Electronic Customer Relationship Management (E-CRM) and Customer Loyalty:
The Mediating Role of Customer Satisfaction in the Banking Industry

Pushpender Kumar, Kirori Mal College, University of Delhi, India

Anupreet Kaur Mokha, Department of Commerce, Delhi School of Economics, University of Delhi, India*

https://orcid.org/0000-0003-0822-2807

ABSTRACT

This study examined the impact of E-CRM on customer loyalty with the mediating effect of customer satisfaction in the banking industry. Customer satisfaction is important for loyalty because when the customers are satisfied with the services offered by their service providers, the relationship gets stronger, which further leads to positive word-of-mouth. The data was collected using purposive sampling from 836 bank customers who were using E-CRM services, and the data was analyzed using structural equation model (SEM) through AMOS. The results revealed that E-CRM and customer satisfaction had a significant positive impact on customer loyalty, and also customer satisfaction partially mediated the relationship between E-CRM and customer loyalty. This study would offer useful acumen to both academicians and marketers and would help the bank managers to improve the quality of the services provided to their customers.

KEYWORDS

INTRODUCTION

The continuous and rapid advancement in Information and Communication Technologies (ICTs) has changed the operations and services provided by the banking sector (Dhingra & Dhingra, 2013). Based on its vital importance in the financial sector, the banking industry has been the cynosure of academicians and policy makers alike in the modern times. The banking sector has been one of the biggest victims of the ICTs developments. The changes fueled by rapid transformation in technology and adaption by customers followed by higher internet penetration and increased usage of smart phones embedded banks under serious challenges in innumerable ways (Mathew et al., 2020). Steep competition, globalization, growing customer demand and exposure to higher credit risks, have forced banks to offer the best possible service in a prompt and efficient manner so as to retain their customer base and convert them into their loyal supporters (Mang'unyi et al., 2018) and further to improve their profitability (Joju, Vasantha & Manoj, 2016). And the same time, the homogeneity of products have also added to the burden of the banking industry and proved to be an uplifting challenge for

the banks to maintain customer loyalty during such a remarkable transition in technical as well as in consumer behavior (Singh & Chauhan, 2018). The number of complaints lodged by the customers to the Reserve Bank of India (RBI) Ombudsman scheme got increased drastically every year. As per RBI's annual report on Banking Ombudsman Scheme (2019-20), around 21.97% of the complaints filed by the customer were pertaining to ATM and debit card-related issues, 13.38% were related to online banking issues, 11.73% were related to banks not adhering to the 'fair practice code' and whereas 9.30% were related to credit-card related complaints.

The current scenario require banks to monitor prudently the customers' trends, expectations, needs and requirements. Because of ever-changing dynamic consumer tastes and coupled with rapid technological advancements, the banks can no longer completely rely on the conventional ways of satisfying their customers (Abdi, Hamidizadeh & Gharache, 2019). Such constant change in the consumer's behavior due to changing business-technology leads to complexities in customer relationship management (CRM). As the conventional paradigm of banking dwindles, the traditional approach of CRM may not be compatible with the new banking model. CRM is a reactive approach which lacks vividness, hence, needs to be upgraded. The emergence of electronic customer relationship management (E-CRM) is one of such phenomenon. E-CRM, being a proactive approach, is an only solution to the present situation in which the banks can tend to operate (Singh & Chauhan, 2018). E-CRM is defined as managing and building long-lasting mutual relationships with the customers over the internet by using various electronic touch points, emails, websites, etc. Thus, banks are required to boost their economic lines by looking at disparate ways to satisfy their customers and building long-term strong relationships with them through acquisition of new customers and retaining existing customers which can further succor the banks (Kumar, Mokha & Pattnaik, 2021). If a bank gets succeeded in pleasing their current customers, it will not only fascinate potential customers in near future but will also drastically fill up their methodize aura of business processes (Abu-Shanab & Anagreh, 2015; Sharma, 2019). Therefore, the banks should focus on implementing various E-CRM strategies to attract, create and retain prospective customers.

The marketing experts have compelled the companies to have long-term customer loyalty in the service industry. Though, the significance of customer loyalty was underlined in past literature, but still, it is one of the most vital factors for the service industries yet to overcome (Khan et al., 2020). The primary reason why the top management could not able to achieve customer loyalty would be due to high business volatility (Aramburu & Pescador, 2019). The companies are not able to meet and fulfil their customers' demand, expectations and behaviors because of the lack of attraction by the management towards their customers (Herhausen et al., 2019), due to which, many companies tend to lose their old customers and also fails to entice the new customers base. Thus, the need to attract new customers and to retain the existing customers can be achieved by building long-lasting strong customer relationships so as to understand the needs of the customers and to serve them with the best possible services (Al-Dmour et al., 2019; Khanh, Phong & Cao, 2021).

Many studies have been attempted to scrutinize the influence of E-CRM on customer satisfaction (Al-Dmour et al., 2019; Rashwan et al., 2019; Upadhyaya, 2020), customer retention (Al-Dmour et al., 2019; Azila & Noor, 2012), customer loyalty (Al-Shoura et al., 2017; Mang'unyi et al., 2018; Shastri et al., 2020), and financial profitability (Cajestan, 2018; Kaur, 2016, Rastgar et al., 2018) in the developed economies. Despite of the popularity of E-CRM in the marketing studies, still there are a lack of studies on E-CRM in the developing economies (Kaur, 2016; Shastri et al., 2020). Also, the literature warns of transposing the western-designed studies into resource-constraints nations (Farh et al., 2004). "It is important to remember that due to strong influence of the socio-cultural context, applicability of western management and organization theories in the Indian context is questionable" (Budhwar, 2009, p. 295). This might be due to the changes in the organizational practices, internal rules and regulations along with differences in cultural and economic environment, etc. (Khan et al., 2020). Thus, there is a need to study the effectiveness of E-CRM in Indian context as to examine whether the customers are satisfied with the banks' services and are willing to revisit and recommend

their banks to others or not. In this study, we examined the impact of E-CRM on customer loyalty through customer satisfaction as a mediating variable in the context of banking industry. Majority of the previous study revealed that the customer satisfaction mediates the relationship between E-CRM and customer loyalty but still few researchers (Ismail & Hussin, 2016; Rashwan et al., 2019) stated that customer satisfaction has no mediating role to play between E-CRM and customer loyalty. Consequently, it was found pertinent to examine the current status of the mediating role of customer satisfaction between E-CRM and customer loyalty in the banking industry.

