E-CRM A LEVERAGE TOOL FOR CONSUMERS' RETENTION AN ANALYSIS OF IRAQI CONSUMERS' PERSPECTIVE

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Article history:		Abstract:
		Information and Communication Technology introduced changes in marketing strategies. E-CRM is derivates from the relational marketing approach. It is a critical resolution to retain consumers. E-CRM adopts a consumer-oriented tactic. It anticipates churn rate complications. However, the execution of E-CRM strategies by Iraqi e-commerce is not standardized. A gap results between expectations and practical consequences. This gap is epitomized on a practical and theoretical level. The research aims to highlight the influence of E-CRM on the retention of Iraqi consumers. The quantitative method is used with a hypothetico-deductive approach. It requires the use of an online administered questionnaire. Two steps in collecting and analyzing data are presented. SPSS analyzed the EFA. Findings have proven that E-CRM has a direct positive impact on retention. Five items were retained for consumer loyalty. E-CRM dimensions improve consumer retention. Consumer retention is crucial for e-commerce. Websites should personalize online services and solve online complaints directly.

1. INTRODUCTION

Marketing strategies and procedures continuously evolve, specifically with information technology integration in e-commerce (Khattak, 2022, p 1-5). E-commerce is constantly developing its marketing strategies according to the progress of consumers' demands to retain the most profitable market shares (Li and Zhang, 2021, p 2-4). The progress of Information and Communication Technology has radically altered marketing models. As a result of this vital upheaval, e-commerce organizations touched on the significance of the structure of a lasting relationship with consumers to support these changes (Priansa and Suryawardani, 2020, p 20). ICT has integrated the concept of relationship marketing into the marketing mission. E-CRM (electronic customer relationship management) constitutes a facet of the relational marketing approach and an essential solution to consumer retention (Bahrah and Fachira, 2021, p 350). This marketing approach requires implementing organizational infrastructure and advanced software to face competition (Wibowo and Haryokusumo, 2020, p 199).

E-commerce repeatedly reviews its sales and profits to measure consumer retention (Gordini and Veglio, 2017, p 101). The customer retention rate determines the organizational ability to retain consumers. It avoids overemphasizing long-term projections of profit and loss. This indicator anticipates and limits the problem of consumer loss ("churn rate") (Sahai et al., 2019, p 731). Customer Retention Rate (CRR) indicates an organization's ability to retain consumers effectively (Cong et al., 2022, 1734). It ensures loyal customers and their future purchases. CRR suggests consumer satisfaction through the frequency of new acquisitions, additional purchases, and upgrades. The retention rate is calculated regularly in a specified period to ensure the continuous growth of consumers' portfolios (Feiroz Khan et al., 2019. P 4884).

With the reduction of investment costs in online marketing strategies, small and medium-sized enterprises (SMEs) in Iraq are investing in E-CRM initiatives (AlQershi, Mokhtar, and Abas, 2022, p 517). However, implementing E-CRM and its process by Iraqi SMEs differs from those tactics adopted by international organizations. Small and medium

organizations have a simple and personalized organizational structure. These organizations have a low degree of specialization in marketing (Haudi et al., 2022, p 218-219). Corporate decisions are centralized, and marketing strategies are implicit and not standardized. Managers design strategies according to personal vision, values, and aspirations. The centralization of decisions at the organizational level implements subjective customer-focused procedures (Setyawan, Sfenrianto, and Pratam, 2021, p 1633). Therefore, SMEs never materialize their consumers' orientation approach online. Hence, a gap results between expectations and practical consequences. This gap is epitomized on a practical and theoretical level. Diverse definitions of customer relationship management highlight an absence of a consensus among researchers about the E-CRM concept and its components (Mang'unyi, Khabala, and Govender, 2018, p 251). Besides, dissimilarities in points of view and approaches enlarge this theoretical gap. Practically, E-CRM conditions organizational methods to conceive, accept and practice the customers-centric relationship approaches (Sasono, Suroso, and Novitasari, 2021, p 116).

The research aims to highlight the influence of E-CRM electronic customer relationship management on the retention of Iraqi consumers. Two objectives are underlined. The first objective is to assess the level of CRM application online. The second objective is to measure E-CRM approaches' influence on consumer retention. The impact of these variables is studied in the Iraqi context.

This article studies the dimensions of E-CRM and its influence on consumer retention. A cohesive conceptual framework has been adopted from the study of (Farmania, Elsyah, and Tuori, 2021; Januszewski and Krupcała, 2021; Nurjannah et al., 2022). The framework and its dimensions are elaborated on in the literature review. The research methodology explains the data collection procedures (Wadjdi and Djamin, 2021). The model is empirically tested in the rest of the article, and the results are discussed. Future theoretical perspectives and recommendations are presented at the end.

2. A REVIEW OF THE LITERATURE
Consumer retention indicates CRM implementation and the adoption of suitable loyalty programs. It identifies needed changes to achieve growth goals. To assess organizational growth, evaluating the sales balance sheet and measuring the marketing performance is inefficient. Tracking customer retention is critical for their survival (Nandya and Permana, 2021, p 468).

The consumer retention calculation, therefore, forecasts the results and analyzes customer service performance (Kampani and Jhamb, 2020).

Consumer retention is studied throughout the online purchasing procedure. Online purchase records are possible due to Internet proprieties and statistical analysis (Scutariu et al., 2022). Online analysis characteristics process purchasing activities. Consumers' relationship management programs support the latter. E-CRM provides tactical solutions to encountered consumers' problems in their online purchasing (Dastane, 2020, p 144).

E-CRM is favored as a global organizational strategic logic to manage consumer relationships properly. It creates added value for organizations and consumers. E-CRM is a tangible corporate strategy creating values (Januszewski and Krupcala, 2021, p 1158). E-CRM is a technological solution for launching or developing productive relationships. It intends a long-term relationship requiring a coherent and integrated implementation of human, organizational and technical skills. It requires a holistic view from management and in-depth knowledge of consumers in a multi-channel environment. It necessitates the opposite use of information and successful integration of procedures, resources, and activities (Haryandika and Santra, 2021; A. Dhanalakshmi et al., 2020).

2.1. Consumers Retention
Customer retention is an organizational ability to convince consumers to remain loyal. It is grounded on attraction strategies to prevent them from turning to competitors (Aniba, 2018, p 77). CRR is a valuable indicator of whether consumers are satisfied with the quality of products and services. The benefits of Consumers Retention have reduced costs, notably in marketing and advertising. Customer retention is generally less expensive than acquiring new customers. Consumer retention enhances word-of-mouth. Loyal consumers tend to recommend brands online to family and friends (Alkitbi et al., 2021, p 656). Therefore, CRR has a tangible impact on financial turnover (Darzi and Bhat, 2018).

Consumer retention varies according to the organization. Its definition varies according to products, customer bases, and calculation methodologies (Mondal and Chakrabarti, 2021; Al-Samirae, S. Alshibly, and Alghizzawi, 2020). Consumers retention rate is the percentage measuring the frequency of purchases from the same organization in a specified period (Degbey, 2015, p 12). By calculating the consumer retention rate, e-commerce avoids focusing on consumer acquisition.

This procedure checks the customer's lifetime value. It measures the churn rate. Consumer loss is a failure indicator because it exposes two critical value streams: the deterioration of the deal and a decrease in cash flow. Zaim, Ramdani, and Haddi, 2020 (p 83) endorsed that upgrading retention can increase organizational values. E-commerce is taking action to reduce consumers' churn rate.

