	E-CRM, customer satisfaction, and customer loyalty	Case study/ In-depth review of relevant literature	The link between E-CRM and customer satisfaction and customer loyalty
7	(Mousavai 2015)/Malaysia	Four and five-star hotels in Kuala Lumpur	Customer loyalty as dependent variable four and five-star hotels in Kuala Lumpur	E-CRM as independent variable Customer loyalty as dependent variable And Hotel ambience as moderating variable	a quantitative approach with a cross-sectional survey method using a self-administrated questionnaire	the findings revealed a significant and direct relationship between E-CRM and customer satisfaction a significant and positive relationship between customer satisfaction and customer loyalty E-CRM had a positive impact on loyalty through the mediating effect of customer satisfaction the relationship between E-CRM and customer satisfaction and also the relationship between customer satisfaction and customer loyalty had been moderated by the moderating role of hotel ambience



3. SOURCES OF DATA

As the nature of research on E-CRM and its impact on customer satisfaction and loyalty is difficult to confine to specific disciplines, the relevant materials are scattered across various journals. Services Marketing, Consumer Behavior, Business and Management, Scientific Information, Business Research, Communications, Service Research, Information Systems, Behavior & Information Technology, Consumer Research, and Marketing Studies, are some common academic disciplines for current research. Consequently, the following online journal databases were searched to provide a comprehensive bibliography of the academic literature for this scientific review article:

- Academic Search Premier;
- Business Source Premier;
- Emerald Full text and Emerald insight;
- Taylor & Francis;
- Sage Publication;
- EBSCO;
- Web of Knowledge and Google Scholar;
- ProQuest (USA Thesis);
- Directory of Open Access Journals (DOAJ);
- The Excellence in Research for Australia (ERA);
- Wiley Online Library;
- Australian Business Dean Council (ABDC);
- Cabell's Directory;
- Ulrich's;
- Gale's Academic Databases;
- Standard Periodical Directory;
- Universe Digital Library;
- National Library of Australia;

4. Conclusion

This review article was an in-depth review in literature in order to represent relationship among E-CRM with customer satisfaction and customer loyalty or in other sentence, forrepresenting determination of E-CRM on customer satisfaction and customer loyalty which is the aim of E-CRM in modern marketing. By reviewing the related literature as mentioned earlier in this scientific review article, there are some points to take into consideration which are: firstly, CRM is more evolution than revolution and E-CRM is for gaining customer loyalty in modern

marketing. Secondly, managers should adapt E-CRM to their businesses especially service industries in order to create and increase customer loyalty and gaining more profitability, revenue and ROI. Thirdly, according to the review of previous studies; results of studies conducted by previous scholars support that E-CRM has positive and significant determination on customer satisfaction and customer loyalty and the findings of previous researches are consistent and synchronized. Fourthly, it is notable to mention that moderators such as ambience and computer anxiety can strengthen or weaken the relationship among E-CRM, customer satisfaction and customer loyalty. Fifthly, as indicated in previous studies; the role of trust as a variable can have determination in strengthening relationship among E-CRM, customer satisfaction, and customer loyalty.

4.1 Academic Benefits and Recommendations for Scholars

This review article will be really beneficial for those individuals and academics who are concerned about relationship among E-CRM, customer satisfaction and customer loyalty. Because current scientific review article contributes to them and provide adequate literature in this research era and directing them into conducting confirmatory or exploratory studies with sound methodological foundation such as structural equation modeling (SEM) and data processing through Analysis of Moment Structure (AMOS) program or even OpenMx software which is used for advanced SEM.

References

- Ab Hamid, N. R. (2008). "Consumers' Behaviour Towards Internet Technology and Internet Marketing Tools." International Journal of Communications2(3): 195-204.
- Ab Hamid, N. R., et al. (2010). "Evaluating the adoption level of electronic customer relationship management by telecommunication companies." WSEAS Transactions on Systems9(2): 115-124.
- Ab Hamid, N. R., et al. (2011). "Dimensions of E-CRM: An Empirical Study on Hotels' Web Sites." Journal of Southeast Asian Research2(11): 1-15.
- Alhaiou, T., et al. (2009). "The relationship between ecrm implementation and eoyalty at different adoption stages of transaction cycle: A conceptual framework and hypothesis."
- Alhaiou, T. A. (2011). A study on the relationship between E-CRM features and e-loyalty: The case in UK, Brunel University Brunel Business School PhD Theses.



