Linking electronic customer relationship management and customer loyalty through serial mediation of customer experience and customer satisfaction

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Abstract: Despite the growing significance of electronic customer relationship management (E-CRM) and its influence on consumer behaviours, there remains a scarcity of studies investigating the underlying mechanisms necessary for enhancing customer loyalty. In light of this gap, this study is a foremost study that aims to investigate a comprehensive model that examines the relationship between E-CRM and customer loyalty, employing the serial mediation of customer experience and customer satisfaction. Data was collected from 836 bank customers utilising E-CRM services provided by their banks. The findings indicate that E-CRM plays a vital role in fostering customer loyalty through the serial mediation of customer experience and customer satisfaction. The study will aid banks in establishing closer connections with their customers by targeting their specific needs and delivering value-added services, all while actively engaging through feedback to enhance customer service.

Keywords: E-CRM; customer experience; customer satisfaction; customer loyalty; serial mediation; banking industry; SEM.

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1   Introduction

The market for customer relationship management (CRM) witnessed remarkable growth globally, with a valuation of $71.06 billion in 2023. Projections indicate that this market is set to soar even higher, reaching a staggering $157.53 billion by 2030, propelled by a robust compound annual growth rate (CAGR) of 12% from 2023 to 2030 (Fortune Business Insights, 2023). Companies worldwide have recognised the indispensable value of CRM/E-CRM in customer acquisition and retention, emphasising the need for enduring customer relationships. Irrespective of their scale, organisations are actively engrossed in cultivating long-term customer relationships, acknowledging the customers' paramount importance (Das et al., 2018). To achieve customer-centric objectives, CRM systems must evolve, enhancing their predictive capabilities and precision while prioritising the delivery of personalised and impactful customer experiences. Recognising the imperative to meet customers' digital demands and offer seamless services at their fingertips, businesses are transitioning from traditional CRM to advanced E-CRM systems (Herman et al., 2020). E-CRM has gained scholarly attention over the last few decades (Khan et al., 2020; Kumar et al., 2022). However, the potential of E-CRM remains largely untapped in the Indian context, as most research in this domain primarily focuses on developed nations (Mang'unyi et al., 2018). E-CRM is still in its nascent stage, requiring significant growth to meet the imperative of digital transformation (Kumar et al., 2022; Mokha and Kumar, 2022). Consequently, investment in E-CRM has become an urgent necessity. E-CRM is defined as an information system that allows organisations to build an enduring relationship with their customers over the web using numerous electronic touch points such as web browsers, emails, etc. (Abdulfattah, 2012).

Previous research has consistently demonstrated the positive impact of E-CRM on various aspects, including customer satisfaction (Kumar and Mokha, 2022; Rashwan et al., 2019), customer loyalty (Mang'unyi et al., 2018), customer retention (Al-Dmour et al., 2019), and financial profitability (Dubihlela and Khosa, 2014). However, there are still certain research findings that indicate a lack of impact by the E-CRM system,

leaving the business community disheartened (Singh and Sirohi, 2014). This discrepancy in E-CRM's effectiveness could stem from the oversight of business processes and the implementation of features that fail to truly observe customer loyalty and satisfaction, or it may be influenced by individuals' apprehensions towards the technology itself (Hamid et al., 2019). Therefore, there is a pressing need to investigate the significance of E-CRM and uncover the underlying mechanisms required to enhance customer loyalty.

Organisational-level interventions can play a pivotal role in fostering customer loyalty. The level of customer loyalty escalates when customers are content and satisfied with the products/services offered by their organisations (Damberg et al., 2022; Tahir, 2020). Arokiasamy (2013) further emphasises that loyalty cannot be achieved without satisfaction, highlighting its indispensable role. Consequently, customer satisfaction catalyses word-of-mouth promotion, repeat visits, repurchasing, and other loyal behaviours within the business context (Hayati et al., 2020). Furthermore, an area that demands greater attention is customer experience (Cajestan, 2018; Kumar et al., 2022), which has proven to be a pivotal factor in attaining sustainable competitive advantages (Kranzbühler et al., 2018). Customers become satisfied and loyal through the experiences they encounter (Klaus and Maklan, 2013). In fact, a significant 78% of organisations have acknowledged that positive customer experiences serve as a powerful tool for nurturing their businesses and strengthening customer relationships (SuperOffice, 2021). Recognising that the long-term success of their business hinges on customer consent, organisations must focus on fostering stronger customer engagement and enduring customer experiences to cultivate satisfaction and loyalty towards their products, services, or brands (Chauhan et al., 2022; Chepur and Bellamkonda, 2022). Kumar et al., (2022) strongly advocate for studying customer experience within the realm of E-CRM to enhance customer satisfaction and loyalty. Against this backdrop, we propose to examine customer experience and satisfaction as mechanisms mediating the relationship between E-CRM and customer loyalty. Our assumption is rooted in the stimulus-organism-response (SOR) model, asserting that environmental characteristics (here E-CRM) act as stimuli that influence the cognitive and affective state of individuals (here customer experience and satisfaction), ultimately leading to specific responses (here customer loyalty).

Therefore, this study aims to address the aforementioned gaps in the literature and provide valuable insights. The choice of the banking industry as the research context is justified by the fact that banks represent a traditional form of service industry, with extensive customer information, contractual services, and the potential for long-term profitability through customer loyalty (Reichheld, 1996). Moreover, there has been a rise in complaints regarding E-CRM services, such as ATM, debit/credit cards, and mobile or e-banking. Hence, there is a compelling need to investigate E-CRM within the banking industry to gain a comprehensive understanding of the current dynamics between E-CRM, customer loyalty, customer experience, and satisfaction. Table 1 provides a few latest studies in the context of E-CRM.

Table 1   A summary of a few latest studies of E-CRM

Author (year)	Objectives	Variables	Conclusion
Mang'unyi et al. (2018)	To investigate the impact of E-CRM features on customer loyalty in Kenya's banking sector	E-CRM and e-loyalty	E-CRM demonstrated a positive relationship with customer loyalty, as the presence of E-CRM features significantly influenced customers to remain loyal when conducting transactions with a particular bank
Mulyono and Situmorang (2018)	To explore the mediating role of customer experience and satisfaction in the relationship between E-CRM and customer loyalty within the online transportation context of Indonesia	E-CRM, customer experience, customer satisfaction and customer loyalty	E-CRM serves as a strong indicator of customer experience, loyalty, and satisfaction. The relationship between E-CRM, satisfaction, and loyalty is fully mediated by customer experience. Additionally, the association between E-CRM and loyalty is partially mediated by customer satisfaction
Al-Dmour et al. (2019)	To measure the influence of E-CRM success factors on customer satisfaction, retention, trust, and business performance of commercial banks in Jordan	E-CRM, customer satisfaction, customer retention, customer trust and business performance	E-CRM exerted a favourable influence on customer satisfaction, retention, and trust, subsequently leading to positive outcomes for banks' business performance. Moreover, customer satisfaction and trust were found to play a positive role in enhancing customer retention
Rashwan et al. (2019)	To examine the association between E-CRM and e-loyalty in Egyptian commercial banks through the mediating role of e-banking customer satisfaction	E-CRM, customer satisfaction and e-loyalty	A positive relationship was observed between the E-CRM dimension and the e-loyalty dimension. However, no mediating effect of e-banking satisfaction on the relationship between E-CRM dimensions and the e-loyalty dimension was identified
Kumar and Mokha (2020)	To explore the relationship between E-CRM and customer loyalty in the banking industry of India	E-CRM and customer loyalty	A positive relationship was found between E-CRM and customer loyalty. Therefore, improving E-CRM services will turn out to be a competitive advantage for banks to increase their loyal customer base
Upadhyaya (2020)	To explore the association between E-CRM, trust, service quality, and satisfaction	E-CRM, trust, service quality, and customer satisfaction	A positive relationship between E-CRM, service quality, and trust. Also, there was a positive relationship between E-CRM and satisfaction and service quality and satisfaction whereas negative relationship between trust and satisfaction
Sasono et al. (2021)	To explore the relationship between e-marketing, E-CRM, and e-loyalty Indonesian manufacturing industry	e-marketing E-CRM and e-loyalty	Both e-marketing and E-CRM had a positive impact on e-loyalty
Mokha and Kumar (2021)	To understand the significance of E-CRM in the banking sector of India using the TAM model	E-CRM, perceived usefulness, perceived ease of use, attitude, and behavioural intentions	E-CRM exhibited a positive influence on both the perceived usefulness and perceived ease of use. These factors, in turn, had a positive effect on the attitude towards using E-CRM, ultimately resulting in a favourable behavioural intention among customers to utilise E-CRM
Kumar et al. (2022)	To examine the relationship between E-CRM, customer experience, and satisfaction in the Indian banking sector	E-CRM, customer satisfaction, and customer experience	A positive relationship was found between E-CRM and customer satisfaction and also customer experience mediated the relationship between them
Liu et al. (2022)	To theoretically examine the antecedent role of review valence in establishing customer relationships electronically	Electronic word of mouth (e-WOM) and E-CRM	This research introduces a new theoretical model that emphasises the critical role of e-WOM in E-CRM. It highlights that e-WOM is not only an outcome of E-CRM but also a key causal mechanism that shapes consumers' perceptions of these relationships
Nurrohman et al., (2023)	To investigate the impact of E-CRM and e-service quality on customer satisfaction, corporate image, and customer loyalty	E-CRM, e-service quality, customer satisfaction, and customer loyalty	E-CRM has not a significant impact on customer loyalty and also corporate image does not play a mediating role between E-CRM and customer loyalty