Consumer retention in marketing is a process of following up with existing consumers. Its purpose is to sustain purchase continuity (Salem, 2021, p 12). The finest customer retention strategies build lasting relationships with consumers who will become loyal. Consumers spread positive word of mouth within their circle of influence. It transforms them into brand ambassadors. Hence, these loyal consumers deserve to be followed up through effective electronic customer relationship management (Olomu, 2019, p 213).

2.2. E-CRM (Online Customer Relationship Management)

E-CRM is essentially the adaptation of CRM in an e-commerce environment. It creates and maintains an online customer relationship (Muhammad and Rana, 2020, p 185). It is a net-based organization strategy requiring the development of software applications to handle customer relationship management aspects (Al-Gasawneh et al., 2021). The latter embraces customer interaction, marketing support, and customer service (Matthewson, 2020, p 155). E-CRM mainly includes personalization techniques, online loyalty programs, and email marketing techniques. Besides, online consumer support tools and mobile applications are critical (Frempong et al., 2020, p 248).

2.3. E-CRM dimensions

Electronic Customer Relationship Management embraces multiple online channels. It aims to develop a permanent, lucrative, rewarding consumer relationship (Farmania, Elsyah, and Tuori, 2021). Electronic CRM relies on electronically managing the fitness and continuity of this relationship. Its distinctive characteristics can differentiate e-CRM (Alshurideh, 2022, p 326). E-CRM denotes actions and tools to identify consumers' needs. It deepens the relationship between the organizations and consumers to enter new markets, expand their consumer base, strengthen the company-customer links, and retain loyal customers (Melovic et al., 2022).

2.3.1. Perception Of E-Service Quality

Electronic service quality represents the degree to which a website facilitates effective and efficient shopping, purchase, and delivery of products or services. It is a somewhat transactional quality; it includes pre- and post-service experience evaluation elements. Service quality, notably online, is non-concrete (Alshurideh, 2022). Its perception is constructed on service-associated characteristics: intangibility, heterogeneity, inseparability, and perishability. Service quality is demarcated from e-commerce and consumers' perspectives. The gap between perceived benefits and expectations represents service quality from consumers' point of view (Mohammad, 2019, p 3810). From the service provider's point of view, quality refers to the service's physical and technical specifications. Online service quality is perceived as consumer-personal interaction (Wadjdi and Djamin, 2021, p 9).

2.3.2. E-Consumers Values

E-CRM is a customer-oriented strategy based on online navigation and shopping. Indeed, the website supports activities related to managing customer relationships throughout the online purchase process (Dalir et al., 2017, p 18). Online shopping sustains a utilitarian value to consumers. Values incorporate the possibility of accessing different products and brands. Consumers perceive the possibility of comparing great alternatives. Comparator websites assist consumers (Hendrayati et al., 2020). Online shoppers gain experiential or hedonic value through stimulation and positive affect. Consumers must establish direct and personalized contact with e-commerce and online trade (Safari, 2018, p 188). An online store offers many advantages to the Internet user: no need to travel, no time constraints of the store which never closes, and delivery of products directly to their homes. Internet commerce is, therefore, possible to buy anything, anywhere and anytime. Websites must be simple, fast, and practical (Zare and Honarvar, 2021).

2.3.3. E-Complaints Management

Customer complaints management encompasses all the steps a business takes to manage and deal with customer complaints. Complaint management aims to turn negative customer experiences into positive ones, thereby increasing overall customer satisfaction. The management and treatment of complaints and online reviews allow e-commerce to improve profitability (Kakeesh, Al-Weshah, and Al-Ma'aitah, 2021, p 40-45). Consumers have opportunities to express themselves and give their opinion. Marketers are counting on

consumer reviews and online complaints for future decision-making. Consumers' ratings and reviews benefit e-commerce (de Almeida et al., 2017). However, online protests threaten a brand's reputation, sales, and success. Two important points are highlighted in managing online complaints. First, brands responding to negative online reviews positively influence consumers' perceptions and loyalty. Second, online reviews are imperative when launching new products because it reflects brand credibility (A. Afify and A. Kadry, 2019, p 4126).

E-commerce has understood the challenge of adequately managing consumer complaints. Complaints management includes all criticisms consumers have with purchased service/product and any discomfort interrupting their experience. Complaints are compared to the dissatisfaction criterion. Solving online complaints increases satisfaction and improves the quality of products/services (Levy, Duan, and Boo, 2013). Good complaints management change the corporate image in the mind of dissatisfied consumers. Consumer's complaint should be acknowledged. Consumers must be kept informed of complaints progress while avoiding making unrealistic promises. Maintaining consumer contact is essential (Rímoli and De Castro Melo, 2018).

2.3.4. Social Media Trust
Deterioration in consumer trust is the biggest concern of e-commerce and social media platforms (Ayaburi and Treku, 2020, p 172). the study verified that most respondents believe that the security of their personal information is not guaranteed. Echeverría and Mani (2020, p 120) stated that consumers' trust has declined after a hack or data breach affecting e-commerce. Online shoppers don't trust their mobile network provider to secure personal information. The brand's presence leverages this trust (Shareef et al., 2020, p 105).

Trust in social media is illustrated by online qualities specific to the nature of exchanged information (Mainardes and Cardoso, 2019, p 457). Trust is an essential element to integrate to make the connection between online brands and users. Besides, online data security leverage trust. The security of online information involves the protection of users from the risk of fraud and financial loss. Respect for privacy reflects confidence. It implies the protection of personal data. Data privacy and security are exclusive dimensions of social media trust (Christensen, Lovett, and Curiel, 2022, p 214).

2.3.5. E-satisfaction
Online satisfaction is considered a virtual and progressive concept. However, satisfaction with social media is subjective because it varies from person to person (Xiao and Li, 2021, p 16). Consumers' level of satisfaction varies according to their priorities, expectation, and values. The price, quality of the product or service, accessory and similar products, delivery times, and costs combine elements affecting online shoppers' satisfaction (Al-Adwan et al., 2020, p 279).

These attributes represent a part of the satisfaction. However, they affect consumers' purchasing decisions. In addition, Deyalage and Kulathunga (2020, p 165); Jiang et al. (2021, p 6748) declared that consumer satisfaction decreases when their expectations level increases. For example, product quality may be high, yet consumers are dissatisfied due to the gap between expectations and the product received (Deyalage and Kulathunga, 2019; Besalti and Satici, 2022).

2.4. Research Hypotheses
the research hypotheses revolve around the variables to analyze the influence of E-CRM and its dimensions on consumer retention.

2.4.1. E-CRM and Consumers Retention
CRM strategies aim to extend consumers' lifetime, increase retention, and build loyalty. E-commerce is optimizing consumer retention through innovative CRM strategies, namely online. Indeed, E-CRM is beneficial to increase retention rather than betting on acquiring new consumers (Hakim, Fajri, and Faizah, 2021). Therefore, establishing an effective retention strategy is essential to improve brand image. In the long term, E-CRM strategies restrict considerably marketing budget and improve financial performance. Consequently, E-CRM and its dimensions influence consumer retention (Sharmen, 2018; Sain and Kumar, 2015; Kumar, Mokha, and Pattnaik, 2022).
- **H1:** E-CRM has a positive influence on consumer retention.

2.4.2. Perception Of E-Service Quality and Consumers Retention
E-commerce is systematically using websites to influence the consumer decision-making process. The quality of online services plays a vital role in the success and survival of organizations. Managing the quality of the service creates lasting relationships and increases retention (AlQershi, Mokhtar, and Abas, 2022). A positively perceived quality of service influence consumers retention. Several studies have

focused on the relationship between perceived service quality online and consumer retention. In marketing, F showed service quality is an antecedent of retention in the consumer-organization relationship. The marketing literature has dramatically emphasized the connection between e-service quality and retention. Some authors suggested that service quality is a prerequisite for consumer retention (Chi, 2021; Nandya and Permana, 2021; Aloqool et al., 2022).