Alhaiou, T. A. (2011). "A study on the relationship between E-CRM features and e-loyalty: The case in UK."

Almir, P. and L. Andela (2012). "Impact of Electronic Customer Relationship Management (e-CRM) on Efficiency of Rent-a-Car Sector in Bosnia and Herzegovina." Economic Analysis (0013-3213)**45**.

Anderson, E. W. and V. Mittal (2000). "Strengthening the satisfaction - profit chain" Journal of Service Research **3** (2), 107

Anderson, R. E. and S. C. E.-s. Srinivasan (2003). "satisfaction and e-loyalty: a contingency framework." Psychology and Marketing(20 (2): 123-38).

Asadi, S., et al. (2013). "The Literature Review on Customer Relationship Management Based on Software as a Service."

Azila, N. and M. Noor (2011). "Electronic customer relationship management performance: Its impact on loyalty from customers' perspectives." International Journal of e-Education, e-Business, e-Management and e-Learning**1**(2).

Ballou, R. H. (2007). "The evolution and future of logistics and supply chain management." European Business Review**19**(4): 332-348.

Behravan, N. and M. Rahman (2012). "Customer Relationship Management Constructs under Social Networks towards Customers' Retention." Australian Journal of Basic and Applied Sciences**6**(7): 271-282.

Bergeron, B. (2004). Essentials of CRM: A guide to customer relationship management, John Wiley & Sons.

Bhattacharjee, A. (2001). "An empirical analysis of the antecedents of electronic commerce service continuance." Decision support systems**32**(2): 201-214.

Bose, R. (2002). "Customer relationship management: key components for IT success." industrial management & data systems**102**(2): 89-97.

Boulding, W., et al. (2005). "A customer relationship management roadmap: what is known, potential pitfalls, and where to go." Journal of marketing: 155-166.

Buttle, F. (2004). Customer Relationship Management: concepts and tools, Elsevier Butterworth, Heinemann, Oxford.

Chandra, S. and T. J. Strickland (2004). "Technological differences between CRM and eCRM." Issues in Information Systems**5**(2): 408-413.

Chang, C.-K. (2010). "Acceptability of an asynchronous learning forum on mobile devices." Behaviour & Information Technology**29**(1): 23-33.

Cheng, A. Y., et al. (2011). Risk perception of the E-payment systems: a young adult perspective. Proceedings of the 10th WSEAS international conference on Artificial intelligence, knowledge engineering and data bases, World Scientific and Engineering Academy and Society (WSEAS).

Cheng, C. B. and L. Bing (2002). "Analyzing the Functional Frame of eCRM based on Customer Value." The Second International Conference on Electronic Business 2002: pp.1-4.

Disney, J. (1999). "Customer satisfaction and Loyalty: the critical elements of service quality." Total Quality Management**10**(4/5): 491-497.

Dyche, J. (2001). "The CRM Handbook: A Business Guide to Customer Relationship Management." Addison-Wesley, Boston, MA.

Etzion, O., et al. (2005). "A modeling approach for customer lifetime evaluation in e-commerce domains, with an application and case study for online auction ." Information Systems Frontiers**7**: 421-434.

Farhadi, F., et al. "Analyzing the Effects of e-CRM on customers Loyalty: A case study of Parsmodir Khazar Enterprise."

Feinberg, R., et al. (2002). "E-CRM Web service attributes as determinants of customer satisfaction with retail Web sites." International Journal of Service Industry Management**13**(5): 432-451.

Feinberg, R., et al. (2002). "The State of Electronic Customer Relationship Management in Retailing." International Journal of Retail & Distribution Management **30**(10)pp. 470 - 481.