THEORETICAL FRAMEWORK

The Stimulus- Organism-Response (S-O-R) Model

This research was based on the S-O-R model of consumer behavior. The S-O-R model was proposed by Mehrabian and Russell (1974) and was later on modified by Jacoby (2002). This model has been extensively used in marketing literature and proved to be an efficient tool for studying the behavior of the customers' in a store environment (Arora, 1982; Donovan & Rossiter 1994; Wakefield & Blodgett 1996). The model explained that environmental characteristics act as a stimulus which impacts the affective and cognitive status of the individuals, thereby leading to certain responses (Donovan & Rossiter, 1982). Stimulus in e-commerce/ e-retail context is defined as "the attributes or characteristics of the e-commerce world" (Yadav & Rahman, 2018). The internal states known as organism includes observations, views or evaluations of the customers towards the stimulus whereas certain responses includes the responses related to the consumer behavior such as purchase decisions, purchase intentions, customer loyalty etc. (Sautter et al., 2004). The S-O-R model has been widely used in the e-commerce context in extant literature. Koo and Ju (2010) adopted S-O-R model to examine the effects of atmospheric cues on the customer's emotional status and their future purchase intentions to shop online. Gao and Bai (2014) also proposed the S-O-R model to investigate the effects of online travel agency on buying intention through customer satisfaction whereas Mousavai et al., (2015) also adopted the S-O-R model to empirically examine the impact of E-CRM on customer loyalty via customer satisfaction. Thus, based on the crucial role of E-CRM and customer satisfaction in context of e-commerce in impacting customer loyalty, the S-O-R model was considered appropriate for the current study.

E-CRM as a Stimulus (S)

In this study, E-CRM was considered as a stimulus as it provides various characteristics such as personalized products/ services, alternative payment methods, etc. E-CRM is defined as "the marketing activities, tools and techniques, delivered over the Internet (using technologies such as websites and e-mail, data-capture, data warehousing and data mining) with a specific aim to locate, build and improve long-term customer relationships to enhance their individual potential" (Lee-Kelley et al., 2003, p. 241). It is described as managing the customer relationships using the internet, web browsers or electronic touch points. Due to the advancement in the ICTs, there was a rapid shift in the business environment (Chuang et al., 2012). CRM is moving to E-CRM to support this requirement (Eltahir et al., 2021; Hendriyani & Raharja, 2018). E-CRM is nothing but managing the long-term relationship with their customers using both traditional and web technologies (Al-Dmour et al., 2019). It provides effective, interactive and relevant communication with customers across electronic platforms (Kampani & Jhamb, 2020). It allowed the organizations to attract new customers, evaluate their customers' actions and desires and offer them personalized products and services (Kampani & Jhamb, 2020; Rashwan et al., 2019). Hence, the current study examined E-CRM as an environmental stimulus in influencing customer loyalty through customer satisfaction.

Customer Satisfaction as an Organism (O)

Chang and Chen (2008) stated that "the organism (inner state) is represented by cognitive and affective intermediary states and processes that mediate the relationships between the stimulus and an individual's responses". In this study, customer satisfaction was considered as an organism as it portrays the affective and cognitive status of the individuals by observing and evaluating the stimuli (Palaci et al., 2019). Customer satisfaction is considered as one of the most significant feature of any organization's success in this highly competitive environment. Oliver (2010) defined customer satisfaction as "consumer's fulfillment response. It is a judgment/assessment that a product/service features, or the product or service itself, provides a pleasurable level of consumption-related fulfillment". Kotler & Kotler (2016) defined customer satisfaction as a "person's pleasure or delight by comparing his expectations with the products, results and expected efficiency". Thus, customer satisfaction implies the trade-off between what the customer expects and receives from the products / services. Further, more the gap between the two, more would be customer satisfaction (Mulyono & Situmorang, 2018). There is a serious rivalry in the market to attract the customers. Consequently, the worldwide pioneers can't think contending in the market, just alone with the price factor. They understood that the consumer satisfaction is the most significant factor for the business success since the customer is the heart of any business (Otto et al., 2020). Hence, it is considered to be one of the most important tool for augmenting the relationship with the customers.

Customer Loyalty as Customers' Response (R)

The S-O-R model stated that the behavioral responses arise after being subjected to stimulus and creation of the consumer's internal organism. This study considered customer loyalty as a response. Customer loyalty is defined as "the measure of achievement of the supplier in retaining a long-term relationship with their customers" (Oumar et al., 2017). Oliver (1999) defined customer loyalty as "a sincere commitment towards buying the same brand of product or service repeatedly in the future, despite situational factors and marketing efforts which may have the potential to trigger the switching behavior". Customer loyalty is the point at which a supplier receives a distinctive reward of his endeavors in collaborating with its customer. Building customer loyalty is the most important goal of relationship marketing activities. It is all about quality customer support, convenient and reasonably priced shipping and handling, on time delivery, clear, trustworthy privacy policies, and compelling product presentations (Vaitone & Skackauskiene, 2020). Thus, customer loyalty was considered as a response as it will provide positive word-of-mouth and behavioral intention of using E-CRM services.