- **H1.1:** The perception of e-service quality has a positive influence on consumers retention

2.4.3. E-consumer Values and Consumers Retention

A real relationship of cooperation manifests consumer retention. It is the result of value creation. Consumers are natural partners with whom it is possible to cooperate and who will agree to make sacrifices (Farmania, Elsyah, and Tuori, 2021). Establishing such a relationship necessarily involves strengthening consumer values. Perceived value online includes activities demonstrating, developing, and maintaining critical relational exchanges (Wadjdi and Djamin, 2021). E-consumers values in a brand usually result in the creation of satisfied consumers and therefore increase retention (Alkitbi et al., 2021).

- **H1.2.:** E-consumers values have a positive influence on consumers retention

2.4.4. E-complaints Management and Consumers Retention

Request for information, rectification, and/or compensation from the customer and intended for the organization following a dissatisfaction involving the organization's responsibility. Complaints represent a phenomenon related to post-purchase. It responds to consumers' churn if those complaints increase dissatisfaction (Jamali, Mehrabadi, and Pouri, 2017b; Jamali, Mehrabadi, and Pouri, 2017a). Complaints are a valuable source of information to identify churn correction strategies: complaints management remedies problems and raises consumer retention.

- **H1.3:** E-complaints Management has a positive influence on consumers retention

2.4.5. Social media trust and consumers Retention

Social media trust reduces the need to multiply marketing, advertising, or sales expenses. Retaining existing customers is more manageable than acquisition because they already have confidence and trust in products/services. New customers require much more effort. You have to convince them to choose you for the first time. When your customers are loyal to you, they don't just re-purchase products. They also tend to recommend your services to their colleagues, relatives, and friends.

Trust explains variation in decision-making behaviors. Consumers trust in an indicator of loyalty and a guarantee of retention. In consumer behavior, trust facilitates exchanges and creates lasting relationships. Trust often involves cooperative behavior and a tendency to increase retention rate. In consumer behavior, Yuliati, Hurriyati, and Adieb Sultan (2021), Padeli et al. (2019), and Yang and Babapour (2022) showed that consumer trust in the brand or retailer generates retention.

- **H1.4:** Social media trust has a positive influence on consumers retention

2.4.6. E-satisfaction and Consumers Retention

Loyalty is the act of building customer loyalty. It largely depends on the level of customer satisfaction. Indeed, Smith, Shock, and Beaves (2019) found a link between satisfaction and retention. Tahir, Waggett, and Hoffman (2013) found that customer characteristics moderate this link between e-satisfaction and retention. On the other hand, Al-Gasawneh et al. (2021); Astuti and Indriastuti (2021) find that even if the link between e-satisfaction and loyalty is globally significant, it is still not linear.

Furthermore, Sahai et al. (2019), Cong et al. (2022), and Feiroz Khan et al. (2019) have concluded that loyalty programs do not affect customer retention. It is about perfecting a customer's satisfaction during his first purchase to build loyalty over the long term. Therefore, it encourages the buyer to repeat the purchase using an appropriate strategy. The best way to optimize customer retention is to know your exact customer satisfaction rate.

- **H1.5:** e-satisfaction has a positive influence on consumer retention.

2.5. Conceptual Model

Based on a literature synthesis, critical factors of E-CRM were studied (Farmania, Elsyah, and Tuori, 2021); (Januszewski and Krupcała, 2021); (Nurjannah et al., 2022). Khurniasari and Rahyadi (2021) have integrated E-CRM as customer-oriented activity and its influence on consumer retention. Consequently, the conceptual model (figure 1) is proposed to explain the impact of E-CRM determinants and consequences on consumer retention. The conceptual framework is nourished by past work. According to this perspective, electronic customer relationship management refers to

a customer-oriented strategy using a website to   achieve marketing objectives.
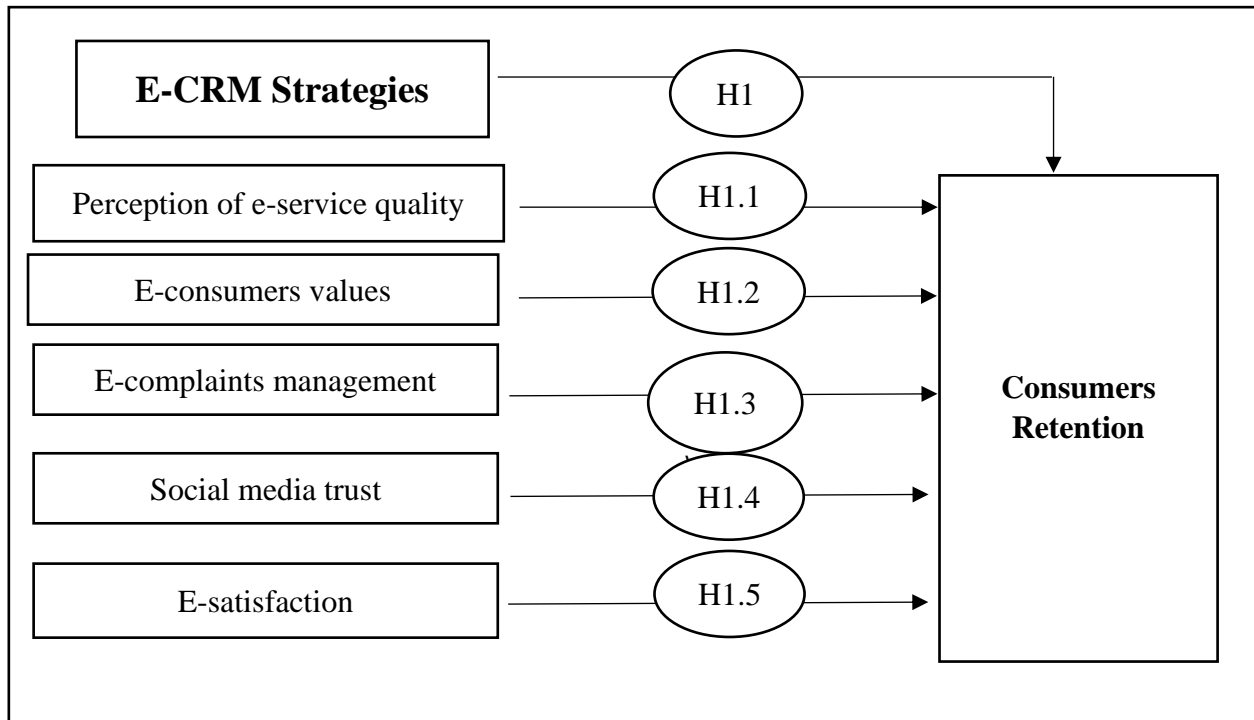

Figure 1. Conceptual Framework (Kavita, 2016; Dubihlela and Molise-Khosa, 2014; Jarrah et al., 2020; Herman, Sulhaini, and Farida, 2021)

3. RESEARCH METHODOLOGY

The quantitative method is used in this article with a descriptive mode of statistical analysis, the tool which is "the questionnaire. The unit of analysis is the Iraqi enterprises engaged in an E-CRM electronic customer relationship management approach. Those organizations have a website containing features that support customer relationship management activities throughout the online purchase process (before and post-purchase). Iraqi consumers assess these E-CRM activities. This study is based on a quantitative survey. The hypothetico-deductive approach required the use of a questionnaire. This tool was used to save time and effort in data collection. The latter is positively correlated with the questionnaire online administration. The online self-administrated questionnaires are legitimized by many respondents and their scattered presence in Iraqi territory. It aims to give participants greater autonomy while avoiding biases. Professors from Lebanese and Iraqi universities validated the questionnaire content. A pre-test phase on 30 individuals was implemented to refine the questionnaire's content.