Fjermestad, J. and N. C. Romano (2003). "Electronic customer relationship management: revisiting the general principles of usability and resistance—an integrative implementation framework." Business Process Management Journal**9**(5): 572-591.

Flavián, C., et al. (2005). "The influence of corporate image on consumer trust: A comparative analysis in traditional versus internet banking." Internet Research**15**(4): 447-470.

Galbreath, J. (2002). "Success in the relationship age: building quality relationship assets for market value creation." The TQM magazine**14**(1): 8-24.



Gardial, S. F., et al. (1994). "Comparing consumers' recall of prepurchase and postpurchase product evaluation experiences." Journal of Consumer Research: 548-560.

Garrido-Moreno, A. and A. Padilla-Meléndez (2011). "Analyzing the impact of knowledge management on CRM success: The mediating effects of organizational factors." International Journal of Information Management**31**(5): 437-444.

Gordon, M. E. and K. De Lima-Turner (1997). "Consumer attitudes towards Internet advertising: A social contract perspective." International Marketing Review**14**(5): 362-375.

Gounaris, S., et al. (2010). "An examination of the effects of service quality and satisfaction on customers' behavioral intentions in e-shopping." Journal of Services Marketing**24**(2): 142-156.

Greenberg, P. (2002). CRM Customer Relationship Management, Apogeo.

Haque, A., et al. (2011). "Identifying potentiality online sales in Malaysia: a study on customer relationships online shopping." Journal of Applied Business Research (JABR)**22**(4).

Huang, W. and A. Dubinsky (2013). "Measuring customer pre-purchase satisfaction in a retail setting." The Service Industries Journal(ahead-of-print): 1-18.

Ismail, N. A. and H. Hussin (2013). E-CRM features in the context of airlines e-ticket purchasing: A conceptual framework. Information and Communication Technology for the Muslim World (ICT4M), 2013 5th International Conference on, IEEE.

Jani, D. and H. Han (2014). "Personality, satisfaction, image, ambience, and loyalty: Testing their relationships in the hotel industry." International Journal of Hospitality Management**37**: 11-20.

Jutla, D., et al. (2001). "Enabling and Measuring Electronic Customer Relationship." Conference on System Sciences Management Readiness, Proceedings of the 34th Hawaii International.

Kelley, L., et al. (2003). "How e-crm can enhance customer loyalty." Marketing Intelligence and Planning**21**(4).

Khalifa, M. and K. N. Shen (2009). "Modelling electronic customer relationship management success: functional and temporal considerations." Behaviour & Information Technology**28**(4): 373-387.

Khalifa, M. and N. Shen (2005). Effects of electronic customer relationship management on customer satisfaction: A temporal model. System Sciences, 2005. HICSS'05. Proceedings of the 38th Annual Hawaii International Conference on, IEEE.

Khalifa, S., et al. (2002). Structural joins: A primitive for efficient XML query pattern matching. Data Engineering, 2002. Proceedings. 18th International Conference on, IEEE.

Khaligh, A. A., et al. (2012). "The impact of eCRM on loyalty and retention of customers in Iranian telecommunication sector." International Journal of Business and Management**7**(2): 150.

Khan, M. B. and K. F. Khawaja (2013). "The Relationship of E-CRM, Customer Satisfaction and Customer Loyalty. The Moderating Role of Anxiety." Middle-East Journal of Scientific Research**16**(4): 531-535.

Khatibi, A. A., et al. (2002). "What drives customer loyalty: An analysis from the telecommunications industry." Journal of Targeting, Measurement and Analysis for Marketing**11**(1): 34-44.

Kim, D. J., et al. (2008). "A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents." Decision support systems**44**(2): 544-564.

Kincaid, J. W. (2003). Customer relationship management: getting it right!, Pearson Education India.

King, S. F. and T. F. Burgess (2008). "Understanding success and failure in customer relationship management." Industrial Marketing Management**37**(4): 421-431.