2 Theoretical framework

The present research builds upon existing literature, which demonstrates that establishing a distinctive and enduring customer-company relationship can lead to the achievement and maximisation of customer loyalty (Das et al., 2018). The study is grounded in the SOR model, initially proposed by Mehrabian and Russell (1974) and further developed by Jacoby (2002). Thus, the SOR model serves as the underlying framework to elucidate the indirect relationships between E-CRM and customer loyalty, mediated by customer experience and satisfaction. According to the SOR model, stimuli, representing environmental characteristics, exert an influence on the organism (i.e., the emotional and affective aspects of customers), ultimately shaping behavioural responses (Donovan and Rossiter, 1982). This model emphasises the mediating role of the organism between stimuli and behavioural responses. In the context of e-commerce, stimuli refer to the distinctive attributes of the e-commerce environment (Yadav and Rahman, 2018). Organism refers to the internal states of customers, encompassing their perceptions, observations, evaluations, feelings, and aspirations toward the stimuli, while behavioural responses encompass customer loyalty, purchase intention, and similar aspects (Sautter et al., 2004). E-CRM is regarded as a stimulus, representing web-based technologies that enable the provision of personalised and customised products and services to customers through various electronic touchpoints (Mokha and Kumar, 2022). Customer experience and satisfaction are categorised as the organism since they pertain to the emotional and cognitive states of customers. On the other hand, customer loyalty is viewed as a behavioural response that reflects customers' actions and behaviours corresponding to their internal mindset. E-CRM serves as a means to attract and retain customers, fostering unique and long-term relationships with both service providers and customers by delivering personalised and memorable experiences that promote satisfaction, ultimately culminating in customer loyalty (Mulyono and Situmorang, 2018). Thus, this study adopts the SOR model as the theoretical framework to explore the impact of E-CRM (stimulus) on customer experience and satisfaction (organism), leading to customer loyalty (behavioural response).

3 Hypotheses development

3.1 E-CRM and customer loyalty

E-CRM proves to be highly effective in cultivating robust customer relationships and fostering the creation of a desirable virtual realm, ultimately leading to customer loyalty (Mokha and Kumar, 2021). Customer loyalty stands as the paramount and ultimate objective of relationship marketing endeavours. Mang'unyi et al. (2018) defined E-CRM as "technology-centred relationship marketing to build, attract and retain customers". It helps to enhance and improve the loyalty of the customers for a longer time period (Herman et al., 2020). Customer loyalty is the main objective of any relationship marketing activities. 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 behaviour". Strategic investment in E-CRM technology has the potential to foster customer loyalty (Arjmand et al., 2023), as E-CRM offers personalised products

and services that cater to the individual preferences of customers, aligning with the growing trend of customisation (Sokmen and Bas, 2019). Sustaining a loyal customer base is essential for any organisation's long-term survival in today's dynamic business environment. To thrive amidst volatility, companies must consistently deliver high-quality services that resonate with customers, thereby bolstering loyalty (Al-Shoura et al., 2017). Kumar and Mokha (2020) posit that encouraging customers to repeat purchases or refer the company to their friends and family demonstrates a tangible manifestation of customer loyalty. Notably, when banks provide exceptional services, they expand their pool of profitable customers, with satisfied customers actively recommending their banks to their social circles, generating positive word-of-mouth (Abu-Shanab and Anagreh, 2015; Oumar et al., 2017). Consequently, genuine customer loyalty manifests through a higher level of repeat patronage (Mang'unyi, 2018). While existing literature found a positive relationship between E-CRM and customer loyalty (Kumar and Mokha, 2020; Mang'unyi et al., 2018; Mokha and Kumar, 2022; Shastri et al., 2020; Sokmen and Bas, 2019), a study by Ismail and Hussin (2017) and Nurrohman et al. (2023) suggest the absence of such a relationship. Consequently, further investigation is warranted to comprehensively examine the current state of the relationship between E-CRM and customer loyalty. Thus, we propose the following hypothesis:

H1 E-CRM has a positive relationship with customer loyalty.

3.2   E-CRM and customer experience

The key purpose of any marketing campaign is to promote the profitability of a business and sustain good relationships with the customers (Kotler and Keller, 2016). Customers need to live time-built experiences of all the relationship moments they have with their companies in a more superior and fruitful manner to improve their unique relationships with their companies (Klaus and Maklan, 2013). Schmitt (1999) defined customer experience as "a result of undergoing or living through things that cater to sensory, cognitive, emotional, relational and behavioural values". E-CRM offers companies or businesses a web technology that captures a 360-degree view of their customers to provide improvised and positive experiences to their customers (Mulyono and Situmorang, 2018). To attain a competitive advantage in a virtual environment, customer experience is substantiated as a vital factor (Cajestan, 2018). Customers interact with their service providers using various electronic touch points such as virtual assistants, mobile, chatbots, etc. Customers have heightened expectations for seamless interactions and transactions with their banks, demanding efficiency, speed, and personalisation (Kumar et al., 2022; Mokha and Kumar, 2022). Thus, to maintain financial performance, it becomes imperative to provide customers with memorable and positive experiences. Consequently, we formulate the following hypothesis:

H2 E-CRM has a positive relationship with customer experience.

3.3   E-CRM and customer satisfaction

Customer satisfaction plays a pivotal role in the advancement of E-CRM. According to Oliver (2010), customer satisfaction is defined as the judgment that a product, service, or its features have provided a pleasurable level of consumption-related fulfillment,

encompassing both under and over-fulfillment. When customers are satisfied with the services offered by their service providers, it strengthens the relationship between them, ultimately leading to positive word-of-mouth recommendations (Mulyono and Situmorang, 2018). The level of customer satisfaction correlates with the quality of the relationship between customers and service providers, wherein higher satisfaction levels result in enhanced relationship quality (Upadhyaya, 2020). E-CRM facilitates the provision of up-to-date and accurate real-time information to customers. Furthermore, Oumar et al. (2017) postulated that E-CRM contributes to the maintenance of long-lasting customer relationships while driving the advancement of digital platforms, thereby improving customer satisfaction. Consequently, effective implementation of E-CRM services leads to customer satisfaction. Although previous literature consistently highlights the positive relationship between E-CRM and customer satisfaction (Ismail and Hussin, 2017; Safari et al., 2016; Oumar et al., 2017; Mang'unyi et al., 2018; Mulyono and Situmorang, 2018; Al-Dmour et al., 2019; Rashwan et al., 2019; Upadhyaya, 2020), a study conducted by Tariq et al. (2019) revealed the absence of such a relationship and even a decrease in satisfaction levels. Hence, there is a need to thoroughly examine the relationship between E-CRM and customer satisfaction. As a result, we formulate the following hypothesis:

H3 E-CRM has a positive relationship with customer satisfaction.

3.4 Customer experience and customer satisfaction

A remarkable and positive encounter contributes to an elevation in customer satisfaction (Raina et al., 2019). Customers expect seamless transactions that save their time and effort. By providing streamlined platforms, companies can elicit a sense of delight among customers, thereby enhancing their satisfaction levels (Chahal and Dutta, 2014). Sharma et al. (2016) suggest that the greater the customer's contentment with the products or services, the higher their level of satisfaction. Cajestan (2018) further asserts that customer experiences play a crucial role in improving customer satisfaction, as customers derive pleasure from seeing their service providers recognise their behavioural patterns and deliver unique experiences that contribute to heightened satisfaction. Ultimately, these factors contribute to improved business performance. Prior literature consistently supports the positive relationship between customer experience and customer satisfaction (Kamath et al., 2019; Mulyono and Situmorang, 2018; Nobar and Rostamzadeh, 2018; Raina et al., 2019; Syahputra and Muwatiningsih, 2019; Saini and Singh, 2020). Hence, we formulate the following hypothesis:

H4 Customer experience has a positive relationship with customer satisfaction.

3.5 Customer experience and customer loyalty

A positive and memorable experience that customers derive from their interactions with service providers fosters customer loyalty (Pine and Gilmore, 1998). This remarkable experience elicits positive emotional responses in customers (Chahal and Dutta, 2014), thereby increasing their loyalty toward the service provider. Such loyal customers are more inclined to repurchase and recommend the products or services to their friends and relatives (Mulyono and Situmorang, 2018). Notably, previous research has primarily explored the antecedents of customer loyalty through the lens of customer satisfaction

rather than customer experience (Cajestan, 2018). The customers' evaluation of services relies on both rational and affective cues embedded in their overall customer experience (Ferguson et al., 2010). These cues foster customers' commitment to their service providers, thereby enhancing customer loyalty (Brun et al., 2017; Kamath et al., 2019). Existing literature confirms the positive association between customer experience and customer loyalty (Cajestan, 2018; Klaus and Maklan, 2013; Nobar and Rostamzadeh, 2018; Raina et al., 2019; Saini and Singh, 2020; Srivastava and Kaul, 2016). Hence, we formulate the following hypothesis:

H5   Customer experience has a positive relationship with customer loyalty.