The sampling method was convenience sampling. Convenience sampling was therefore chosen because it is applicable under these conditions. As the study progressed, 83 questionnaires were discarded. The questionnaires collected correspond to Iraqi consumers. Measures of the research were extracted from past work and adapted to the Iraqi context. They are multi-item measured on a five-point Likert scale. Although the E-CRM definition, in its broadest conception, has several applications based on online platforms, this research has concentrated on E-CRM through website use and online shopping. Websites are reasonably widespread in Iraqis and are well known to online shoppers. Websites are beneficial for studying consumer relationship management through the online purchasing process.

4. FINDINGS AND ANALYSIS
4.1. Descriptive Statistics

The description of the data is an essential step in the analysis process. The metric variables are the standard deviation, mean, minimum, and maximum values. Besides, the symmetry and shape of the distribution are measured by skewness and kurtosis. The

skewness coefficient measures the asymmetry of a distribution. A normal distribution is symmetric.

Table 1. Descriptive Statistics

	Minimum	Maximum	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Perception of e-service quality	1.00	5.00	3.4306	.68170	-.632	.126	.625	.252
E-consumers values	1.00	5.00	3.0710	.61947	-.318	.126	.522	.252
E-complaints management	1.00	5.00	3.0435	.73109	-.309	.126	.112	.252
Social media trust	1.00	5.00	3.0538	.70875	-.430	.126	.405	.252
E-satisfaction	1.00	4.75	2.8931	.73342	-.123	.126	-.044	.252
Consumers loyalty	1.00	5.00	3.0984	.81370	-.423	.126	-.152	.252
Valid N (listwise)								

The kurtosis coefficient measures the degree of concentration of the observations in the curve tails. The kurtosis coefficient for a normal distribution can have a perfect normality with a 0 value. Kurtosis and skewness coefficients ensured that variables followed a normal distribution. These coefficients reflect that the variable follows a normal law. The estimation showed that the coefficient of symmetry or skewness is less than 1.

A principal component analysis was carried out to check the dimensionality of variables. The PCA verified that E-CRM is multi-dimensional. The first step in PCA eliminated the e-satisfaction and many items from other dimensions. This construct was eliminated due to its poor quality of representation. Other constructs were retained because their eigenvalue is greater than 1. The cumulative Variance is close to 60%, greater than 50%. The KMO and Cronbach's alpha coefficients are more significant than 0.6.

4.2. Principal Factor Analysis

Table 2. A measure of Sampling Adequacy (E-CRM Dimensions)

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin.		.901
Cronbach alpha		0.888
Bartlett's Test of Sphericity	Approx. Chi-Square	2245.937
	df	136
	Sig.	.000

The dimensions were checked through a principal component analysis using the eigenvalue rule greater than one and a factor contribution of at least 0.50. A varimax rotation for the factorial axes increased the clarity of the solution.

Table 3. Total Variance Explained (E-CRM Dimensions)

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.138	36.107	36.107	6.138	36.107	36.107
2	1.648	9.694	45.802	1.648	9.694	45.802
3	1.321	7.773	53.575	1.321	7.773	53.575
4	.999	5.875	59.450	.999	5.875	59.450
5	.859	5.051	64.501			

The PCA (Principal Component Analysis) translated results into a clear factorial structure. Four components explained a variance of 59.4%. Table (4) displays the retained components after the varimax rotation.

Table 4. Rotated Component Matrix (E-CRM Dimensions)

		Component			
		1	2	3	4
E-Complaints Management	Consulted websites have a quick response to solve problems directly online	0.738			
	Complaints officers are experienced with good knowledge of the problem solving	0.711			
	Websites responsible for communicating with consumers when a negative comment is posted	0.711			
	Websites pay attention to consumers' suggestions.	0.699			
Social Media Trust	The website treats you as a partner.		0.810		
	As an online shopper, I believe that websites are trying to preserve data security and privacy during and after transactions.		0.651		
	I trust the information provided by the service employee.		0.643		
	I always validate contemporary information (new) by consulting social media sources		0.566		
	I prefer cash on delivery because I don't trust websites with my debit card number		0.500		
Consumers E-Values	Websites meet my needs and desire well.			0.740	
	Social media and shopping applications provide a high value for money			0.730	
	Websites fulfill promises and commitments to their consumers			0.668	
	I prefer one site over another due to its constant discounts			0.624	
Perception Of E-Service Quality	The speed in providing online services distinguishes websites				0.764
	The excellent treatment I receive prompts me, as the customer, to stick to the same websites.				0.757
	The website is easy to use. Its navigation system has leading points to follow				0.699
	I Prefer shopping from websites for their speed and quality of service				0.572
	Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.				
	a. Rotation converged in 5 iterations.				

Table (4) excluded the E-satisfaction and its four items. This dimension was discarded due to its low communalities. It has factorized the perception of e-service quality into four items. Besides, four constructs out of five were retained for e-complaint management. The component matrix of consumer loyalty is exhibited in table 5. The total variables of 24 items for E-CRM will be the subject of a CFA.

Table 5. Component Matrix (Consumers Loyalty)

	Component
Determinant: 0.114 Cumulative Eigenvalue: 62.7%	1
I am constantly willing to buy products from the same website and shopping application.	0.759
I defend a particular site when some criticize it wrongly	0.723
I have loyalty to a specific site over another because of its promotional methods.	0.747
I have the intention to continue purchasing from social media	0.856
I always recommend my friends and relatives to buy from the preferred websites (I usually purchase from it)	0.866

The principal factor analysis for consumer loyalty (dependent variable) has resulted in the retention of five items. These items have a high determinant (higher than 0.5). Hence, these five items contribute to 62.4% of the information explained in the dependent variable. The cumulative eigenvalue out weighted at 50%.

The reliability of components was checked to select items that were kept for the rest of the analyses. Each dimension's reliability and validity were assessed by calculating the corresponding KMO and Cronbach's alpha. Valid components had reliability higher than 0.6. Other dimensions with a value of less than 0.60 should be excluded.

Table 6. EFA Outcomes

Variables	Cronbach alpha	KMO	SIG.	The initial number of items	Items after EFA
E-CRM	0.888	0.900	0.00	**24**	**17**
E-complaints management	.797	0.762	0.00	5	4
Social media trust	0.800	0.827	0.00	5	5
E-consumers values	0.753	0.758	0.00	5	4
Perception of e-service quality	0.704	0.711	0.00	5	4
E-satisfaction	----	-------	------	4	0
Consumers loyalty	0.849	0.830	0.00	**5**	**5**

Table (6) authenticated the multidimensionality of the E-CRM (independent variable). The EFA dissected and validated item numbers for each dimension. E-satisfaction has been eliminated. Consumer loyalty reached excellent validity and reliability with all its five items.

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4.3. Constructs Correlations
The correlation matrix illustrates the correlation values. It measures the degree of a linear relationship between variables as pairs. Correlation values can range from -1 to +1. If both variables tend to increase and decrease simultaneously, the correlation value is positive

Table 7. Correlations Matrix

		E-complaints management	Social media trust	E-consumers values	Perception of e-service quality
Social media trust	Pearson Correlation	.641**	1		
	Sig. (2-tailed)	.000			
	N	372	372		
E-consumers values	Pearson Correlation	.472**	.578**	1	
	Sig. (2-tailed)	.000	.000		
	N	372	372	372	
Perception of e-service	Pearson Correlation	.377**	.414**	.409**	

quality	Sig. (2-tailed)	.000	.000	.000	
	N	372	372	372	
Consumers loyalty	Pearson Correlation	**.490****	**.613****	**.609****	**.417****
	Sig. (2-tailed)	**.000**	**.000**	**.000**	**.000**
	N	**372**	**372**	**372**	**372**

The Pearson correlation of 0.49 with a Sig. <0.05 validates the existence of a positive linear relationship between e-complaints management and consumer loyalty. Table (7) also validates a positive relationship between social media trust, e-consumers values, the perception of e-services quality, and consumer loyalty. The latter is determined because the correlation coefficient is statistically significant. The p-value is compared to the significance level. A significance level (denoted alpha or α) of 0.05 works well.