Kumar, K. J. S. and P. Vikkraman (2011). "A Study on Relationship Gap between Investors and Share Brokers." Research Journal of Finance and Accounting**2**(4): 33-48.

Lee-Kelley, L., et al. (2003). "How e-CRM can enhance customer loyalty." Marketing Intelligence & Planning**21**(4): 239-248.

Lee, G.-G. and H.-F. Lin (2005). "Customer perceptions of e-service quality in online shopping." International Journal of Retail & Distribution Management**33**(2): 161-176.

Lin, H.-F. (2008). "Predicting consumer intentions to shop online: An empirical test of competing theories." Electronic Commerce Research and Applications**6**(4): 433-442.

Liu, C. and K. P. Arnett (2000). "Exploring the factors associated with Web site success in the context of electronic commerce." Information & Management**38**(1): 23-33.



Liu, X., et al. (2008). "An empirical study of online shopping customer satisfaction in China: a holistic perspective." International Journal of Retail & Distribution Management**36**(11): 919-940.

Lu, J. (2003). "A model for evaluating e-commerce based on cost/benefit and customer satisfaction." Information Systems Frontiers**5**(3): 265-277.

Maroofi, F., et al. (2012). "Effects of e-CRM on Customer-Bank Relationship Quality and Results." International Journal of Academic Research in Accounting, Finance and Management Sciences**2**(3): 164-182.

Mehrabian, A. and J. A. Russell (1974). An approach to environmental psychology, the MIT Press.

Mousavai, S. B. (2015). "Enhancing Gust's Loyalty in Luxury Hotel through Hotel's Ambience." International Journal of engineering Research and Applications**1**(5): 125-138.

Mousavai, S. B., et al. "Enhancing Gust's Loyalty in Luxury Hotel through Hotel's Ambience." International Journal of engineering Research and Applications**1**(5): 125-138.

Ndubisi, N. (2003). Can current customer loyalty predict future loyalty? the 5th Asian Academy of Management Conference-Challenges of Globalized Business: The Asian Perspective.

Ngai, E. W., et al. (2009). "Application of data mining techniques in customer relationship management: A literature review and classification." Expert Systems with Applications**36**(2): 2592-2602.

Nguyen, B. and D. S. Mutum (2012). "A review of customer relationship management: successes, advances, pitfalls and futures." Business Process Management Journal**18**(3): 400-419.

Nguyen, T. H., et al. (2007). "Strategies for successful CRM implementation." Information Management & Computer Security**15**(2): 102-115.

Osarenkhoe, A. and A.-E. Bennani (2007). "An exploratory study of implementation of customer relationship management strategy." Business Process Management Journal**13**(1): 139-164.

Peppers, D. and M. Rogers (1996). "One-to-one media in the interactive future." Interactive Marketing**1**.

Plakoyiannaki, E. and N. Tzokas (2002). "Customer relationship management: a capabilities portfolio perspective." Journal of Database Marketing**9**(3): 228-237.

Posselt, T. and E. Gerstner (2005). "Pre-sale vs. Post-sale e-satisfaction: Impact on repurchase intention and overall satisfaction." Journal of Interactive Marketing**19**(4): 35-47.

Purba, S. (2001). Architectures for e-business systems: building the foundation for tomorrow's success, CRC Press.

Rababah, K., et al. (2011). "Customer Relationship Management (CRM) Process from Theory to Practice: The Preimplementation Plan of CRM System." International Journal of e-Education, e-Business, e-management and e-learning**1**(1).

Reichheld, F. F. and P. Schefter (2000). "E-loyalty." Harvard business review**78**(4): 105-113.

Reimann, M., et al. (2010). "Customer relationship management and firm performance: the mediating role of business strategy." Journal of the academy of marketing science**38**(3): 326-346.

Richards, K. A. and E. Jones (2008). "Customer relationship management: Finding value drivers." Industrial Marketing Management**37**(2): 120-130.

Rigby, et al. (2002). "A voiding the four perils of CRM. ." Harvard Business Review, (80 (2)): 101 – 109.