3.6   *Customer satisfaction and customer loyalty*

Customer loyalty is fostered by satisfied customers (Hosseini and Shahmoradi, 2016). When customers are content with the products or services provided by their service providers, they are inclined to recommend them to friends and relatives (Mulyono and Situmorang, 2018). Customer satisfaction is widely acknowledged as one of the determinants of customer loyalty (Kamath et al., 2019). Customers' loyalty is strengthened when they perceive that their banks understand their needs and offer optimal solutions (Tahir, 2020). Furthermore, behavioural theories such as the 'learning theory' and the 'theory of cognitive dissonance' suggest that customer satisfaction is a key driver of customer loyalty. While satisfaction can be achieved without loyalty, the reverse is not necessarily true (Arokiasamy, 2013), as customers may hold accounts with multiple banks but choose to remain loyal to a single institution (Mang'unyi et al., 2018). While prior research has established positive associations between customer satisfaction and customer loyalty, a study by Hosseini and Ahmadi Nejad (2009) explicitly stated that customer satisfaction does not invariably lead to customer loyalty. Therefore, it is imperative to examine the relationship between customer satisfaction and customer loyalty. Thus, the current study formulates the following hypothesis:

H6   Customer satisfaction has a positive relationship with customer loyalty.

3.7   *Mediating role of customer experience*

The SOR model establishes a connection between E-CRM, customer experience, and customer loyalty. According to the SOR model, stimuli represented by environmental characteristics (here E-CRM) impact the organism, encompassing the affective and cognitive aspects of customers (here customer experience), ultimately influencing behavioural responses (here customer loyalty). E-CRM equips companies with web-based technologies that enable them to capture a comprehensive view of their customers, facilitating the delivery of enhanced and positive experiences (Mulyono and Situmorang, 2018). A positive customer experience is widely regarded as a prerequisite for enhancing and cultivating long-lasting relationships with customers. Consequently, when customers are satisfied with the products or services offered by their service providers, they tend to recommend them to friends and relatives, fostering customer loyalty (Cajestan, 2018). Pine and Gilmore (1998) assert that customers develop loyalty due to the favourable experiences they encounter during transactions with their service providers. These positive experiences evoke affirmative emotional responses in customers (Chahal and Dutta, 2014), thereby contributing to increased loyalty,

repurchase intention, and word-of-mouth recommendations to friends and relatives (Saini and Singh, 2020). Based on this understanding, we propose that customer experience acts as a mediating factor between E-CRM and customer loyalty. Therefore, we formulate the following hypothesis:

H7 Customer experience mediates the relationship between E-CRM and customer loyalty.

3.8 *Mediating role of customer satisfaction*

The S-O-R model establishes a relationship between E-CRM, customer satisfaction, and customer loyalty. According to the SOR model, stimuli represented by environmental characteristics (in this case, E-CRM) impact the organism, encompassing the emotional and affective aspects of customers (in this case, customer satisfaction), ultimately influencing behavioural responses (in this case, customer loyalty). E-CRM not only contributes to the maintenance of long-lasting customer relationships but also stimulates the advancement of digital platforms, leading to improved customer satisfaction (Oumar et al., 2017). Customer satisfaction is widely recognised as the most crucial factor for business success (Otto et al., 2020). Consequently, when customers are satisfied with the products or services offered by their service providers, they tend to recommend them to friends and relatives, resulting in loyal customers (Mulyono and Situmorang, 2018). Arokiasamy (2013) affirms that satisfaction is indispensable for achieving customer loyalty, positioning it as one of the antecedents of loyalty (Kamath et al., 2019). While past literature indicates that customer satisfaction plays a mediating role between E-CRM and customer loyalty, studies by Ismail and Hussin (2016) and Rashwan et al. (2019) suggest that customer satisfaction may not influence the relationship between E-CRM and customer loyalty. Therefore, it is pertinent to investigate the mediating effects of customer satisfaction on the relationship between E-CRM and customer loyalty. Therefore, we formulate the following hypothesis:

H8 Customer satisfaction mediates the relationship between E-CRM and customer loyalty.

### 3.9 *Serial mediating role of customer experience and customer satisfaction*

This hypothesis is also formulated on the notion of the SOR model that ratifies that E-CRM (stimuli) impact the customer experience and customer satisfaction (organisms) that ultimately influences customer loyalty (responses). The effective implementation of E-CRM is instrumental in fortifying customer relationships by enabling comprehensive monitoring and tracking of customer interactions and behaviours (Kumar et al., 2022). This valuable information empowers companies to deliver tailored products and services that foster positive and memorable customer experiences. Positive customer experiences serve as a fundamental prerequisite for customer satisfaction, with satisfaction or dissatisfaction being outcomes directly influenced by customer experience (Mokha and Kumar, 2022). Companies that excel in providing an exemplary customer experience witness heightened levels of customer satisfaction, loyalty, and improved customer retention. Consequently, customer experience emerges as a vital facet of consumer behaviour, stimulating the growth of a virtual environment that ultimately enhances customer satisfaction (Upadhyaya, 2020). The more positive and favourable the customer

experience, the greater the degree of customer satisfaction (Cajestan, 2018), which in turn cultivates stronger customer loyalty. Building upon this line of reasoning, we propose that E-CRM initiates customer experiences, which in turn influence customer satisfaction, ultimately resulting in heightened customer loyalty. Thus, our conceptual model suggests the existence of a serial mediation process. Therefore, we formulate the following hypothesis:

H9 Customer experience and customer satisfaction serially mediate the relationship between E-CRM and customer loyalty.

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

Figure 1   Proposed research model
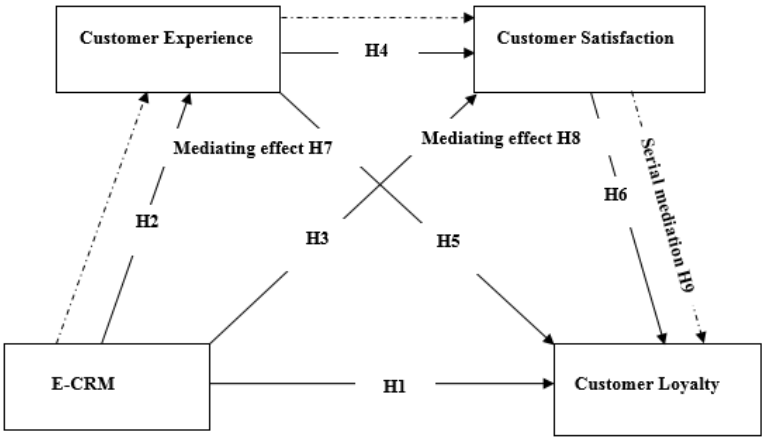
4   Research methodology

4.1   Sample and data collection

The primary data for this study was collected from customers of 10 banks in Delhi/NCR, India. The selected banks comprised the top five public sector banks and the top five private sector banks based on market capitalisation in 2019. To ensure the reliability of the measurement scale, a pilot test was conducted using Cronbach's alpha on a sample of 50 bank customers. The obtained value exceeded 0.70, indicating satisfactory internal consistency, thus confirming the scale's reliability for further analysis. Following the pilot testing, a total of 1,200 questionnaires were administered to respondents using a purposive sampling approach. Respondents were requested to select their respective banks from the provided list, and the data from 836 valid responses were considered for the study.

Among the respondents, 453 were male, and 383 were female. In terms of educational qualifications, 356 held a bachelor's degree, 255 held a postgraduate degree, 104 completed high school, 32 held a doctorate, and 89 possessed a professional degree.

Regarding age distribution, 364 respondents were below 30 years, 328 fell within the 30 to 40 years age bracket, and the remaining 144 were aged 40 years or above.

4.2   Measures

The measurement scales used in this study were obtained from existing literature. To assess E-CRM, a 19-item scale consisting of six dimensions was adopted from Abdulfattah (2012). These dimensions include 'customised products/services, transaction security/privacy, alternative payment methods, problem-solving, online feedback, and frequently asked questions (FAQs)'. *Customer experience* was measured using a 19-item scale derived from Klaus and Maklan (2013), which encompasses four dimensions: 'peace of mind, moments-of-truth, outcome focus, and product experience'. The scale for customer satisfaction comprising 18 items was adopted from Chen et al. (2012) which encompasses six dimensions: 'content, accuracy, format, ease of use, timelines and safety'. Lastly, the scale for customer loyalty was adopted from Jones and Taylor (2007) consisted of 24 items which encompass three dimensions: 'behavioural loyalty, attitudinal loyalty, and cognitive loyalty'.

5   Results

5.1   Descriptive statistics

Table 2 presents the descriptive statistics, including the mean, standard deviation, and correlation values of the data. Analysis of Table 2 shows that the mean values of all four variables range were more than 3 depicting the positive attitude of the respondents towards the E-CRM, while the standard deviation was less than 1 depicting no high variation in the data. The correlation matrix indicates that all four variables are statistically significant ($p < 0.01$). Furthermore, the correlation coefficients between the variables range from 0.369 to 0.478, indicating moderate relationships. Thus, there is a positive correlation among all the variables.