HYPOTHESIS DEVELOPMENT AND RESEARCH MODEL

E-CRM and Customer Satisfaction

E-CRM is a technique of targeting and serving customers on an individual basis, thus creating and enhancing a continuous relationship with their customers and gradually reducing marketing costs (Mang'unyi et al., 2018). Previous studies postulated that E-CRM leads to customer satisfaction. Customer satisfaction is the key factor in the growth of E-CRM (Zaim, Ramdani & Haddi, 2020). When the customers are satisfied with the services offered by their service providers, the relationship gets stronger which further leads to positive word-of-mouth (Adnan et al., 2021; Mulyono & Situmorang, 2018). E-CRM services helped the customers to serve and interact with their banks that enhances their satisfaction level and thereby ultimately leads to loyal customer base (Dehghanpouri, Rastgar et al., 2019; Soltani & Rostamzadeh, 2020). Dhingra and Dhingra (2013) postulated that the customers are satisfied with the E-CRM services that are offered by their banks because of the trust, convenience and service quality. Al-Dmour et al., (2019) stated that the proper implementation of E-CRM services in the organization leads to the positive impact on customer satisfaction whereas Oumar et al., (2017) also opined that E-CRM is effective in strengthening the customer relationship and also stimulating

the development of virtual environment which further leads to increased customer satisfaction. Satisfied customer would be more likely to use and recommend their bank to their relatives/friends and to be more resistant to offers from other banks (Chocholakova et al., 2015). Hence, based on the previous studies, we hypothesize:

H1: E-CRM is positively related to customer satisfaction.

Customer Satisfaction and Customer Loyalty

Customer satisfaction has been considered as one of the key factor that led to customer loyalty (Hosseini & Shahmoradi, 2016). In fact, when the customers are satisfied with the services provided by the banks, they are willing to recommend it to others (Mulyono & Situmorang, 2018). Various studies have supported the idea that customer satisfaction is one of the antecedents of customer loyalty (Kamath et al., 2019). Tahir (2020) have found that there is a strong relationship between satisfaction and loyalty and postulated that the level of customer loyalty increases when the customers are happy with their companies' products/ services. Also, behavioral theories such as theory of cognitive dissonance or learning theories have delineated that customer loyalty is one of the key outcome of customer satisfaction. The reverse relationship is not as clear, since the customer can have their accounts in different banks, but can choose to stay loyal to only one of those banks. Arokiasamy (2013) revealed that without loyalty, satisfaction can be achieved but without satisfaction, loyalty cannot be achieved. Extant literature highlighted the significance of customer satisfaction in establishing relationships with consumers that led to creation of customer loyalty (Belas & Gabcova, 2016; Cajestan, 2018; Hayati et al., 2020; Kamath et al., 2019; Nobar & Rostamzadeh, 2018; Tahir, 2020). Hence, based on the previous studies, we hypothesize:

H2: Customer satisfaction is positively related to customer loyalty.

E-CRM and Customer Loyalty

Customer loyalty is considered to be the most important and key goal of relationship marketing activities (Lee-Kelley et al., 2003). Tariq et al., (2019) advocated that the proper employment of E-CRM services lead to loyalty of the customers. Without the loyal customers, almost no organization will survive in the long-run and one of the most reliable ways of attaining customer loyalty is to improve the quality of the services provided by the organization (Al-Shoura et al., 2017). According to Oumar et al., (2017), if banks provide better E-CRM services to their customers, their profitable customer base will expand, and customers will recommend their banks to their friends and relatives, resulting in positive word-of-mouth. Previous literature revealed that E-CRM and customer loyalty are positively linked to each other (Farmania, Elsyah & Tuori, 2021; Khan & Khawaja, 2013; Kakesh, Al-Weshah & Al-Ma'aitah, 2021; Mang'unyi et al., 2018; Mousavai et al., 2015**;** Mulyono & Situmorang, 2018**;** Rashwan et al., 2019**;** Salehi et al., 2015; Shastri et al., 2020; Sasono, Suroso & Novitasari, 2021; Tariq et al., 2019). Hence, based on the previous studies, we hypothesize:

H3: E-CRM is positively related to customer loyalty.

E-CRM, Customer Satisfaction and Customer Loyalty

For developing the linkages between E-CRM, customer satisfaction and customer loyalty, the S-O-R model of Mehrabian and Russell (1974), reformed by Jacoby (2002) in marketing context, had been employed. According to the S-O-R model, environmental characteristics (here E-CRM) act as a stimulus that impact the affective and cognitive status of individuals (here customer satisfaction), resulting in certain responses (here customer loyalty). Proper implementation of E-CRM leads

to strengthening of the customer relationships and also stimulating the development of virtual environment leading to enhanced customer satisfaction (Upadhyaya, 2020). This positive customer satisfaction inculcates a feeling of positive attitude and fulfilment among the customers that led to customer loyalty (Hayati et al., 2020; Li, Lu, Hou, Cui & Darbandi, 2021). Therefore, E-CRM enhances customer loyalty through customer satisfaction, which plays the role of mediator. Few researchers also postulated that customer satisfaction does not play a mediating role between the E-CRM and customer loyalty (Ismail & Hussin, 2016; Rashwan et al., 2019). Thus, it is pertinent to examine the mediating role of customer satisfaction between E-CRM and customer loyalty. Thus, the following hypothesis is formulated:

H4: Customer satisfaction mediates the relationship between E-CRM and customer loyalty.