4.4. Hypotheses verification

This section describes the verification of the second group of hypotheses. Linear multiple regression analysis has been presented in details. Accordingly, this section provides a table summarizing whether the study's hypotheses are supported or rejected. This table provides the R, R-square (R^2), and the standard error of estimation, which can determine the regression model's relevance to the data. The multiple correlation coefficient, R, can be considered as a measure of the predictive quality of the dependent variable.

Table 8. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.699[a]	.489	.484	.58474

Table ANOVA (Analysis of Variance) shows the overall relevance/acceptance of the model from a statistical perspective. It indicates that the difference explained by the model is not due to chance. Since the significance value of the F-statistics presents a value of (000), which is less than $p < 0.05$, the model is significant.

Table 9. ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	120.152	4	30.038	87.849	.000[b]
	Residual	125.487	367	.342		
	Total	245.639	371			

Table (9) calculated value of (F) amounted to (87.849), with a significance of (0.000), and under the degrees of freedom (4) and (367), which is smaller than the level of significance (0.01) combined in the dependent variable (customer retention) was statistically significant, and the coefficient of determination (R2) explained (69%) of the contributions made in customer retention.

Table 10. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.030	.181		4.164	.000
	Perception of e-service quality	.116	.054	.097	2.138	.000
	E-consumers values	.182	.064	.138	2.841	.000
	E-complaints management	.078	.058	.070	1.340	.000
	Social media trust	.286	.064	.249	4.456	.000
a. Dependent Variable: consumers loyalty						

Through Table (10), we note that the value of unstandardized beta for each of the dimensions

Perception of e-service quality, E-consumers values, E-complaints management, social media trust amounted

to (0.030, 0.116, 0.182, 0.78, 0.286), respectively, which is statistically significant. It has a significance of (0.000), which is less than the level of significance (0.01). the influence of the independent variables influences the dependent variable and this influence is statistically significant. These results indicate the rejection of the five sub-null hypotheses and the acceptance of the alternative hypotheses. The results are summarized as follows.

- **H1:** E-CRM has a positive influence on consumer retention.
- **H1.1:** The perception of e-service quality has a positive influence on consumers retention
- **H1.2.:** E-consumers values have a positive influence on consumers retention
- **H1.3:** E-complaints Management has a positive impact on consumers retention
- **H1.4:** Social media trust has a positive influence on consumers retention

4.5. Discussions And Interpretations

The objective of this article was to investigate the influence of E-CRM and its five dimensions on consumer loyalty. Findings have proven that electronic customer relationship management has a direct positive impact on retention. The EFA had a clear vision of constructs. The majority of items were retained. 17 out of 24 items were kept for E-CRM and its dimensions as independent variables. However, only the e-satisfaction was eliminated. The five items were retained for consumer loyalty as the dependent variable.

In conclusion, E-CRM leverages the power of e-commerce to capture and retain consumers. Indeed, the analyzed E-CRM dimensions improve consumer retention. Consumers use different channels such as email, social media, and online posts to complain or communicate with online brands. E-complaints management has the most substantial influence as electronic customer relationship management is proven to have the highest impact on consumer retention. Besides, brand trust on social media represents the brand's credibility and ability to fulfill its obligations regarding the expected functional and technical performance. Veracity means the attribution of loyal motives to online brands.

Leaders must not lose sight of the fact that the E-CRM process integrates the values and needs of customers into organizational culture. It must therefore include listening and evaluation tools to evolve together with consumers. Managers are consequently led to take more interest in all activities' ambitions and expected results. With e-CRM, e-commerce makes the most of Internet technologies in its customer relationship management and maximizes the value of its customer capital. E-CRM involves increased personalization of customer relations, better knowledge of customers, history (average basket, breakdown), and deadlines (contract renewal). The challenge is combining marketing, sales forces, and customer contact points to increase value and customer loyalty. Strengthening commercial efficiency is a concrete objective of return on investment in e-CRM.

5. CONCLUSION AND RECOMMENDATIONS

Consumer retention is crucial for e-commerce. Devoted expenses to acquiring new consumers are high. Organizations are now aware that replacing lost consumers costs more than retaining them. Hence, measuring the influence of these losses helps to anticipate future problems.

E-CRM eases organizational strategies to improve consumer retention rates. Marketing strategies in the age of technology are powerful tools to change consumers' online buying behaviors. E-CRM highlights consumers' preferences and needs. An electronic system increases the quality of customer service and identifies profitable segments. Admittedly, the consumer retention rate is an indicator to be considered in performance reports. It is imperative to analyze it regularly to respond to organizational challenges. E-commerce should balance consumer acquisition and retention.

E-CRM is based on the collection of information relying on intrusive technologies. Once analyzed, it improves strategies, marketing offers, consumer retention, and loyalty. To be successful over the long term, organizations should implement technological strategies to retain consumers. E-commerce should foster online consumer engagement to increase retention chances. Besides, playing the personalization card is essential. Marketers should compose different messages for each target according to their preferences, history, or location). Sending personalized messages can significantly affect the emotional connection with consumers. This passionate feeling increases the organization's relationship and motivates them to re-purchase. With an efficient E-CRM strategy through managing online complaints from the customer, organizations possess vital information about each consumer. Organizations can send them personalized emails or messages. E-commerce should consider offering rewards to consumers. Prizes such as coupons bring consumers back to the organization.

Online bonuses strengthen customers' connections and inspire them to write online reviews.

Improved quality customer service is a retention driver. Chances of consumer retention are increased by offering online quality customer service. Consumers are willing to pay more to be guaranteed a better service experience. E-CRM is an effective strategy for choosing service platforms.

E-commerce should be motivated to share customer reviews on social media platforms. It is essential to share interesting content on social networks to increase the chances of consumer retention. Organizations should prioritize sharing feedback or reviews on social profiles. Consumers' reviews are practical engagement tools. It gives credibility to other shoppers' reviews looking to acquire the same product/service.

E-commerce should enhance consumers' e-satisfaction by planning online interactions. E-CRM software has scheduling features to schedule follow-up calls and emails. Those features improve management capabilities. E-CRM tools meet consumers' expectations with the most outstanding efficiency.

However, this research has some limitations. The scope of the article is reduced to the sole perspective of Iraqi consumers shopping online. This limitation is due to time shortage. Questionnaires were filled out online over the time of four months. Hence, efforts were concentrated on having the questionnaire filled out. Future studies should consider the perspective of e-commerce through interviews (qualitative). Besides, marketers will benefit from longitudinal studies elaborating on the influence of E-CRM on customer loyalty, retention, and online word of mouth. The sample size is a limitation of the empirical research. Indeed, the 372 participants represent validity and reliability for the sample adequacy. However, this sample does not allow the generalization of results to Iraqi consumers as online shoppers. One of the critical conceptual limits of this research is the absence of one chosen brand. The article didn't specify one brand to be studied specifically. Future studies should consider one brand to be reviewed. The brand image represents precise indicators of quality and online perception of E-CRM. Finally, a meta-analysis of recent studies is highly recommended for future research. This analysis will help future research to update the conceptual framework.