Table 2   Mean, standard deviation, correlation matrix, and discriminant validity

	Mean	Standard deviation	E-CRM	CE	CS	CL
E-CRM	3.178	0.462	0.710#			
CE	3.598	0.467	0.437**	0.726#		
CS	3.703	0.537	0.432**	0.478**	0.751#	
CL	3.393	0.501	0.369**	0.415**	0.370**	0.761#

Notes: **p-value <0.01; # square root of AVE. CE = customer experience; CS = customer satisfaction; CL = customer loyalty.

5.2   Measurement model

Confirmatory factor analysis (CFA) was conducted to evaluate the fit indices of the measurement model. The results indicated that all fit indices, including CMIN/DF (1.903), GFI (0.855), AGFI (0.846), NFI (0.926), TLI (0.962), CFI (0.963), RMSEA (0.033), and SRMR (0.035), lie within the acceptable range according to Hair et al.

(2010). These findings demonstrate that the collected data align well with the proposed measurement models. To assess the reliability and validity of the data, both SPSS and CFA using AMOS were employed. Following the criteria outlined by Fornell and Lacker (1981), composite validity is achieved when the composite reliability (CR) exceeds 0.70 and the average variance extracted (AVE) exceeds 0.50. The results of convergent validity, as presented in Table 3, indicate that all four latent constructs met the criteria, as the CR values exceeded 0.70 and the AVE values surpassed 0.50. Table 3 also presents the results of Cronbach's alpha, which was calculated to assess the internal consistency of the adopted scale. A Cronbach's alpha value above 0.70 is considered reliable (Nunnally, 1978). This table demonstrates that all constructs achieved Cronbach's alpha values higher than 0.70, indicating satisfactory levels of reliability.

Table 3   Results of convergent validity

Constructs	Regression weights	Cronbach 's alpha	Composite reliability (CR)	Average variance extracted (AVE)
E-CRM		*0.938*	*0.860*	*0.505*
Customised products/services (CPS)	0.707			
Transaction security/privacy (TSP)	0.718			
Alternative payment methods (APM)	0.714			
Problem solving (PS)	0.701			
Online feedback (OF)	0.714			
Frequently asked questions (FAQs)	0.708			
CE		*0.950*	*0.816*	*0.526*
Peace of mind (POM)	0.728			
Moments-of-truth (MOT)	0.727			
Outcome focus (OTF)	0.738			
Product experience (PE)	0.710			
CS		*0.951*	*0.860*	*0.505*
Content (C)	0.755			
Accuracy (A)	0.768			
Format (F)	0.715			
Ease of use (EOU)	0.730			
Timeliness (T)	0.795			
Safety (S)	0.742			
CL		*0.970*	*0.804*	*0.578*
Behavioural loyalty (BL)	0.705			
Attitudinal loyalty (AL)	0.854			
Cognitive loyalty (CGL)	0.714			

Note: CE = customer experience; CS = customer satisfaction; CL = customer loyalty.

Source: Author's own

In addition to assessing convergent validity, discriminant validity was also examined. According to the criteria established by Fornell and Lacker (1981), discriminant validity is achieved when the square root of the AVE exceeds the correlation values between the corresponding constructs. The results for discriminant validity are presented in Table 2. Analysis of Table 2 reveals that the square root of the AVE values (shown on the diagonal) exceeded the correlation values between the corresponding constructs (shown off the diagonal). Hence, all four constructs exhibited discriminant validity. Considering both Table 2 and Table 3, it is apparent that all four latent constructs demonstrated both convergent and discriminant validity. Therefore, the constructs exhibited high levels of reliability and validity.

5.3 Common method biasness

Furthermore, to examine the potential presence of common method biases (CMB) within the measurement model, we adopted the common latent factor (CLF) approach. CMB occurs when the difference between standardised regression weights in models with and without the CLF exceeds 0.20. The results of the current study indicate that CMB was not present in the data, as the observed difference was below 0.20. Therefore, no concerns regarding CMB were identified.

5.4 Structural model

The collected data underwent analysis using structural equation modelling (SEM) conducted through AMOS (26.0). Maximum likelihood estimation (MLE) was employed along with the bootstrapping method, utilising 2,000 bootstrap replicates for result assessment. The direct relationships among the four constructs were examined within the hypothesised model. The goodness-of-fit indices indicated that the model fit was acceptable: CMIN/DF: 1.903; GFI: 0.855; AGFI: 0.846; NFI: 0.926; TLI: 0.962; CFI: 0.963; RMSEA: 0.033; SRMR: 0.035 (Hair et al., 2010).

Detailed path information of the structural model can be found in Table 4. The findings demonstrated that E-CRM had a significant positive impact on customer loyalty ($\beta = 0.185$, $p < 0.05$), thus confirming H1. Furthermore, the effects of E-CRM on customer experience ($\beta = 0.437$, $p < 0.05$) and customer satisfaction ($\beta = 0.276$, $p < 0.05$) were also significant, supporting H2 and H3 respectively. A positive relationship was observed between customer experience and customer satisfaction ($\beta = 0.358$, $p < 0.05$), thus validating H4. Additionally, the relationship between customer experience and customer loyalty was found to be significant ($\beta = 0.253$, $p < 0.05$), confirming H5. Likewise, a significant positive relationship was identified between customer satisfaction and customer loyalty ($\beta = 0.169$, $p < 0.05$), thereby validating H6. Consequently, all six proposed direct hypotheses were accepted in this study. Figure 2 illustrates the results of the structural model.
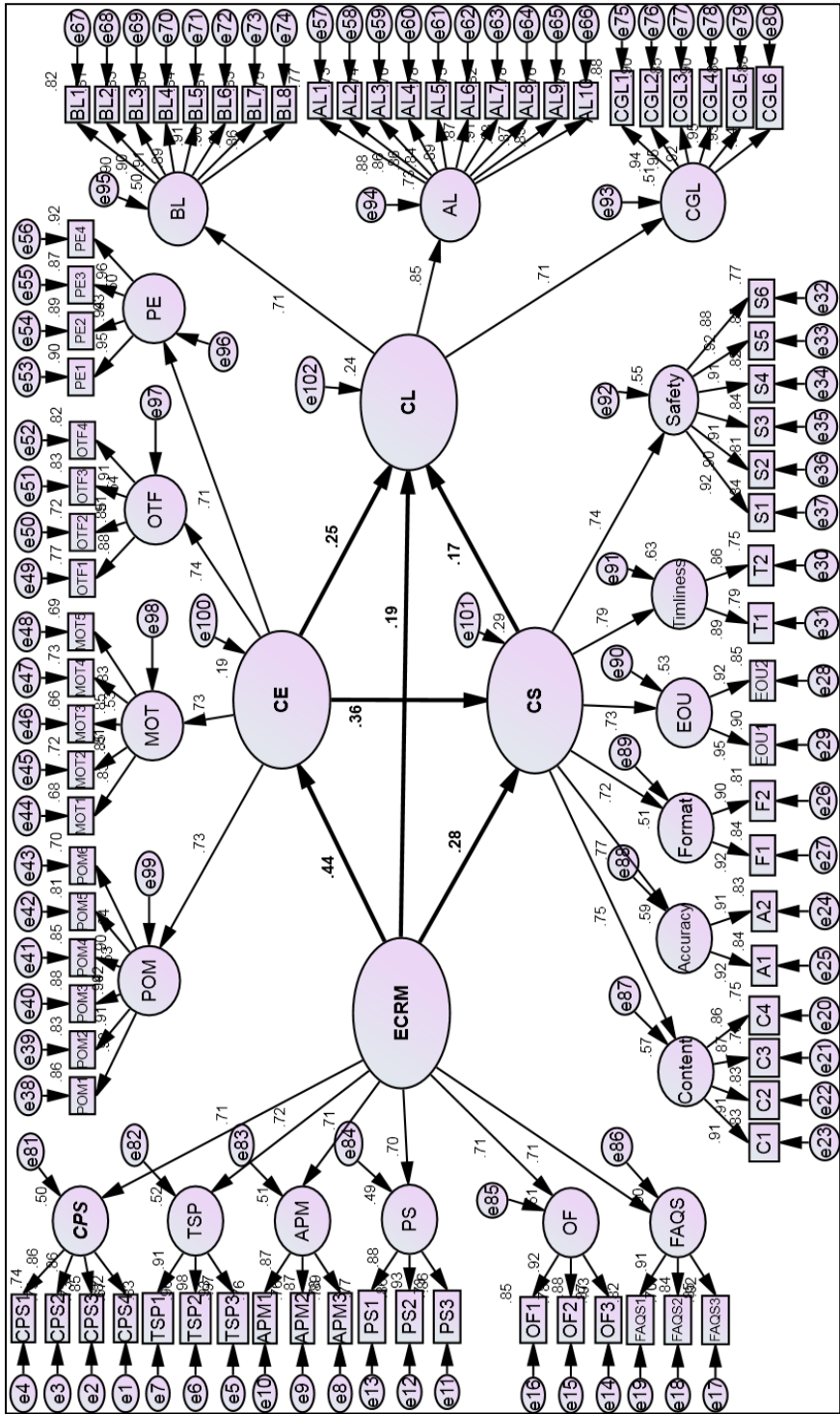
Figure 2   Structural model

Table 4   Direct hypotheses testing results

Hypotheses	Estimates	S.E.	P-value	Remarks
H1: E-CRM – CL	0.185	0.055	0.002	Supported
H2: E-CRM – CE	0.437	0.044	0.001	Supported
H3: E-CRM – CS	0.276	0.048	0.001	Supported
H4: CE – CS	0.358	0.061	0.001	Supported
H5: CE – CL	0.253	0.050	0.001	Supported
H6: CS – CL	0.169	0.060	0.001	Supported

Notes: CE = customer experience; CS = customer satisfaction; CL = customer loyalty.
       Source: Author's own

5.5   Mediation results

The mediation analysis was conducted (Table 5) between E-CRM and customer loyalty by taking both the customer experience and customer satisfaction as the mediating variables simultaneously. To investigate the mediation effects, many scholars in the past have followed the suggestions of the mediation tests recommended by Baron and Kenny test and Sobel test. However, recently, scholars suggested that only the significance of indirect effects is considered sufficient for the mediation effect to take place and the mediation analysis through the bootstrapping procedure is considered more superior and appropriate than Baron and Kenny test and Sobel test (Hayes, 2009; Mathieu and Taylor, 2006; Preacher and Hayes, 2008; Zhao et al., 2010).