Based on the theoretical framework, we propose a research model for the study as presented in Figure 1.

Figure 1. Proposed research model
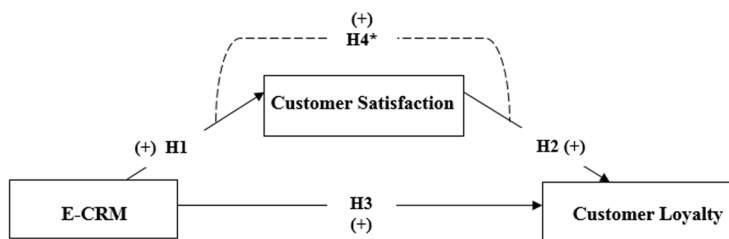
RESEARCH METHODOLOGY

Sample and Data collection

The data was collected from 836 respondents who were using E-CRM services (internet banking, mobile banking, debit/credit cards, electronic fund transfers and chatbots) offered by their banks in Delhi/NCR region of India. Delhi/NCR has been chosen for the current study because it is one of the biggest business and commercial center of India and also has the highest penetration rate of 69% with 11.2 million internet users in 2019 (Statista, 2019). For this study, top 5 public sector banks (State Bank of India, Bank of Baroda, Punjab National Bank, Bank of India, Industrial Development Bank of India) and top 5 private sector banks (Housing Development Finance Corporation Bank, Kotak Mahindra Bank, Industrial Credit and Investment Corporation of India Bank, Axis Bank and Indusind Bank) were selected based on the market capitalization data available for the year 2019 (Money Control 2019a; Money Control 2019b). The data was collected based on the two criteria:

(1) Respondents were using E-CRM services offered by their banks.
(2) Respondents were using E-CRM services from one of the selected ten banks only. And in case, the respondents were having more than one bank, then they were asked to choose the most preferred bank in which they use maximum of the E-CRM services.

To meet these criteria, purposive sampling technique was employed in this research so as to ensure the valid participation of the respondents from the selected ten banks only. Purposive sampling technique is considered to be an efficient and acceptable approach for applying multivariate data analysis (Black, 2019). Bryman and Bell (2015) postulated that non-probability sampling is appropriate and used more frequently in case of survey or field work research. Also, Polik and Beck (2010) revealed that the studies that involves "humans as subjects" are less likely to embrace random samples. The total responses received were 915. Out of these 915, 24 questionnaires were eliminated due to not meeting the aforesaid criteria and 55 were removed because of missing values, thus, the valid questionnaires stood at 836.

Measures

Pre-existing scales were adapted for the current study. Since the scales were established in the different countries, they were re-validated in Indian context. These scales were selected because they were well-recognized by previous scholars in the banking industry (Mang'unyi et al., 2018; Oumar et al., 2017; Rai & Srivastava, 2012; Srivastava & Kaul, 2016; Tharanikaran, Sritharan, & Thusyanthy, 2017). To measure E-CRM, 19-items scale comprised of six dimensions i.e. customized products/ services, transaction security/privacy, alternative payment methods, problem solving, online feedback and frequently asked questions (FAQs) was adapted from Abdulfattah (2012). To measure customer satisfaction, 18-items scale consisted of six dimensions i.e. content, accuracy, format, ease-of-use, timeliness and safety was adapted from Chen, Hsiao and Hwang (2012) whereas to measure customer loyalty, 24-items scale comprised of three dimensions namely attitudinal, behavioral and cognitive loyalty was adapted from Jones and Taylor (2007). Prior to final data collection, pre-testing and pilot testing were employed. In pre-testing, the questionnaires were presented to industry experts (5 banks' managers and 3 marketing experts) to ensure the face validity and they provided constructive feedback regarding the sequencing of the questionnaire which was incorporated. After the pre-testing, pilot testing was employed on 50 bank's customers to test the internal consistency of the adapted scales by using Cronbach's alpha. The value of Cronbach's alpha was found to be more than 0.70. Hence, the scales were found reliable and viable for further research.

Non-Response Bias

For testing the non-response bias in the current study, the researchers followed the works of Armstrong and Overston (1977) where both the early and late responses were scrutinized using independent t-test. The findings revealed that there were no significant differences existed between the early and late responses, hence, there was no problem of non-response bias in the study.

RESULTS

Demographic Information

Out of 836 respondents, 453 (54.2%) were males and 383 (45.8%) were females. In terms of age, 364 (43.5%) were less than 30 years, 328(39.2%) were in the range of 30 to 40 years, 106 (12.7%) were between 41 to 50 years, 24(2.9%) were between 51 to 60 years and 14(1.7%) were above 60years whereas on educational front, 104 (12.4%) had completed high school, 356 (42.6%) were graduated, 255(30.5%) were post-graduated, 32(3.8%) were doctorate and 89(10.7%) had professional degree. In terms of occupation, 129(15.4%) were students, 307(36.7%) were in service class, 353(42.3%) were self-employed and 47(5.6%) were house maker.

Descriptive Statistics

The descriptive statistics i.e. mean and standard deviation of the three constructs namely E-CRM, customer satisfaction and customer loyalty were presented in Table 1. The mean score of all the three

constructs were between 3 to 4 and the standard deviation of all the three constructs were found to be around 0.50 indicating that there was no high variation in the data. Also, the correlation values indicated that all the three constructs were moderately related to each other and were found to be statistically significant at p<0.01.