REFERENCES

1. A. Afify, E. and A. Kadry, M. (2019) 'Electronic-Customer Complaint Management System (E-CCMS) – a Generic Approach', *International Journal of Advanced Networking and Applications*. doi: 10.35444/ijana.2019.11011.

2. A. Dhanalakshmi *et al.* (2020) 'Technological Advancements in E-Commerce and Customer Relationship Management', *International Journal of Engineering and Management Research*. doi: 10.31033/ijemr.10.6.2.

3. Al- Samirae, Z., S. Alshibly, M. and Alghizzawi, M. (2020) 'Excellence in Drawing up Marketing Mix Strategies for Small and Medium Enterprises (SMEs) and Their Impact on the Marketing Performance', *Business, Management and Economics Research*. doi: 10.32861/bmer.63.30.36.

4. Al-Adwan, A. S. *et al.* (2020) 'Building customer loyalty in online shopping: The role of online trust, online satisfaction and electronic word of mouth', *International Journal of Electronic Marketing and Retailing*. doi: 10.1504/IJEMR.2020.108132.

5. Al-Gasawneh, J. A. *et al.* (2021) 'Mediator-moderator, innovation of mobile crm, e-service convenience, online perceived behavioral control and reuse online shopping intention', *International Journal of Data and Network Science*. doi: 10.5267/j.ijdns.2021.7.001.

6. Al-Hawary, S. I. S. and Alhajri, T. M. S. (2020) 'Effect of electronic customer relationship management on customers' electronic satisfaction of communication companies in kuwait', *Quality - Access to Success*.

7. ALDAIHANI, F. M. F. and ALI, N. A. BIN (2018) 'Effect of Electronic Customer Relationship Management on Electronic Service Quality Provided by the Commercial Banks in Kuwait', *International Journal of Academic Research in Accounting, Finance and Management Sciences*. doi: 10.6007/ijarafms/v8-i2/4239.

8. Alkitbi, S. S. *et al.* (2021) 'Factors Affect Customer Retention: A Systematic Review', in *Advances in Intelligent Systems and Computing*. doi: 10.1007/978-3-030-58669-0_59.

9. de Almeida, G. R. T. *et al.* (2017) 'Improving Social CRM through eletronic word-of-mouth: a case study of ReclameAqui', in *XIVWorkshop de Trabalhos de Iniciação Científic*.

10. Aloqool, A. *et al.* (2022) 'The mediating role of customer relationship management between e-supply chain management and competitive advantage', *International Journal of Data and Network Science*. doi: 10.5267/J.IJDNS.2021.9.002.

11. AlQershi, N. A., Mokhtar, S. S. M. and Abas, Z. Bin (2022) 'CRM dimensions and performance of SMEs in Yemen: the moderating role of human capital', *Journal of Intellectual Capital*. doi: 10.1108/JIC-05-2020-0175.

12. Alshurideh, M. T. (2022) 'Does electronic customer relationship management (E-CRM) affect service quality at private hospitals in Jordan?', *Uncertain Supply Chain Management*. doi: 10.5267/j.uscm.2022.1.006.

13. Aniba, N. (2018) 'An investigation into factors of e-CRM influencing customer retention in Afriqiyah Airways', *Dissertation Abstracts International Section C: Worldwide*.

14. Astuti, S. W. and Indriastuti, H. (2021) 'EXPLOIRING CUSTOMER RELATIONSHIP MANAGEMENT AND CUSTOMER'S VALUE ON CUSTOMER'S LOYALTY OF GO-JEK ONLINE SERVICES', *International Journal of Economics, Business and Accounting Research (IJEBAR)*. doi: 10.29040/ijebar.v5i1.2166.

15. Atulkar, S. and Singh, A. K. (2021) 'Role of psychological and technological attributes on customer conversion to use food ordering apps', *International Journal of Retail and Distribution Management*. doi: 10.1108/IJRDM-09-2020-0349.

16. Ayaburi, E. W. and Treku, D. N. (2020) 'Effect of penitence on social media trust and privacy concerns: The case of Facebook', *International Journal of Information Management*. doi: 10.1016/j.ijinfomgt.2019.05.014.

17. Bahrah, E. N. and Fachira, I. (2021) 'THE INFLUENCE OF E-COMMERCE' MARKETING ON IMPULSIVE BUYING BEHAVIOUR', *Advanced International Journal of Business, Entrepreneurship and SMEs*. doi: 10.35631/aijbes.39023.

18. Besalti, M. and Satici, S. A. (2022) 'Online Learning Satisfaction and Internet Addiction During Covid-19 Pandemic: A Two-Wave Longitudinal Study', *TechTrends*. doi: 10.1007/s11528-022-00697-x.

19. de Bruin, L., Roberts-Lombard, M. and de Meyer-Heydenrych, C. (2021) 'The interrelationship between internal marketing, employee perceived quality and customer satisfaction–a conventional banking perspective', *Cogent Business and Management*. doi: 10.1080/23311975.2021.1872887.

20. Chen, R. R. *et al.* (2020) 'Moving beyond the direct impact of using CRM systems on frontline employees' service performance: The mediating role of adaptive behaviour', *Information Systems Journal*. doi: 10.1111/isj.12265.

21. Chi, N. T. K. (2021) 'Innovation capability: The impact of e-CRM and COVID-19 risk perception', *Technology in Society*. doi: 10.1016/j.techsoc.2021.101725.

22. Christensen, D. J., Lovett, J. and Curiel, J. A. (2022) 'Mainstream Media Recirculation of Trust-Reducing Social Media Messages', *American Politics Research*. doi: 10.1177/1532673X211023931.

23. Cong, P. *et al.* (2022) 'Customer Adaptive Resource Provisioning for Long-Term Cloud Profit Maximization under Constrained Budget', *IEEE Transactions on Parallel and Distributed Systems*. doi: 10.1109/TPDS.2021.3112562.

24. Dalir, M. *et al.* (2017) 'The Role of e-CRM in the Quality of Customer-Bank Relationship', *International Academic Journal of Organizational Behavior and Human Resource Management*.

25. Darzi, M. A. and Bhat, S. A. (2018) 'Personnel capability and customer satisfaction as predictors of customer retention in the banking sector: A mediated-moderation study', *International Journal of Bank Marketing*. doi: 10.1108/IJBM-04-2017-0074.

26. Dastane, O. (2020) 'Impact of Digital Marketing on Online Purchase Intention: Mediation Effect of Customer Relationship Management', *Journal of Asian Business Strategy*. doi: 10.18488/journal.1006.2020.101.142.158.

27. Degbey, W. Y. (2015) 'Customer retention: A source of value for serial acquirers', *Industrial Marketing Management*. doi: 10.1016/j.indmarman.2015.01.002.

28. 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*. doi: 10.1108/JBIM-07-2019-0325.

29. Deyalage, P. A. and Kulathunga, D. (2019) 'Factors Affecting Online Customer Satisfaction: The Sri Lankan Perspective', *International Journal of Business and Management*. doi: 10.5539/ijbm.v14n2p99.

30. Deyalage, P. A. and Kulathunga, D. (2020) 'Exploring Key Factors for Customer Satisfaction in Online Shopping: A Systematic

Literature Review', *International Business Management*.

31. Dubihlela, J. and Molise-Khosa, P. (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 Sciences*. doi: 10.5901/mjss.2014.v5n16p175.

32. Echeverría, M. and Mani, E. (2020) 'Effects of traditional and social media on political trust', *Communication and Society*. doi: 10.15581/003.33.2.119-135.