Table 5   Specific indirect effects

Paths	Standardised estimates (Beta)	Bias-corrected confidence interval		Remarks
		LLCI	ULCI	
E-CRM → CE → CL (a)	0.111*	0.073	0.194	H7 supported
E-CRM → CS → CL (b)	0.047*	0.025	0.089	H8 supported
E-CRM → CE → CS → CL (c)	0.026*	0.015	0.054	H9 supported
Total indirect effects (a + b + c)	*0.184**	*0.117*	*0.277*	

Notes: CE = customer experience; CS = customer satisfaction; CL = customer loyalty;
       LLCI = lower limit confidence interval; ULCI = upper limit confidence interval.
       *p < 0.05.

The results depicted that customer experience mediated the relationship between E-CRM and customer loyalty as the indirect effect of customer experience on the relationship between E-CRM and customer loyalty was found to be significant and positive ($\beta = 0.111$, $p < 0.05$). Thus, H7 was supported. Also, it was found that customer satisfaction mediated the relationship between E-CRM and customer loyalty as the indirect effect of customer satisfaction on the relationship between E-CRM and customer loyalty was found to be significant and positive ($\beta = 0.047$, $p < 0.05$). Therefore, H8 was supported. Subsequently, the results revealed that both customer experience and customer satisfaction serially mediated the relationship between E-CRM and customer loyalty as the indirect effects of customer experience and customer satisfaction on the relationship

between E-CRM and customer loyalty was found to be significant and positive ($\beta = 0.026$, $p < 0.05$). Hence, both the mediators were causally influencing each other, i.e., customer experience leads to customer satisfaction, thus forming a sequential path. Thus, H9 was also supported. As a result, in the current study, all three indirect hypotheses were also found to be supported.

6   Discussion

The present research makes a valuable contribution to the existing literature on E-CRM, customer experience, customer satisfaction, and customer loyalty. It adopts the S-O-R model as a theoretical framework to explore the impact of E-CRM on customer loyalty, with customer experience and customer satisfaction acting as mediating variables in the banking industry context. The S-O-R model asserts that stimuli, represented by environmental attributes such as E-CRM, elicit cognitive and emotional responses from customers, ultimately resulting in behavioural outcomes, namely customer loyalty.

The findings of this study demonstrate a significant positive relationship between E-CRM and customer loyalty. Despite studies conducted by Ismail and Hussin (2017) and Nurrohman et al. (2023) suggesting that E-CRM has no impact on customer loyalty, our research findings align with previous research such as Al-Shoura et al. (2017), Kumar and Mokha, (2020), Mangunyi et al. (2018), Mokha and Kumar, (2022), Sokmen and Bas (2019), Tariq et al. (2019). By investing in E-CRM, companies can establish and nurture enduring relationships with their customers, facilitating seamless interactions and effective communication. Mang'unyi et al. (2018) argue that when banks invest in the proper implementation of E-CRM services, customers recognise the efforts made by their banks, leading to strengthened customer-bank relationships and an enhanced loyal customer base. E-CRM enables banks to deliver personalised experiences, enhance communication, gain insights into customer behaviour, and establish enduring relationships. By tailoring products and services to individual preferences, providing seamless interactions, and leveraging customer data, banks can improve customer satisfaction, trust, and loyalty. The effective implementation of E-CRM strategies contributes to long-term customer relationships, repeat business, and positive word-of-mouth referrals, offering a competitive edge in the market (Liu et al., 2022). Therefore, based on the findings of this study, H1 is supported, indicating a positive relationship between E-CRM and customer loyalty.

Regarding the second hypothesis, it was found that E-CRM has a significant and positive influence on customer experience. This hypothesis (H2) was confirmed as establishing strong relationships with customers involves creating positive and memorable experiences. Customers feel delighted when they perceive that their banks offer them the best products, services, and solutions to their problems. Customer experience has become increasingly important, as highlighted by Gartner (2021), emphasising that E-CRM facilitates seamless and positive experiences for customers. Mokha and Kumar (2022) specifically noted that enhancing E-CRM technology enables the cultivation of memorable experiences by providing companies with a comprehensive understanding of their customers' purchasing behaviour. Existing literature provides robust evidence for the positive association between E-CRM and customer experience. Studies such as Klaus and Maklan (2013), Cajestan (2018), Kumar et al. (2022), Kamath et al. (2019), and Mokha and Kumar (2022), have consistently demonstrated the impact

of E-CRM on enhancing customer experience. These studies highlight that E-CRM technologies enable banks to offer personalised and customised products and services, which result in positive and memorable experiences for customers. By leveraging E-CRM tools, banks can capture a 360-degree view of their customers, enabling them to understand customer needs, preferences, and behaviours. E-CRM provides banks an opportunity to customise their communications with customers, offering them relevant services and content, responding to their problems swiftly, and making sure that none of their questions remain unanswered and unresolved (Kumar et al., 2022). This deep understanding allows banks to tailor their interactions and provide seamless experiences across various touchpoints (Sivakumar and Ganeshkumar, 2022). As a result, providing such experiences has become of utmost importance for sustainable business performance. Overall, the extant literature supports the proposition that E-CRM positively influences the customer experience. Therefore, we support H2.

Third, E-CRM exhibits a significant positive influence on customer satisfaction. When customers express contentment with the services provided by their banks, it strengthens the bond between service providers and customers. E-CRM plays a vital role in nurturing enduring relationships with customers and fostering the growth of digital platforms, leading to enhanced levels of customer satisfaction. Kumar and Mokha (2022) emphasised that E-CRM helps in building and sustaining long-lasting relationships with customers, leading to enhanced customer satisfaction. The consistent findings across various studies support the notion that E-CRM plays a vital role in fostering customer satisfaction by meeting customer expectations and delivering high-quality services. According to Dehghanpouri et al. (2020), promptly addressing customer inquiries, efficiently resolving errors, and effectively solving problems contribute to customer satisfaction and foster enduring relationships. Although a study by Tariq et al. (2019) challenges the relationship between E-CRM and customer satisfaction, the finding of this research concurs with prior research conducted by Abdulfattah (2012), Al-Dmour et al. (2019), Kumar et al. (2022), Mang'unyi et al. (2018), Mokha and Kumar (2022), and Upadhyaya (2020). These studies have demonstrated that the proficient implementation of E-CRM technology enhances companies' capacity to deliver personalised and improved services to their customers, resulting in higher levels of customer satisfaction. Consequently, H3 is also supported.

Fourth, the relationship between customer experience and customer satisfaction is found to be positive. The research findings echo the previous literature (Cajestan, 2018; Chahal and Dutta, 2014; Kamath et al., 2019; Klaus and Maklan, 2013; Kumar et al., 2022); Kumar and Mokha, 2022; Leva and Ziliani, 2018; Nobar and Rostamzadeh, 2018; Saini and Singh, 2020). The primary concern for marketing managers in today's business landscape is to prioritise customer experience to ensure customer satisfaction. To achieve optimal levels of satisfaction, both internally and externally, it is imperative to allocate greater attention to enhancing the customer experience (Kamath et al., 2019). Evaluating customer experience empowers banks to analyse the factors that contribute to customer satisfaction and dissatisfaction, enabling them to leverage this information to enhance the overall customer experience (Kumar and Mokha, 2022). By using this knowledge, banks can effectively fulfill customer expectations and continually enhance the quality of their services. When customers have a positive and memorable experience with the service provider, their satisfaction level tends to increase (Cajestan, 2018). Thus, H4 is also supported.