Measurement Model

To test the validity of the data, confirmatory factor analyses (CFA) was undertaken. Table 2 depicted the convergent validity of the data. All the three constructs had composite reliability more than 0.70 and average variance extracted (AVE) more than 0.50, thereby, satisfying the convergent validity (Fornell & Lacker, 1981). Table 1 presented the discriminant validity of all the three constructs. Subsequently, the square root of AVE (diagonal values) of all the three constructs were found to be more than the correlation values (non-diagonal values), thereby, satisfying the discriminant validity. Therefore, from Table 1 and Table 2, it was found that both the convergent and the discriminant validity has been met. The model fitness of the data was also carried out using CFA. The results revealed that all the fit indices were found to be in the acceptable range i.e. CMIN/DF: 2.040; GFI: 0.879; AGFI: 0.869; NFI: 0.939; TLI: 0.966; CFI: 0.968; RMSEA: 0.035; SRMR: 0.031 (Hair et al., 2010). Therefore, the data fit the model well.

Table 1. Mean, standard deviation, correlation matrix and discriminant validity

	Mean	Std. Dev.	E-CRM	Customer Satisfaction	Customer Loyalty
E-CRM	3.178	0.462	**0.710[#]**		
Customer Satisfaction	3.703	0.537	0.432**	**0.751[#]**	
Customer Loyalty	3.393	0.501	0.369**	0.370**	**0.761[#]**

[#]Square root of AVE; **p<0.01

Common Method Biases

To check whether the data was contaminated with common method biases, we followed the work of Spralls et al., (2011) and employed Harman's single factor analysis (Harman, 1967) by extracting a single factor without any rotation through principal component matrix. The results revealed that the factor was able to explain 30.6% of the total variance of the data, which is less than the threshold limit of 50% as proposed by Harman (1967). Therefore, it was evident that the data was free from common method biases.
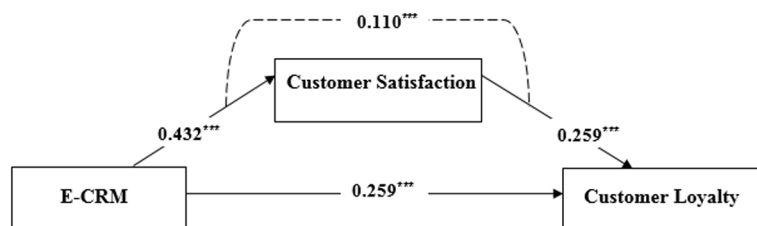
Structural Model

To assess the structural model, the maximum likelihood estimation (MLE) was undertaken. The bootstrapping method was used with 2000 bootstrap replicates. The evaluation of the hypothesized model was done using the fit indices and all the values of fit indices were found to be in the acceptable range i.e. CMIN/DF: 2.040; GFI: 0.879; AGFI: 0.869; NFI: 0.939; TLI: 0.966; CFI: 0.968; RMSEA: 0.035; SRMR: 0.031 (Hair et al., 2010). Table 3 shown below described the path details after analyzing the impact of E-CRM on customer loyalty through customer satisfaction and Figure 2 depicted the structural model of the study. The results revealed that the E-CRM had a significant positive impact on customer satisfaction (β= 0.432, p<0.001). Therefore, H1 was supported. The impact of customer satisfaction on customer loyalty was found to be significant (β= 0.259, p<0.001). Therefore, H2 was supported. Also, the impact of E-CRM on customer loyalty was found to be significant (β= 0.259, p<0.001). Hence, H3 was also supported.

Table 2. Results of convergent validity

Constructs	Regression Weights	Composite Reliability(CR)	Average Variance Extracted (AVE)
E-CRM		0.860	0.505
Customized products/services	0.707		
Transaction security/ privacy	0.718		
Alternative payment methods	0.714		
Problem solving	0.701		
Online feedback	0.714		
Frequently asked questions	0.708		
Customer Satisfaction		0.860	0.505
Content	0.755		
Accuracy	0.768		
Format	0.715		
Ease of use	0.730		
Timeliness	0.795		
Safety	0.742		
Customer Loyalty		0.804	0.578
Behavioral Loyalty	0.705		
Attitudinal Loyalty	0.854		
Cognitive Loyalty	0.714		

Further, the mediation analysis was carried out using bootstrapping technique to check the relevance of the mediating role of customer satisfaction on the relationship between E-CRM and customer loyalty. The result of mediation analysis was presented in Table 4. The total effect of E-CRM on customer loyalty (before introducing customer satisfaction as a mediating variable) was found to be significant ($\beta = 0.369$, $p<0.001$). After introducing customer satisfaction as a mediating variable, the direct and indirect effects were examined. The direct effect of E-CRM on customer loyalty was found to be significant ($\beta = 0.259$, $p<0.001$) and also the indirect effect of E-CRM on customer loyalty through customer satisfaction was found to be significant ($\beta = 0.110$, $p<0.001$). Consequently, with the help of direct and indirect effect, it was found that the relationship between E-CRM and customer

Figure 2. Structural model

Note: ***p<0.001

Table 3. Path details of structural model

Paths	Standardized Estimates	S.E.	95% Bootstrap Confidence Level		Remarks
			L.L	U.L	
E-CRM→ C.S	0.432***	0.034	0.367	0.499	H1 supported
C.S-C.L	0.259***	0.044	0.171	0.346	H2 supported
E-CRM – C.L	0.259***	0.043	0.173	0.346	H3 supported

Note: C.S- Customer satisfaction; C.L- Customer loyalty; ***p<0.001

loyalty was partially mediated by customer satisfaction since the direct effect of E-CRM on customer loyalty was significant when the mediator was introduced in the study. Therefore, H4 was supported. Hence, all the proposed hypotheses were supported in this study.