33. Eltahir, A. M. *et al.* (2021) 'Comparative study of customer relationship management (CRM) and electronic customer relationship management (E-CRM)', *International Journal of Advanced and Applied Sciences*. doi: 10.21833/ijaas.2021.07.001.

34. Farmania, A., Elsyah, R. D. and Tuori, M. A. (2021) 'Transformation of crm activities into e-crm: The generating e-loyalty and open innovation', *Journal of Open Innovation: Technology, Market, and Complexity*. doi: 10.3390/joitmc7020109.

35. Feiroz Khan, T. H. *et al.* (2019) 'Retention rate of customers in banks using neural networks', *International Journal of Engineering and Advanced Technology*. doi: 10.35940/ijeat.A1932.109119.

36. Frempong, J. *et al.* (2020) 'The relationship among customer operant resources, online value co-creation and electronic-word-of-mouth in solid waste management marketing', *Journal of Cleaner Production*. doi: 10.1016/j.jclepro.2019.119228.

37. Goranda, I. R., Nurhayati, P. and Simanjuntak, M. (2021) 'Analysis of Consumer Satisfaction and Loyalty Factors with CRM Approach in Agribusiness E-commerce Company', *Journal of Consumer Sciences*. doi: 10.29244/jcs.6.2.111-128.

38. Gordini, N. and Veglio, V. (2017) 'Customers churn prediction and marketing retention strategies. An application of support vector machines based on the AUC parameter-selection technique in B2B e-commerce industry', *Industrial Marketing Management*. doi: 10.1016/j.indmarman.2016.08.003.

39. Hakim, A. L., Fajri, M. B. and Faizah, E. N. (2021) 'Customer Relationship Management (CRM) Training in Increasing Business Sales During the Covid-19 Pandemic', *International Journal Of Community Service*. doi: 10.51601/ijcs.v1i2.33.

40. Haryandika, D. M. and Santra, I. K. (2021) 'The Effect of Customer Relationship Management on Customer Satisfaction and Customer Loyalty', *Indonesian Journal of Business and Entrepreneurship*. doi: 10.17358/ijbe.7.2.139.

41. Haudi *et al.* (2022) 'The role of e-marketing and e-crm on e-loyalty of indonesian companies during covid pandemic and digital era', *Uncertain Supply Chain Management*. doi: 10.5267/j.uscm.2021.9.006.

42. Hendrayati, H. *et al.* (2020) 'E-Service Quality and Price to Build Online Transportation Loyalty in Indonesia', *GATR Journal of Management and Marketing Review*. doi: 10.35609/jmmr.2020.5.1(2).

43. Herman, L. E., Sulhaini, S. and Farida, N. (2021) 'Electronic Customer Relationship Management and Company Performance: Exploring the Product Innovativeness Development', *Journal of Relationship Marketing*. doi: 10.1080/15332667.2019.1688600.

44. Hu, J. and Chen, X. (2018) 'Study on the satisfaction of consumers with online ordering services and its influencing factors in O2O mode: A microcosmic perspective on the provision of takeout services', *Revista de Cercetare si Interventie Sociala*.

45. Jalal, A. N., Bahari, M. and Tarofder, A. K. (2021) 'Transforming traditional CRM into social CRM: An empirical investigation in Iraqi healthcare industry', *Heliyon*. doi: 10.1016/j.heliyon.2021.e06913.

46. Jamali, M., Mehrabadi, M. A. and Pouri, M. (2017a) 'The Effect of the Implementation of E-Crm Electronic Satisfaction and Loyalty, Electronic Consumers of Mellat Bank's Website', *Journal of History Culture and Art Research*. doi: 10.7596/taksad.v6i1.709.

47. Jamali, M., Mehrabadi, M. A. and Pouri, M. (2017b) 'The Effect of the Implementation of E-CRM Electronic Satisfaction and Loyalty, Electronic Consumers of Mellat Bank's Website', *Revista Administração em Diálogo - RAD*. doi: 10.20946/rad.v19i0.32044.

48. Januszewski, A. and Krupcala, K. (2021) 'Impact of the CRM System and Time Management on Organizational Effectiveness and Performance: Case Study of an E-Commerce Micro Enterprise', *EUROPEAN*

RESEARCH STUDIES JOURNAL. doi: 10.35808/ersj/2015.

49. Januszewski, A. and Krupcała, K. (2021) 'Experience from Attempts to Implement an e-CRM System in an e-Commerce Micro Enterprise', in *Lecture Notes in Business Information Processing*. doi: 10.1007/978-3-030-85893-3_3.

50. Jarrah, M. A. AL *et al.* (2020) 'Building a Conceptual Model for E-CRM Implementation Strategy', *International Journal of Academic Research in Business and Social Sciences*. doi: 10.6007/ijarbss/v10-i1/6834.

51. Jiang, H. *et al.* (2021) 'Online learning satisfaction in higher education during the COVID-19 pandemic: A regional comparison between Eastern and Western Chinese universities', *Education and Information Technologies*. doi: 10.1007/s10639-021-10519-x.

52. Kakeesh, D., Al-Weshah, G. and Al-Ma'aitah, N. (2021) 'Maintaining customer loyalty using electronic customer relationship management (e-CRM): Qualitative evidence from small food businesses in Jordan', *Estudios de Economia Aplicada*. doi: 10.25115/eea.v39i7.4810.

53. Kampani, N. and Jhamb, D. (2020) 'Analyzing the role of E-CRM in managing customer relations: A critical review of the literature', *Journal of Critical Reviews*. doi: 10.31838/jcr.07.04.41.

54. Kaur, M. (2018) 'Customer Relationship Management in Online Grocery Stores', *Journal of Business & Financial Affairs*. doi: 10.4172/2167-0234.1000339.

55. Kavita (2016) 'E CRM service quality', *SUMEDHA Journal of Management*.

56. Khanh, C. N. T., Phong, L. T. and Cao, K. D. (2022) 'The impact of organizational factors on E-CRM success implementation', *VINE Journal of Information and Knowledge Management Systems*. doi: 10.1108/VJIKMS-05-2020-0096.

57. Khattak, A. (2022) 'Hegemony of Digital Platforms, Innovation Culture, and E-Commerce Marketing Capabilities: The Innovation Performance Perspective', *Sustainability (Switzerland)*. doi: 10.3390/su14010463.

58. Khurniasari, E. and Rahyadi, I. (2021) 'The effect of E-CRM and technological innovation toward customer loyalty: A mediation effect of customer experience on Tokopedia customers', *Journal of Theoretical and Applied Information Technology*.

59. 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*. doi: 10.1108/BIJ-10-2020-0528.

60. Lai, X., Wang, F. and Wang, X. (2021) 'Asymmetric relationship between customer sentiment and online hotel ratings: the moderating effects of review characteristics', *International Journal of Contemporary Hospitality Management*. doi: 10.1108/IJCHM-07-2020-0708.

61. Levy, S. E., Duan, W. and Boo, S. (2013) 'An Analysis of One-Star Online Reviews and Responses in the Washington, D.C., Lodging Market', *Cornell Hospitality Quarterly*. doi: 10.1177/1938965512464513.

62. Li, L. and Zhang, J. (2021) 'Research and Analysis of an Enterprise E-Commerce Marketing System Under the Big Data Environment', *Journal of Organizational and End User Computing*. doi: 10.4018/joeuc.20211101.oa15.

63. Mainardes, E. W. and Cardoso, M. V. (2019) 'Effect of the use of social media in trust, loyalty and purchase intention in physical stores', *International Review of Retail, Distribution and Consumer Research*. doi: 10.1080/09593969.2019.1583593.

64. 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*. doi: 10.1108/AJEMS-08-2017-0183.