Fifth, the relationship between customer experience and customer loyalty is also found to be positive and significant in this study which corroborates with the past literature (Brun et al., 2017; Cajestan, 2018; Kamath et al., 2019; Klaus and Maklan, 2013; Kumar and Mokha, 2020; Leva and Ziliani, 2018; Mokha and Kumar, 2022; Nobar and Rostamzadeh, 2018; and Srivastava and Kaul, 2016). Customer experience is considered an important strategic requirement to survive in this highly competitive environment. The loyalty of the customers enhances with the optimistic and remarkable experiences they incurred with their service providers (Leva and Ziliani, 2018). Customers these days no longer base their loyalty solely on products or prices; instead, their allegiance is rooted in the quality of the experience they encounter (Klaus and Maklan, 2013). The prosperity of any business hinges upon fostering a positive customer experience, as satisfied customers, are more inclined to become loyal patrons, consequently boosting the company's revenue. Consequently, banks are diligently directing their efforts towards establishing and nurturing robust customer engagement and enduring customer experiences that create satisfaction and loyalty towards their products, services, or brand. Effectively managing the customer experience enables banks to adopt a comprehensive approach that encompasses attracting, retaining, and adding value to their customers (Clemes et al., 2019). When customers have a favourable experience with their banks, they are more likely to exhibit loyalty and recommend the institution to their friends and family, effectively mitigating the impact of switching behaviour. Hence, H5 is supported.

Sixth, customer satisfaction has a significant positive impact on customer loyalty. Customer loyalty is often attributed to customer satisfaction, as highlighted by Hosseini and Shahmoradi (2016). The extent of customer satisfaction with the products, services, or experiences provided by their service providers significantly influences their loyalty. When customers are exceptionally pleased and content with the services offered by their banks, they are more inclined to repurchase and share positive word-of-mouth endorsements about the service and its provider, thereby fostering customer loyalty (Kamath et al., 2019). Nobar and Rostamzadeh (2018) emphasised the importance of customer satisfaction in both online support and core services, as they drive desirable purchase intentions and subsequently enhance loyalty. Kamath et al. (2019) emphasised that customer satisfaction is widely acknowledged as a fundamental determinant of long-term consumer behaviour. The level of customer loyalty escalates when customers are delighted and satisfied with the products or services offered by their respective companies (Tahir, 2020). Moreover, Arokiasamy (2013) revealed that while satisfaction can be achieved without loyalty, loyalty cannot be attained without satisfaction. Though the research proposed by Hosseini and Ahmadi Nejad (2009) revealed that there is no relationship between customer satisfaction and customer loyalty and customer satisfaction does not necessarily improves the loyalty of the customers, these research findings are found to be similar to Cajestan (2018), Hayati et al., (2020), Kamath et al., (2019), Kumar and Mokha (2022), Nobar and Rostamzadeh (2018) and Tahir (2020). Therefore, H6 is accepted.

Seventh, the research findings reveal that customer experience mediates the relationship between E-CRM and customer loyalty. Fostering positive customer experiences is an indispensable element for the success of any thriving company, as it enables customers to engage in superior, fulfilling interactions with the company. Such positive customer experiences not only cultivate loyalty but also mitigate the risk of customer attrition to rival competitors (Saini and Singh, 2020). Employing E-CRM to

enhance the customer experience confers a competitive edge upon banks, empowering them to fortify their businesses and cultivate a loyal customer base (Kumar et al., 2022). This hypothesis supports the S-O-R model framework, which suggests that E-CRM (stimuli) directly influence customer experience (organism) and subsequently drive behavioural responses (i.e., customer loyalty), hence, customer experience acts as a mediator between E-CRM and customer loyalty. Hence, our findings support H7.

Eighth, the research findings reveal that customer satisfaction mediates the relationship between E-CRM and customer loyalty. E-CRM facilitates enduring customer relationships and drives the evolution of digital platforms, resulting in enhanced customer satisfaction (Oumar et al., 2017). Customer satisfaction stands as the paramount determinant of business success, wherein prompt issue resolution and tailored offerings in line with customers' needs and desires play pivotal roles (Al-Dmour et al., 2019; Kumar and Mokha, 2022). Consequently, this positive customer satisfaction fosters a sense of positive attitude and fulfillment, ultimately cultivating customer loyalty (Hayati et al., 2020). This hypothesis also supports the S-O-R model framework, which suggests that E-CRM (stimuli) directly influence customer satisfaction (organism) and subsequently drives behavioural responses (i.e., customer loyalty), hence, customer satisfaction acts as a mediator between E-CRM and customer loyalty. Despite studies conducted by Ismail and Hussin (2017) and Rashwan et al. (2019) suggesting that customer satisfaction does not play a role between E-CRM and customer loyalty, our research findings align with the existing literature presented by Kumar and Mokha (2022), Mokha and Kumar (2022), Mulyono and Situmorang (2018), Oumar et al. (2017), Rashwan et al. (2019), and Safari et al. (2016). Hence, our findings support H8.

Ninth, the research findings reveal that customer experience and customer satisfaction serially mediate the relationship between E-CRM and customer loyalty. Effective implementation of E-CRM fortifies customer relationships by enabling comprehensive monitoring and tracking of customer interactions and behaviour (Mokha and Kumar, 2021). Leveraging this information, banks can deliver tailored products and services that create positive and memorable customer experiences (Kumar et al., 2022). Customer satisfaction hinges on the quality of the customer experience, as it serves as an outcome of either contentment or discontent. Banks capable of providing an exemplary customer experience not only enhance customer satisfaction and loyalty but also improve customer retention. Consequently, customer experience emerges as a crucial factor in consumer behaviour, fostering the growth of a virtual environment that amplifies customer satisfaction (Upadhyaya, 2020). Enhanced customer satisfaction is directly proportional to the positivity and favourability of the customer experience (Cajestan, 2018), ultimately cultivating greater customer loyalty. This hypothesis also supports the S-O-R model framework, which suggests that E-CRM (stimuli) influence customer experience and customer satisfaction (organisms) and subsequently drive behavioural responses (i.e., customer loyalty), hence, customer experience and customer satisfaction serially mediates the relationship between E-CRM and customer loyalty. Therefore, our findings support H9.

7   Implications

7.1   Theoretical implications

This study represents a significant contribution to the field of E-CRM, as it stands as the foremost examination of serial mediation analysis, exploring the interplay of customer experience and customer satisfaction in the relationship between E-CRM and customer loyalty. To the best of the researcher's knowledge, there is hardly any study undertaken in the past that analyses the influence of E-CRM on customer loyalty through customer experience and customer satisfaction in the banking industry in an isolated model. Furthermore, there exists a noticeable scarcity of studies linking E-CRM to customer experience. Hence, this study endeavours to comprehend the influence of E-CRM on customer loyalty by examining the mediating roles of customer experience and customer satisfaction within a unified framework.

7.2   Practical implications

Indian banks must recognise that successful E-CRM adoption encompasses not only technical solutions but also organisational practices, such as top-level management support, customer orientation, and employee training, which are crucial for attaining competitive advantage. Relying solely on ICT tools will not suffice to enhance customer satisfaction and loyalty. Consequently, banks should place significant emphasis on educating and training their front-line employees to elevate the quality of customer service and foster stronger customer relationships.

To maximise the effectiveness of E-CRM technology, banks should proactively understand and fulfill the unique needs of their customers. Targeting specific customer needs and providing value-added services while actively soliciting and incorporating customer feedback enables continuous engagement. Personalised offers and loyalty programs, allowing customers to earn points for online transactions, can further enhance customer satisfaction and loyalty.

Furthermore, banks should prioritise customer-centric outcomes rather than solely focusing on output. Ensuring convenience for customers and swift resolution of their issues is essential. Monitoring customers' post-experience behaviour enables banks to refine and deliver exceptional customer experiences aligned with customer expectations. Failure to provide high-quality service hinders the development of long-term relationships. Hence, enhancing customer experience, which directly impacts customer satisfaction and loyalty, should be a top priority for banks. This study reinforces the significant influence of customer experience on E-CRM, customer satisfaction, and customer loyalty.

8   Limitations and directions for future research

This research has a few limitations. First, this research is limited to Delhi/NCR, which can be extended to other parts of the states of India or other countries. Second, this study is based on cross-sectional research, i.e., the data has been collected at one point in time which is not possible to examine the causal linkages between the constructs. Future research can use longitudinal data to measure causal linkages. Third, this study has been

undertaken in one service industry, i.e., banking industry which can be extended to other sectors also to increase the generalisability.

References

Abdulfattah, F.H. (2012) *The Effect of Electronic Customer Relationship on Customer Satisfaction a Study on Web Banking in Saudi Arabia*, (PhD Thesis), University of Huddersfield, West Yorkshire, England [online] http://eprints.hud.ac.uk/id/eprint/18098 (accessed 21 January 2019).

Abu-Shanab, E. and Anagreh, L. (2015) 'Impact of electronic customer relationship management in banking sector', *Int. J. of Electronic Customer Relationship Management*, Vol. 9, No. 4, pp.254–271, https://dx.doi.org/10.1504/IJECRM.2015.074196.

Al-Dmour, H.H., Algharabat, R.S., Khawaja, R. and Al-Dmour, R.H. (2019) 'Investigating the impact of ECRM success factors on business performance: Jordanian commercial banks', *Asia Pacific Journal of Marketing and Logistics*, Vol. 31, No. 1, pp.105–127.

Al-Shoura, M.S., Al-Kasasbeh, E. and Rabbai, R.A.Q. (2017) 'Investigating the impact of E-CRM on customer loyalty: A case of B2B (Business to Business Zain's customers) in Zain Company in Jordan', *Humanities and Social Sciences Series*, Vol. 32, No. 4, pp.9–40.