DISCUSSION

Consumer behavior is considered to be an intrinsic quality of relationship. This research was based on the idea of S-O-R model of consumer behavior. The research investigated the impact of E-CRM (a stimulus) and customer satisfaction (organism) on customer loyalty (response) in the context of the banking industry by considering customer satisfaction as mediating variable. Firstly, the relationship between E-CRM and customer satisfaction was analyzed and the results revealed that E-CRM had a significant positive influence on customer satisfaction ($\beta=0.432$, p<0.001). The research findings were found to be in resonance with the past literature (Abdulfattah, 2012; Adnan et al., 2021; Al-Dmour et al., 2019; Chuang et al., 2012; Dehghanpouri et al., 2020; Khan & Khawaja, 2013; Mang'unyi et al., 2018; Mousavai et al., 2015; Mulyono & Situmorang, 2018; Oumar et al., 2017; Rastgar et al., 2019; Upadhyaya, 2020; Zaim et al., 2020) and supported the existing body of knowledge that articulated that the relationship between the customers and service providers gets much stronger when the customers are more satisfied with the services offered by their respective service providers. E-CRM helps in enhancing the long-lasting customer relationships and also stimulating the development of virtual environment which further leads to increased customer satisfaction. Hence, E-CRM has a significant positive impact on customer satisfaction. Therefore, hypothesis (H1) was accepted. Secondly, the relationship between customer satisfaction and customer loyalty was investigated and the results found that customer satisfaction had a significant positive influence on customer loyalty ($\beta =0.259$, p<0.001). The findings were found to be in corroborated with the previous studies (Belas & Gabcova, 2016; Cajesthan, 2018; Hayati et al., 2020; Kamath et al., 2019; Nobar & Rostamzadeh, 2018; Tahir, 2020) and stated that the customer satisfaction is found to be significant in establishing the relationship with their customers that lead to creation of customer loyalty. When the customers are satisfied with the services provided by their banks, their level of loyalty towards their service provider increases. Satisfied customers tend to be more likely to opt and recommend their bank to their relatives/friends

Table 4. Mediation results between E-CRM, customer satisfaction and customer loyalty

Path	Total Effect	Indirect Effect	Direct Effect	Type of Mediation	Remarks
E-CRM → C.S → C.L	0.369***	0.110***	0.259***	Partial Mediation	H4 supported

Note: C.S- Customer satisfaction; C.L- Customer loyalty; ***p<0.001

and would be more resistant to offers from the other banks. Henceforth, customer satisfaction has a significant positive impact on customer loyalty. Therefore, hypothesis (H2) was accepted.

Thirdly, the relationship between E-CRM and customer loyalty was then investigated to examine whether there was any direct linkage between them and the result findings revealed that there was a significant direct impact of E-CRM on customer loyalty (β =0.259, p<0.001). The findings were found to be in consonance with the past literature (Farmania et al., 2021; Kakesh et al., 2021; Khan & Khawaja, 2013; Mang'unyi et al., 2018; Mousavai et al., 2015; Mulyono & Situmorang, 2018; Rashwan et al., 2019**;** Salehi et al., 2015; Sasono et al., 2021; Shastri et al., 2020) and revealed that if the banks provide better E-CRM services to their customers, their profitable customer base will expand, and the customers will recommend their banks to their friends and relatives, resulting in positive word-of-mouth. Hence, E-CRM has a significant positive impact on customer loyalty. Therefore, hypothesis (H3) was also supported. Lastly, to examine the mediating effect of customer satisfaction between E-CRM and customer loyalty, the result revealed that customer satisfaction partially mediated the relationship between E-CRM and customer loyalty (β =0.110, p<0.001). This research findings differ from Ismail and Hussin (2016) and Rashwan et al., (2019) but coheres with the findings of Mousavai et al., (2015); Mulyono and Situmorang, (2018); Oumar et al., (2017); Rashwan et al., (2019) and Safari et al., (2016). The current study revealed that E-CRM services help the customers to serve and interact with their banks that enhances their satisfaction level and thereby leads to loyal customer base. According to the recent study (SuperOffice, 2021), it has been found that 74% of the businesses feel that E-CRM systems were able to provide them better access to customer data which helped them to offer customized products/services, thereby enhancing customer satisfaction. This positive customer satisfaction inculcates a feeling of positive attitude and fulfillment among the customers that leads to customer loyalty (Hayati et al., 2020). Hence, the current study revealed that customer satisfaction does play a mediating role between E-CRM and customer loyalty. Thus, hypothesis (H4) was also supported. Thus, the findings revealed that all the four hypotheses were supported.

CONCLUSION

In today's vehement business environment, customers are in a strongest position of power. Hence, it is high time for businesses and marketers to recognize this and work diligently to enhance their loyal customers' base. E-CRM can be considered as the definite solution for both the customers as well as the organizations. This study was an attempt to examine the relationship between E-CRM, customer satisfaction and customer loyalty based on the theoretical underpinning of S-O-R model by considering customer satisfaction as mediating variable in the context of banking industry. The results revealed that E-CRM has a significant positive impact on customer satisfaction and customer loyalty and also customer satisfaction partially mediates the relationship between E-CRM and customer loyalty. Consequently, the research findings confirm the applicability of theory of S-O-R model and ratifies that the stimulus (here E-CRM) arouses cognitive and emotional aspect of customers (here customer satisfaction) which further entails certain responses (here customer loyalty). Hence, the relationship between E-CRM and customer loyalty is partially mediated by customer satisfaction.

IMPLICATIONS

The current study not only contributes to the existing body of knowledge and literature in the banking industry in India but also gives the managing authorities some substantial impacts. The findings revealed that how critical it is for managers to ensure that the quality of services is maintained; this quality not only impacts the current perceptions of the consumers but also has a long-standing effect. The customers generally tend to be satisfied when they are pleased with the services offered by their banks. This positive customer satisfaction inculcates a feeling of positive attitude and fulfilment

among the customers that lead to attract huge customer base which in turn, has a positive impact on the financial profitability and productivity of the banking industry (Kumar & Mokha, 2020).