65. Matthewson, J. (2020) 'Online customer relationship management', in *e-Business - A Jargon-Free Practical Guide*. doi: 10.4324/9780080504872-13.

66. Melovic, B. *et al.* (2022) 'Electronic Customer Relationship Management Assimilation in Southeastern European Companies - Cluster Analysis', *IEEE Transactions on Engineering Management*. doi: 10.1109/TEM.2020.2972532.

67. Mohammad, A. A. S. (2019) 'Customers' electronic loyalty of banks working in jordan: The effect of electronic customer relationship management', *International Journal of Scientific and Technology Research*.

68. Mondal, J. and Chakrabarti, S. (2021) 'The

abandonment behaviour of the branded app consumer: A study using interpretive structural modelling approach', *Journal of Retailing and Consumer Services*. doi: 10.1016/j.jretconser.2021.102695.

69. MUHAMMAD, A. and RANA, A. H. (2020) 'Impact of Online Customer Relationship Management (OCRM) Upon Customers Satisfaction in Post Covid-19 Scenario. A Case Analysis of Standard Chartered Bank Pakistan', *International Review of Management and Business Research*. doi: 10.30543/9-4(2020)-16.

70. Nandya, T. and Permana, D. (2021) 'ANALYSIS OF THE EFFECT OF ELECTRONIC CUSTOMER RELATIONSHIP MANAGEMENT (E-CRM) AND BRAND TRUST ON CUSTOMER SATISFACTION AND LOYALTY IN PIXY COSMETIC PRODUCTS', *Dinasti International Journal of Management Science*. doi: 10.31933/dijms.v2i3.708.

71. Nurjannah, N. *et al.* (2022) 'The Impact of E-CRM and Customer Experience on E-Commerce Consumer Loyalty Through Satisfaction in Indonesia', *MIX: JURNAL ILMIAH MANAJEMEN*. doi: 10.22441/jurnal_mix.2022.v12i1.005.

72. Olomu, M. O. (2019) 'Marketing automation innovation practices and customer retention performance: Evidence from the Nigerian manufacturing SMEs', *International Journal of Business Performance Management*. doi: 10.1504/IJBPM.2019.101999.

73. Padeli, P. *et al.* (2019) 'E-CRM Mobile Applications To Improve Customer Loyalty (Case Study: PT Supermal Karawaci)', *Aptisi Transactions on Management (ATM)*. doi: 10.33050/atm.v4i1.1083.

74. Priansa, D. J. and Suryawardani, B. (2020) 'Effects of E-Marketing and Social Media Marketing on E-commerce Shopping Decisions', *Jurnal Manajemen Indonesia*. doi: 10.25124/jmi.v20i1.2800.

75. Rímoli, T. T. and De Castro Melo, D. (2018) 'The voice of consumers in social media: A framework to effective complaint management', *Revista Brasileira de Marketing*. doi: 10.5585/remark.v17i1.3693.

76. Safari, M. (2018) 'A conceptual framework to explain the relationship among electronic customer relationship management and electronic customer lifetime value: investigation the antecedents and presentation

a structural model', *New Trends and Issues Proceedings on Humanities and Social Sciences*. doi: 10.18844/prosoc.v4i10.3074.

77. Sahai, S. *et al.* (2019) 'Impact of digital commerce on fashion industry to gain customer loyalty', *International Journal of Engineering and Advanced Technology*.

78. Sain, G. S. and Kumar, S. (2015) 'The Effect of e-CRM on Customer Satisfaction: An Empirical Study of Online Shopping', *Journal of Management and Science*. doi: 10.26524/jms.2015.13.

79. Salem, S. F. (2021) 'Do Relationship Marketing Constructs Enhance Consumer Retention? An Empirical Study Within the Hotel Industry', *SAGE Open*. doi: 10.1177/21582440211009224.

80. Sasono, I., Suroso and Novitasari, D. (2021) 'A study on the relationship of E-marketing, E-CRM, and E-loyalty: Evidence from Indonesia', *International Journal of Data and Network Science*. doi: 10.5267/j.ijdns.2021.2.003.

81. Scutariu, A. L. *et al.* (2022) 'A cluster analysis concerning the behavior of enterprises with e-commerce activity in the context of the covid-19 pandemic', *Journal of Theoretical and Applied Electronic Commerce Research*. doi: 10.3390/jtaer17010003.

82. Setyawan, B., Sfenrianto and Pratam, R. E. K. A. (2021) 'CRM strategy for E-commerce based on customer payment type', *Journal of Theoretical and Applied Information Technology*.

83. Shareef, M. A. *et al.* (2020) 'Group behavior in social media: Antecedents of initial trust formation', *Computers in Human Behavior*. doi: 10.1016/j.chb.2019.106225.

84. Sharma, A. *et al.* (2021)' Relationship Between Customer Satisfaction and Loyalty', *SSRN Electronic Journal*. doi: 10.2139/ssrn.3913161.

85. Sharmen, S. (2018) 'Impact of Customer Relationship Management Practices on Customer Behavior in Restaurant Industries of Bangladesh', *International Journal of Marketing Research Innovation*. doi: 10.46281/ijmri.v2i1.105.

86. Smith, A. D., Shock, J. R. and Beaves, R. G. (2019) 'Customer relationship management and the impact of e-coupons on B2C retail markets', *International Journal of Business Information Systems*. doi: 10.1504/IJBIS.2019.097535.

87. Tahir, H., Waggett, C. and Hoffman, A. (2013)

'Antecedents of Customer Satisfaction : an E-Crm Framework', *Journal of Business and Behavioral Sciences*.

88. Tseng, T. H. *et al.* (2021) 'An empirical investigation of the longitudinal effect of online consumer reviews on hotel accommodation performance', *Sustainability (Switzerland)*. doi: 10.3390/su13010193.

89. Wadjdi, F. and Djamin, Z. (2021) 'The Relationship between E-Service Quality and Ease of Use on Electronic Customer Relationship Management (E-CRM) Performance Mediating by Brand Image', *Asian Journal of Economics, Business and Accounting*. doi: 10.9734/ajeba/2021/v21i430367.

90. Wibowo, B. S. and Haryokusumo, D. (2020) 'Capturing Opportunities in the Industrial Revolution 4.0: E-Commerce, Digital Marketing, Prestige, and Instant Online Buying', *Jurnal Dinamika Manajemen*. doi: 10.15294/jdm.v11i2.24507.

91. Xiao, Q. and Li, X. (2021) 'Exploring the Antecedents of Online Learning Satisfaction: Role of Flow and Comparison Between use Contexts', *International Journal of Computers, Communications and Control*. doi: 10.15837/IJCCC.2021.6.4398.

92. Yang, Z. and Babapour, H. (2022) 'Critical variables for assessing the effectiveness of electronic customer relationship management systems in online shopping', *Kybernetes*. doi: 10.1108/K-10-2021-0952.

93. Yuliati, Y., Hurriyati, R. and Adieb Sultan, M. (2021) 'ANALYSIS OF E-CRM, E-MARKETING ON CUSTOMER LOYALTY WITH INTERVENING VARIABLES OF CUSTOMER SATISFACTION AT PT. INDOFOOD CBP SUKSES MAKMUR Tbk.', *Dinasti International Journal of Education Management And Social Science*. doi: 10.31933/dijemss.v2i6.997.

94. Zaim, H., Ramdani, M. and Haddi, A. (2020) 'E-CRM success factors as determinants of customer satisfaction rate in retail website', *International Journal of Computer Information Systems and Industrial Management Applications*.

95. Zare, M. and Honarvar, A. R. (2021) 'Internet Services: Customer Relationship Management (CRM) Using Internet of Things (IoT)', *Journal of Management Information and Decision Sciences*.