Arjmand, M., Abdolvand, N. and Harandi, S.R. (2023) 'The impact of customer clubs on lifetime value of banking customers', *Int. J. of Electronic Customer Relationship Management*, Vol. 14, No. 1, pp.42–60, DOI: 10.1504/IJECRM.2023.131078.

Arokiasamy, A.A. (2013) 'The impact of customer satisfaction on customer loyalty and intentions to switch in the banking sector in Malaysia', *Journal of Commerce*, Vol. 5, No. 1, pp.14–21.

Brun, I., Rajaobelina, L., Ricard, L. and Berthiaume, B. (2017) 'Impact of customer experience on loyalty: A multichannel examination', *The Service Industries Journal*, Vol. 37, Nos. 5–6, pp.317–340, https://dx.doi.org/10.1080/02642069.2017.1322959.

Cajestan, M. (2018) 'Digital Banking, customer experience and bank financial performance: UK customers' perceptions', *International Journal of Bank Marketing*, Vol. 36, No. 2, pp.23–255 [online] http://shura.shu.ac.ul/15903/ (accessed 25 January 2019).

Chahal, H. and Dutta, K. (2014) 'Measurement and impact of customer experience in banking sector', *Decision*, Vol. 42, https://dx.doi.org/10.1007/s40622-014-0069-6.

Chauhan, S., Akhtar, A. and Gupta, A. (2022) 'Customer experience in digital banking: A review and future research directions', *International Journal of Quality and Service Sciences*, Advance Online Publication, https://doi.org/10.1108/IJQSS-02-2021-0027.

Chen, R., Hsiao, J. and Hwang, H. (2012) 'Measuring customer satisfaction of internet banking in Taiwan: scale development and validation', *Total Quality Management and Business Excellence*, Vol. 23, No. 7, pp.749–767.

Chepur, J. and Bellamkonda, R. S. (2022) 'The role of customer experience in the formation of customer engagement in the retail banking industry: mediation and moderation analysis', *Int. J. of Electronic Customer Relationship Management*, Vol. 13, No. 4, pp.314–341, DOI: 10.1504/IJECRM.2022.126896.

Clemes, M.D., Gan, C. and Zheng, I.Y. (2019) 'Customer switching behavior in the New Zealand banking industry', *Banks and Bank Systems*, Vol. 2, No. 4, pp.50–62.

Damberg, S., Schwaiger, M. and Ringle, C.M. (2022) 'What's important for relationship management? The mediating roles of relational trust and satisfaction for loyalty of cooperative banks' customers', *Journal of Marketing Analytics*, Vol. 10, No. 1, pp.3–18.

Das, S., Mishra, M. and Mohanty, P.K. (2018) 'The impact of customer relationship management (CRM) practices on customer retention and the mediating effect of customer satisfaction', *International Journal of Management Studies*, Vol. 5, Nos. 1–4, p.95, http://dx.doi.org/10.18843/ijms/v5i1(4)/15.

Dehghanpouri, H., Soltani, Z. and Rostamzadeh, R. (2020) 'The impact of trust, privacy and quality of service on the success of E-CRM: THE mediating role of customer satisfaction', *Journal of Business and Industrial Marketing*, Vol. 35, No. 11, pp.1831–1847, https://doi.org/10.1108/JBIM-07-2019-0325.

Donovan, R.J. and Rossiter, J.R. (1994) 'Store atmosphere and purchasing behavior', *Journal of Retailing*, Vol. 70, No. 3, pp.283–294.

Dubihlela, J. and Khosa, P.M. (2014) 'Impact of e-CRM implementation on customer loyalty, customer retention and customer profitability for hoteliers along the Vaal Meander of South Africa', *Mediterranean Journal of Social Science*, Vol. 5, No. 16, pp.175–183, https://dx.doi.org/10.5901/mjss.2014.v5n16p175

Fornell, C. and Larcker, D. (1981) 'Evaluating structural equation models with unobservable variables and measurement error', *Journal of Marketing Research*, Vol. 18, No. 1, pp.39–50.

Fortune Business Insights (2023) 'Customer relationship management market growth' [online] https://www.fortunebusinessinsights.com/customer-relationship-management-crm-market-103418 (accessed 17 August 2023).

Hair, J.F., Jr., Black, W.C., Babin, B.J. and Anderson, R.E. (2010) *Multivariate Data Analysis: A Global Perspective*, New Jersey, Pearson Prentice Hall.

Hamid, A.B.A., Mousavi, S.B. and Partovi, B. (2019) *Managing E-CRM Towards Customer Satisfaction and Quality Relationship*, Partridge Publishing Singapore, Singapore.

Hayati, S., Suroso, A., Suliyanto, and Elfan Kaukab, M. (2020) 'Customer satisfaction as a mediation between micro banking image, customer relationship and customer loyalty', Management Science Letters, Vol. 10, No. 11, pp.2561–2570, https://dx.doi.org/10.5267/j.msl.2020.3.039.

Hayes, A.F. (2009) 'Beyond Baron and Kenny: statistical mediation analysis in the new millennium', *Communication Monographs*, Vol. 76, No. 4, pp.408–420.

Herman, L.E., Sulhaini, S. and Farida, N. (2020) 'Electronic customer relationship management and company performance: exploring the product innovativeness development', *Journal of Relationship Marketing*, Vol. 20, pp.1–19, https://dx.doi.org/10.1080/15332667.2019.1688600.

Hosseini, M.H. and Ahmadi Nejad, M. (2009) 'Examining the effects of customer satisfaction and trust and specific trademark value in customer loyalty and attitudinal behavior: a case study of Refah Bank', *Commerce Review*, Vol. 33, pp.42–51.

Hosseini, S.S., and Shahmoradi, B. (2016) 'Study the impact of Customers' loyalty and satisfaction on bank's financial performance (a case study of Resalat Bank)', *British Journal of Economics, Management and Trade*, Vol. 12, No. 4, pp.1–11.

Ismail, N.A.B. and Hussin, H.B. (2017) 'The effect of E-CRM features on customers' satisfaction for airline E-ticket services in Malaysia', Paper presented at the *Proceedings - 6th International Conference on Information and Communication Technology for the Muslim World, ICT4M 2016*, pp.336–343, https://dx.doi.org/10.1109/ICT4M.2016.67.

Jacoby, J. (2002) 'Stimulus-organism-response reconsidered: an evolutionary step in modeling (consumer) behavior', *Journal of Consumer Psychology*, Vol. 12, pp.51–57, https://dx.doi.org/10.1207/S15327663JCP1201_05.

Jones, T. and Taylor, S.F. (2007) 'The conceptual domain of service loyalty: how many dimensions?', *Journal of Service Marketing*, Vol. 21, No. 1, pp.36–51.

Kamath, P., Pai, Y. and Prabhu, N. (2019) 'Building customer loyalty in retail banking: a serial-mediation approach', *International Journal of Bank Marketing*, Vol. 38, No. 2, pp.456–484, https://dx.doi.org/10.1108/IIJM-01-2019-0034.

Khan, R.U., Salamzadeh, Y., Iqbal, Q. and Yang, S. (2020) 'The impact of customer relationship management and customer reputation on customer loyalty: The mediating role of customer satisfaction', *Journal of Relationship Marketing*, https://dx.doi.org/10.1080/15332667.2020.1840904.

Klaus, P. and Maklan, S. (2013) 'Towards a better measure of customer experience', *International Journal of Market Research*, Vol. 55, No. 2, pp.227–246.

Kotler, P. and Keller, K.L. (2016) *Marketing Management,* 15th ed., Pearson, Noida.

Kranzbühler, A.M., Mirella H.P.K., Robert E.M. and Marije, T. (2018) 'The multilevel nature of customer experience research: an integrative review and research agenda', *International Journal of Management Reviews*, Vol. 20, No. 2, pp.433–456.

Kumar, P. and Mokha, A.K. (2020) 'A study on relationship between electronic customer relationship management (E-CRM) and customer loyalty in the banking industry', Ramanujan *International Journal of Business and Research*, Vol. 5, pp.211–226, http://doi.org/10.51245/rijbr.v5il.2020.224.

Kumar, P. and Mokha, A.K. (2021) 'Relationship between E-CRM, customer experience, customer satisfaction and customer loyalty in banking industry: a review of literature', Research Review *International Journal of Multidisciplinary*, Vol. 6, pp.127–137, http://doi.org/10.31305/rrijm.2020.v06.i02.022.

Kumar, P. and Mokha, A.K. (2022) 'Electronic customer relationship management (E-CRM) and customer loyalty: the mediating role of customer satisfaction in the banking industry', *International Journal of e-Business Research*, Vol. 18, No. 1, pp.1–22, https://doi.org/10.4018/IJBER.293292.

Kumar, P., Mokha, A.K. and Pattnaik, S.C. (2022) 'Electronic customer relationship management (E-CRM), customer experience and customer satisfaction: evidence from the banking industry', *Benchmarking: An International Journal*, Vol. 29, No. 2, pp.551–572, https://doi.org/10.1108/BIJ-10-2020-0528.