Rogers, M. (2005). "Customer strategy: observations from the trenches." Journal of marketing**69**(4): 262-263.

Romano, N. C. and J. Fjermestad (2001). "Customer relationship management research: An assessment of research." International Journal of Electronic Commerce, (6, 59-111).

Romano, N. C. and J. Fjermestad (2003). "Electronic commerce customer relationship management: a research agenda." Information Technology and Management**4**(2-3): 233-258.

Rosen, K. (2001). "Five myths of CRM". Computerworld, available at: www.computerworld.com/softwaretopics/crm/story/0,108,01,60972,00.html (accessed 31 May).

Ross, D. F. (2005). "E-CRM from a supply chain management perspective." Information systems management**22**(1): 37-44.

Rowley, J. (2006). "An analysis of the e-service literature: towards a research agenda." Internet Research**16**(3): 339-359.

Saphye Alim & Wilson Ozuem, 2014, the Influences of E-CRM on Customer Satisfaction and Loyalty in the UK



Mobile Industry, Journal of Applied Business and Finance Researches; Volume 3, Issue 2: 47-54 (2014)

Scullin, S., et al. (2002). Electronic customer relationship management: benefits, considerations, pitfalls and trends. Proceedings of the IS One World Conference, Las Vegas, Nevada, Citeseer.

Shih, Y.-Y. and K. Fang (2004). "The use of a decomposed theory of planned behavior to study Internet banking in Taiwan." Internet Research**14**(3): 213-223.

Shim, B., et al. (2012). "CRM strategies for a small-sized online shopping mall based on association rules and sequential patterns." Expert Systems with Applications**39**(9): 7736-7742.

Solomon, M. R., et al. (2004). Consumer behavior, Prentice Hall Englewood Cliffs.

Sophonthummapharn, K. (2008). A comprehensive framework for the adoption of techno-relationship innovations: Empirical evidence from eCRM in manufacturing SMEs, Umeå University.

Sterne, J. (1996). "Customer service on the Internet." New York: John Wiley and Sons.

Taylor, K. A. and M. J. Burns (1999). "Changes in pre-and post-purchase evaluative criteria: Exploring the impact on consumer (dis) satisfaction." Journal of Consumer Satisfaction Dissatisfaction and Complaining Behavior**12**: 90-99.

Too, L. H., et al. (2001). "Relationship marketing and customer loyalty in a retail setting: a dyadic exploration." Journal of Marketing Management**17**(3-4): 287-319.

Udo, G. J., et al. (2010). "An assessment of customers' e-service quality perception, satisfaction and intention." International Journal of Information Management**30**(6): 481-492.

Venkatesh, V. and H. Bala (2008). "Technology acceptance model 3 and a research agenda on interventions." Decision sciences**39**(2): 273-315.

Vickery, A. and B. C. Vickery (2004). Information science in theory and practice, Walter de Gruyter.

Victor, J. and Z. Eugen (2011). "Classification, Features and Benefits of CRM Cloud Computing-Based Systems." Ovidius University Annals, Economic Sciences Series**11**(2): 664-669.

Wang, Y.-S. and Y.-W. Liao (2007). "The conceptualization and measurement of m-commerce user satisfaction." Computers in human behavior**23**(1): 381-398.

Wixom, B. H. and P. A. Todd (2005). "A theoretical integration of user satisfaction and technology acceptance." Information systems research**16**(1): 85-102.

Yang, Z. and R. T. Peterson (2004). "Customer perceived value, satisfaction, and loyalty: the role of switching costs." Psychology & Marketing**21**(10): 799-822.

Yi, Y. (1990). A Critical Review of Consumer Satisfaction. Review of Marketing, 4 (1): 68-123.

Zakaria, N. H. and N. Mohammadhossein (2012). "CRM benefits for customers: literature review (2005-2012)." International Journal of Engineering Research and Applications**2**(6): 1578-1586.

Zeithaml, V. A., et al. (1996). "The behavioral consequences of service quality." the Journal of Marketing: 31-46.