The banking industry need to consciously focus on achieving consumer satisfaction so as to gain their loyalty. The banks should build and enhance mutual relationship with their customers to achieve their individual attention (Elbedweihy et al., 2016). The banks should contemplate all the dimensions of E-CRM to enhance and improve customer satisfaction and loyalty. The banks should provide proper manpower training to the front line staff so as to enhance the quality of their staffs' behavior with the customers, thereby improving customer relationships. The front-line staff should be well-versed with all the products and services which are being offered by their banks and should be compatible to deal with tech-savvy equipment. They should provide assistance to customers whenever need arises and to make their customers aware of the latest technologies available in the banking industry.

The banks should target the specific needs of their customers and should provide value-added services to constantly engage with their customers through feedback to serve them better, thereby, enhancing customer satisfaction and loyalty (Cajestan, 2018). Hence, the banks' managers should advance E-CRM dimensions so as to satisfy the needs and requirements of the customers and enhance the loyal customer base.

LIMITATIONS AND FUTURE SCOPE

This research has the following limitations. First, this research was conducted on cross-sectional data. Future research can be conducted on longitudinal data to determine the causality between the variables. Second, the results were analyzed for the banks' customers of Delhi/NCR region only. Future research can be extended to other states of India or any other country so to reproduce our research design, thus validating the results and findings of this research. Third, this research model was carried out in the context of the banking industry only which can further be extended to other industries also such as tourism, e-commerce and airlines. Fourth, the future research can be done by comparing the public and private sector banks in terms of the E-CRM, customer satisfaction and customer loyalty. Last, the sample size was not very large which lacked the generalizability of the findings.

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APPENDIX A.

Survey Instrument

This survey is designed to understand the relationship between E-CRM, customer satisfaction and customer loyalty in the banking industry. I assure you that the information furnished herein would be kept strictly confidential and be used for academic research only.
    * Required

1. Are you using E-CRM services offered by your bank? *Mark only one oval.*
    ◦ Yes
    ◦ No
2. Please select from the given list of banks (This study is intended for these 10 banks only. In case you have more than 1 bank, please select the most preferred bank in which you use E-CRM services) * *Mark only one oval.*
    ◦ State Bank of India
    ◦ Bank of Baroda
    ◦ Punjab National Bank
    ◦ Bank of India
    ◦ IDBI Bank
    ◦ HDFC Bank
    ◦ Kotak Mahindra Bank
    ◦ ICICI Bank
    ◦ Axis Bank
    ◦ Indusind Bank
    ◦ None of the above

Section A: Basic Banks and E-CRM related questions

3. Type of your bank: * *Mark only one oval.*
    ◦ Public Sector Bank
    ◦ Private Sector Bank
4. How long have you been a customer of the bank? * *Mark only one oval.*
    ◦ Less than one year
    ◦ 1 to 5 years
    ◦ 5 to 10 years
    ◦ More than 10 years
5. How did you know about E-CRM services in banks? * *Mark only one oval.*
    ◦ Media Advertising
    ◦ Friends/ Relatives
    ◦ Bank Staff
    ◦ Co-workers
6. Which E-CRM services you use in your bank? * *Check all that apply.*
    ◦ Internet Banking
    ◦ Mobile Banking
    ◦ Electronic Fund Transfer (RTGS / NEFT/IMPS/UPI)
    ◦ Debit/ Credit Cards
    ◦ Automatic Teller Machine (ATMs)
    ◦ Chatbots

7. How long have you been using E-CRM services in banks? *Mark only one oval.*
   ◦ Less than 1 year
   ◦ 1 to 3 years
   ◦ 4 to 6 years
   ◦ More than 6 years
8. How frequently do you use your bank's E-CRM services per month? *Mark only one oval.*
   ◦ Less than 2
   ◦ 2 to 4 times
   ◦ 5 to 8 times
   ◦ More than 8 times
9. Why did you choose your bank? *Check all that apply.*
   ◦ E-CRM Services
   ◦ Better Service
   ◦ Helpful staff
   ◦ Proximity
   ◦ Convenient Business Hours

10. State your opinion for the following statements about E-CRM *

Mark only one oval per row	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
The bank allows me to customized products or services on my own need.	1	2	3	4	5
I am able to interact with my bank to get service tailored to my need.	1	2	3	4	5
Service customization motivates me to use my bank.	1	2	3	4	5
I found the service customization possibilities important for the success of the banking sector.	1	2	3	4	5
The bank does not misuse my personal information.	1	2	3	4	5
The bank site is secure for my information.	1	2	3	4	5
I'm sure that all private information about me as a customer is safeguarded from any unauthorized access when using bank's service.	1	2	3	4	5
Different payment methods to choose are available in my bank's online channel.	1	2	3	4	5
Different payment methods are an important factor for me to visit and use the bank's online channel again.	1	2	3	4	5
Different payment options are stated clearly.	1	2	3	4	5
The bank's online channel provides appropriate information to customers when a problem occurs.	1	2	3	4	5
The bank quickly resolves problems I encounter with any online transactions.	1	2	3	4	5
Whenever I face any problem, I use the online complaining form to contact the bank.	1	2	3	4	5
Online Feedback feature is available on my bank's website.	1	2	3	4	5
I always use the Feedback form for the internet bank.	1	2	3	4	5
The site has customer service representatives available online	1	2	3	4	5
Frequently Asked Questions (FAQs) help me when I use the internet banking.	1	2	3	4	5
I use FAQs always while exploring the bank website.	1	2	3	4	5
I found FAQs useful.	1	2	3	4	5