Leva, M. and Ziliani, C. (2018) 'Expanding the lens on the customer experience-loyalty link: the role of satisfaction and shopping enjoyment', *Shopper/Consumer Behaviour and Marketing*, pp.206–210.

Liu, R., Ford, J.B. and Raajpoot, N. (2022) 'Theoretical investigation of the antecedent role of review valence in building electronic customer relationships', *Int. J. of Electronic Customer Relationship Management*, Vol. 13, No. 3, pp.187–202.

Mang'unyi, E.E., Khabala, O.T. and Govender, K.K. (2018) 'Bank customer loyalty and satisfaction. The influence of virtual e-CRM', *African Journal of Economic and Management Studies,* Vol. 9, No. 2, pp.250–265.

Mathieu, J.E. and Taylor, S.R. (2006) 'Clarifying conditions and decision points for mediations type inferences in organizational behavior', *Journal of Organizational Behavior*, Vol. 27, No. 8, pp.1031–1056.

Mehrabian, A. and Russell, J.A. (1974) *An Approach to Environmental Psychology*, MIT Press, Cambridge, MA.

Mokha, A.K. and Kumar, P. (2021) 'Using the technology acceptance model (TAM) in understanding customers' behavioural intention to use E-CRM: evidence from the banking industry', *Vision: The Journal of Business Perspective*, Advance Online Publication, DOI: 10.1177/09722629211060565.

Mokha, A.K. and Kumar, P. (2022) 'Examining the interconnections between E-CRM, customer experience, customer satisfaction and customer loyalty: a mediation approach', *Journal of Electronic Commerce in Organizations*, Vol. 20, pp.1–21, DOI: 10.4018/JECO.292474.

Mulyono, H. and Situmorang, S.H. (2018) 'E-CRM and loyalty: a mediation effect of customer experience and satisfaction in online transportation of Indonesia', *Academic Journal of Economic Studies*, Vol. 4, No. 3, pp.96–105.

Nobar, H.B.K. and Rostamzadeh, R. (2018) 'The impact of customer satisfaction, customer experience and customer loyalty on brand power: empirical evidence from hotel industry, *Journal of Business Economics and Management*, Vol. 19, No. 2, pp.417–430, https://dx.doi.org/10.3846/jbem.2018.5678.

Nunnally, J.C. (1978) *Psychometric Theory,* 2nd ed., McGraw-Hill, New York.

Nurrohman, R., Astuti, E.S. and Yulianto, E. (2023) 'The effect of E-CRM implementation and e-service quality on corporate image and customer satisfaction and its impact on customer loyalty', *Profit: Jurnal Adminsitrasi Bisnis*, Vol. 17, No. 2, pp.167–179.

Oliver, R.L. (1999) 'Whence consumer loyalty?', *Journal of Marketing*, Vol. 63, No. 4, pp.33–44.

Oliver, R.L. (2010) *Satisfaction: a Behavioral Perspective on the Consumer*, Routledge, New York, https://dx.doi.org/10.4324/9781315700892.

Otto, A.S., Szymanski, D.M. and Varadarajan, R. (2020) 'Customer satisfaction and firm performance: insights from over a quarter century of empirical research', *Journal of the Academy of Marketing Science*, Vol. 48, pp.543–56, https://dx.doi.org/10.1007/s11747-019-00657-7.

Oumar, T K., Mang'unyi, E.E., Govender, K.K. and Rajkaran, S. (2017) 'Exploring the e-CRM – e-customer- loyalty nexus: a Kenyan commercial bank case study', *Management and Marketing Challenges for the Knowledge Society*, Vol. 12, No. 4, pp.674–696.

Pine, B.J. and Gilmore, J.H. (1999) *The Experience Economy*, Harvard Business School Press, Boston, MA.

Preacher, K.J. and Hayes, A.F. (2008) 'Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models', *Behavior Research Methods*, Vol. 40, No. 3, pp.879–891.

Raina, S., Chahal, H., Klaus, P. and Dutta, K. (2019) 'Customer Experience and its marketing outcomes in financial services: a multivariate approach: some applications', *Understanding the Role of Business Analysis*, pp.119–143, https://dx.doi.org/10.1007/978-981-13-1334-9_7.

Rashwan, H.H., Mansi, A.L., and Hassan, H.E. (2019) 'The impact of the E- CRM (expected security and convenience of website design) on e-loyalty field study on commercial banks', *Journal of Business and Retail Management Research (JBRMR)*, Vol. 14, No. 1, pp.106–122.

Reichheld, F.F. (1996) 'Learning from customer defections', *Harvard Business Review*, Vol. 74, No. 2, pp.56–67.

Safari, M., Forouzandeh, M. and Safahani, N. (2016) 'An empirical model to explain the effects of electronic customer relationship management on customer e-satisfaction and e-loyalty: evidence from iranian service shopping websites', *Journal of Internet Banking and Commerce*, Vol. 21, No. 2, pp.1–11.

Saini, S. and Singh, J. (2020) 'Managing customer loyalty: An expanded model of customer experience management and customer loyalty', *International Journal of Asian Business and Information Management*, Vol. 11, No. 1, pp.21–47, https://doi.org/10.4018/IJABIM.2020 010102.

Sasono, I., Suroso, and Novitasari, D. (2021) 'A study on relationship between e-marketing, e-CRM and e-loyalty: evidence from Indonesia', *International Journal of Data and Network Science*, Vol. 5, pp.115–120, https://doi.org/10.5267/j.ijdns.2021.2.003.

Sautter, P., Hyman, M.R. and Lukosius, V. (2004) 'E-tail atmospherics: a critique of the literature and model extension', *Journal of Electronic Commerce Research*, Vol. 5, No. 1, pp.14–24.

Schmitt, B. (1999) 'Experiential marketing', *Journal of Marketing Management*, Vol. 15, Nos. 1–3, pp.53–67, https://dx.doi.org/10.1362/026725799784870496.

Sharma, M., Tiwari, P. and Chaubey, D. S. (2016) 'Summarizing factors of customer experience and building a structural model using total interpretive structural modelling technology', *Global Business Review*, Vol. 17, No. 3, pp.730–741, http://dx.doi.org/10.1177/09721509166 30825.

Shastri, S., Sharma, R. and Sethi, V. (2020) 'An empirical study on influence of e-CRM towards customer loyalty in banking sector', *International Journal of Public Sector Performance Management,* Vol. 6, No. 5, pp.642–652.

Singh, S. and Sirohi, N. (2014) 'Internet banking services as tool of CRM: a study of customer satisfaction in the national capital region, Delhi', *Int. J. of Electronic Customer Relationship Management*, Vol. 8, No. 1, pp.101–118.

Sivakumar. R. and Ganeshkumar, C. (2022) 'Enhancement of touchpoint interactions on customer experience management in the banking sector', *Int. J. of Electronic Customer Relationship Management*, Vol. 13, No. 4, pp.314–341, DOI: 10.1504/IJECRM.2022.126891.

Sokmen, A. and Bas, M. (2019) 'The influence of electronic customer relationship management practices on relationship quality and customer loyalty: a research in airline industry', *Journal of Business Research- Turk*, Vol. 11, No. 1, pp.641–652, https://dx.doi.org/10.20491/isarder.2019.625.

Srivastava, M. and Kaul, D. (2016) 'Exploring the link between customer experience –loyalty-consumer spend', *Journal of Retailing and Consumer Services*, Vol. 31, pp.277–286, https://dx.doi.org/10.1016/j.jretconser.2016.04.009.

SuperOffice (2021) *18 CRM Statistics You Need to Know for 2021*, March 11 [online] https://www.superoffice.com/blog/crm-software-statistics/ (accessed 18 July 2023).

Syahputra, D. and Murwatiningsih (2019) 'Building customer engagement through customer experience, customer trust and customer satisfaction in Kaligung train customers', *Management Analysis Journal*, Vol. 8, No. 4, pp.350–359.

Tahir, H.S. (2020) 'Antecedents of customer satisfaction in e-service transactions', *International Journal of Innovation, Creativity and Change*, Vol. 11, No. 2, pp.363–379.

Tariq, M., Jamil, A., Ahmad, M.S. and Ramayah, T. (2019) 'Modeling the effectiveness of electronic customer relationship management (E-CRM) systems: empirical evidence from Pakistan', *Journal of Management and Technology*, Vol. 19, pp.77–100, https://dx.doi.org/10.20397/2177-6652/0.v0i0.1747.

Upadhyaya, M. (2020) 'Analysis of E-CRM, service quality and brand trust relationship with student satisfaction', *Humanities and Social Sciences Reviews*, Vol. 8, No. 1, pp.227–232, https://dx.doi.org/10/18510/hssr.2020.8132.

Yadav, M. and Rahman, Z. (2018) 'The influence of social media marketing activities on customer loyalty: a study of e-commerce industry', *Benchmarking: An International Journal*, Vol. 25, No. 9, pp.3882–3905, https://doi.org/10.1108/BIJ-05-2017-0092.

Zhao, X., Lynch, J.G. and Chen, Q. (2010) 'Reconsidering Baron and Kenny: myths and truths about mediation analysis', *Journal of Consumer Research*, Vol. 37, No. 2, pp.197–206, https://doi.org/10.1086/651257.