Section B: Customer Satisfaction Related Questions

11. Please rate the level of customer satisfaction with respect to banking services:

* Mark only one oval per row	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Do you think that bank's online channels provide the precise information you need?	1	2	3	4	5
Do you think that the information content of bank's online channels meet your needs?	1	2	3	4	5
Do you think that bank's online channels provide transaction reports that seem to be just about exactly what you need?	1	2	3	4	5
Do you think that bank's online channels provide sufficient information?	1	2	3	4	5
Do you think that data in bank's online channels are accurate?	1	2	3	4	5
Do you think that you are satisfied with the accuracy of data in bank's online channels?	1	2	3	4	5
Do you think the output of bank's online channels is presented in a useful format?	1	2	3	4	5
Do you think that the report information extracted from bank's online channels is clear?	1	2	3	4	5
Do you think that bank's online channels are user friendly?	1	2	3	4	5
Do you think that bank's online channels are easy to use?	1	2	3	4	5
Do you think that you get the information you need in time from bank's online channels?	1	2	3	4	5
Do you think that bank's online channels provide up-to-date information?	1	2	3	4	5
Do you think bank's online channels provide sufficient security?	1	2	3	4	5
Do you think that you are satisfied with the security of bank's online channels?	1	2	3	4	5
Do you think that the adoption of security mechanism of bank's online channels will increase the data security on transactions?	1	2	3	4	5
Do you think that you are satisfied with the security mechanisms of bank's online channels?	1	2	3	4	5
Do you think that you are satisfied with the assurance of online transaction on bank's online channels?	1	2	3	4	5
Do you think that you are satisfied with bank's online channels while the involvement of trusted third-party (TTP) in dealing with online transactions?	1	2	3	4	5

Section C: Customer Loyalty related questions

12. Please rate the level of customer loyalty with respect to banking services

* Mark only one oval per row	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I will probably use my bank again.	1	2	3	4	5
I intend to repurchase services from this bank again in the future.	1	2	3	4	5
It is possible that I will use this bank in the future.	1	2	3	4	5
I will not switch to another service bank.	1	2	3	4	5
I do all of my transactions with this bank when I need this type of service.	1	2	3	4	5
I sometimes do transactions in another bank that provides the same type of service.	1	2	3	4	5
I deal exclusively with this bank.	1	2	3	4	5
My bank gets the majority of my business when I need this type of service.	1	2	3	4	5
I prefer my bank to the other banks.	1	2	3	4	5
I would rank my bank as #1 amongst the other banks listed.	1	2	3	4	5
My bank provides the best service among the alternatives I listed Earlier.	1	2	3	4	5
Compared to my bank, there are few alternatives with whom I would be satisfied.	1	2	3	4	5
I say positive things about my bank to other people.	1	2	3	4	5
I recommend my bank to someone who asks my advice.	1	2	3	4	5
I encourage friends and relatives to do transactions with this bank.	1	2	3	4	5
I am likely to do whatever I can to help my bank do better.	1	2	3	4	5
I do transaction from my bank because I like to give my bank my business.	1	2	3	4	5
I will go out of my way to assist my bank.	1	2	3	4	5
I am likely to pay a little bit more for using this bank.	1	2	3	4	5
Price is not an important factor in my decision to remain with this bank.	1	2	3	4	5
If my bank were to raise the price by 10%, I would likely remain.	1	2	3	4	5
I am willing to pay more for my bank's services.	1	2	3	4	5
The bank I use says a lot about who I am.	1	2	3	4	5
I think of my bank as "my" bank.	1	2	3	4	5

Section D: Demographic Information

13. Gender * Mark only one oval.
    ◦ Female
    ◦ Male
    ◦ Prefer not to say
14. Age * Mark only one oval.
    ◦ Less than 30 years
    ◦ 30 to 40 years
    ◦ 41 to 50 years
    ◦ 51 to 60 years
    ◦ Above 60 years

15. Occupation? * Mark only one oval.
    ◦ Student
    ◦ Service
    ◦ Self-employed
    ◦ House Maker
    ◦ Retired
16. Level of Educational Qualification: * Mark only one oval.
    ◦ High School
    ◦ Graduation
    ◦ Post-Graduation
    ◦ Doctorate
    ◦ Professional Degree
17. Annual income: * *Mark only one oval.*
    ◦ Less than Rs, 2,50,000
    ◦ Rs 2,50,001 - Rs 5,00,000
    ◦ Rs 5,00,001 - Rs 7,50,000
    ◦ Rs 7,50,001 - Rs 10,00,000
    ◦ More than Rs 10,00,000

Thank you for your time and cooperation

Pushpender Kumar is currently working as an Assistant professor in the Department of Commerce at Kirori Mal College, University of Delhi. He has done BBS from College of Business Studies, University of Delhi and Master's of International Business from Kurukshetra University. He has done a Ph.D. from Faculty of Management Studies, University of Delhi and Post-Doc from Alliant School of Management, Alliant International School, U.S.A. He has an experience in teaching under-graduate and post-graduate students for over 20 years. His field of specialization and interest has been in the papers of Marketing and International business. He has authored number of research papers published in national and international refereed journals.

Anupreet Kaur Mokha is a research scholar currently pursuing Ph.D. from the Department of Commerce, University of Delhi in the field of Marketing. She is also an Assistant Professor in the Department of Commerce, SGTB Khalsa College, University of Delhi. She did her B.Com (H) and M.Com from SGTB Khalsa College, University of Delhi. Her area of interests are Marketing, Finance and Taxation. She has an experience of teaching of more than 4 years. She has credit research papers which have been published in refereed national and international journals and also presented in many renowned conferences.