

Electronic customer relationship management and customer retention of deposit money banks in Dutsin-Ma, Nigeria

Temitope Joseph Oyolola^a, Ahmadu Abubakar^{a*}, Usman Bello^b, Lawal Sani^b

Abstract

This study investigates the effects of electronic customer relationship management (ECRM) on the customer retention of deposit money banks (DMBs) in Dutsin-Ma, Nigeria, using responses obtained from 380 customers of the three DMBs operating in the study area. The study adopts a cross-sectional survey research design, a structured questionnaire as a means for data collection and multiple regression techniques as the main method of data analysis with the aid of the statistical package for social sciences (SPSS) version 25. Results confirm that ECRM proxies: pre-transaction, at-transaction and customer feedbacks and complaints management (post-transaction) features of ECRM have a significant and positive effect on the customer retention of DMBs in Dutsin-Ma. The study concludes that the adoption of the ECRM framework has contributed immensely to the improvement of customer experience and, consequently, customer retention in the study area. Thus, pre-transaction, during/at transaction and post-transaction features are important to service marketing strategies for retaining customers. The study, therefore, recommends that DMBs in the study area should upgrade their ECRM platforms to further improve customers' seamless experience to increase customer retention. The study also recommends that banks should make their e-banking platforms more secure, user-friendly and faster.

Keywords: Electronic, customer, relationship, management, retention, Dutsin-Ma.

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1. INTRODUCTION

Customers are critical stakeholders in the success story of any business. Hence, customers should be treated with kid gloves and with the highest level of respect since they constitute very valuable assets to a company. Recently, the banking sector has been witnessing a remarkable expansion in the marketplace due to the advancement of information and communication technology (ICT). This development in ICT and the growing level of globalization has further increased customers demand expectations, and banks have a tough time trying to retain their customers (Al-Dmour et al., 2019). As a result, banks are seeking new ways through which they not only attract new customers but also retain existing ones. One way through which banks can enhance their customer services and gain competitive advantages is by providing web-based services. Adopting this approach, banks require advanced technologies to meet their customer's needs and wants. Considering the foregoing, advancement in technology and the

proliferation of internet services gave impetus to the emergence of the concept of electronic customer relationship management (E-CRM).^[1]

E-CRM is an information system through which organizations can make long-lasting relationships with their customers over the Internet with the help of multiple electronic platforms such as emails, web browsers, and among others. Banks have realized that maintaining relationships with customers is very important not only to achieve competitive advantage but also for survival in the long run (Oumar et al., 2017). Thus, the banks have changed their focus from a bank-centric approach to a customer-centric approach to improving their relationship with existing as well as prospective customers (Tan Veer, 2010). Many researchers have explained the benefits of E-CRM to banks and their customers. With the help of E-CRM, banks can bring down their transaction costs for customers. Additionally, banks can interact with their customers, provide them with personalized products

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and services and solve their problems (Khan & Khawaja, 2015). When banks implement e-CRM initiatives, their customers perceive that their banks provide them with more customized products/services and up-to-date and accurate information about new and existing products or services (Bataineh, 2015). Also, with E-CRM, customers can interact with their banks anytime and from anywhere, thereby providing convenience to the customers (Lam et al., 2013). Therefore, e-CRM can be considered a definite solution for both banks as well as customers. Organizations desire to employ various E-CRM strategies to create, attract, retain and improve customer relationships which in turn leads to customer loyalty and organizations profitability (Dubihela & Khosa, 2014).^[2,3,4,5,6,7,8,9,10]

A fulfilled and loyal customer base is the main objective of E-CRM, and organizations need to have E-CRM as an indispensable part of their business procedures to help create customer loyalty. When the person is satisfied, he/she would repurchase the product/service and spread positive word-of-mouth by recommending it to their friends and families, further directing towards customer loyalty. Delivering high-quality e-services can result in customer satisfaction, and only through customer satisfaction can organizations build up loyal customers and ultimately retain them (Okolo et al., 2021).

The features that makeup E-CRM remain critical for managing customer relationships online and building and maintaining customer loyalty. These features include concrete websites or Internet-based tools integrated into organizational systems, which, when properly customized, enable the required interaction with the customer (Mang'unyi et al., 2017). Thus the relationship with the customer cannot be realized through the Internet without effective E-CRM (Mang'unyi et al., 2017), which boils down to the need for its implementation across deposit money banks in Nigeria. This study, therefore, examines the effect of E-CRM on customer retention of DMBs in Dutsin-Ma, Nigeria.^[11,12,13,14,15,16]

2. Literature Review

2.1 Concept of ECRM

ECRM is the marketing activities, tools and techniques which are delivered over the Internet using various technologies such as; websites, emails, and data warehousing with the aim of building and improving long-lasting mutual relationships with customers (Kumar & Mokha, 2021). It is the latest technique which companies are using to enhance and increase their marketing skills and capabilities (Al-Dmour et al., 2019). According to Ekakitie and Olafare (2015), ECRM is the use of internet marketing channels like web-based-CRMs, mobile-CRM, mobile phones, etc., to reach the customer satisfactorily.^[17,18,19,20,21,22,23,24]

There are three levels of service experience, namely, pre-service, during-service sales, and after-sale service, which help fortify relationships while increasing overall customer satisfaction (Khalifa & Shen, 2009; Mang'unyi et al., 2017). According to the Transaction Cycle Framework (TCF), the three features of e-CRM, namely pre-transaction, during transaction and post-transaction, are encountered by the customer during a service purchase, at the time of purchase and after the purchase (Belch & Belch, 2010). The transaction cycle reinforces the three-stage relationship while increasing overall customer satisfaction. The consumer's behaviour towards a service enables a marketer to establish a product or service's position to increase its consumption (Belch & Belch, 2010), as well as appreciate the buying processes (Mang'unyi et al., 2017). Thus, it can be stated that e-CRM depends upon an understanding of consumers' buying behaviour.^[25,26]

According to Mang'unyi et al. (2017), pre-service transaction features include sign-in or log-in capabilities, information customization and personalization, and information capabilities, among several others.^[27,28,29,30]

At purchase, E-CRM is the stage where the customer assesses if they want to make a purchase; more factors than the product itself are important in this part; also, factors like price, security payment, convenience, and delivery are relevant for the customer to examine (Khalifa & Shen, 2009). Oumar et al. (2017) posit that the features of during transactions as "there are rewards, discounts or fees waivers for e-transactions", "ability to customize products/ services offered according to needs", "queries/complaints are handled/resolved on real-time", "availability of alternative transactions and/or payment modes", "easy information search" and "adherence to security and privacy concerns of customers influence a customer's decision to complete the online transaction. However, customer education is vital at this point.^[31,32,33,34,35]

The post-E-CRM features comprise frequently asked questions (FAQs), problem-solving and online feedback (Khalifa & Shen, 2009), which essentially entails customer service. Usually, a help desk issues with regard to a service or product are channeled thereby creating a 'personal interaction' with the organization (Pestek & Lalovic, 2012). Since customer satisfaction is a post-purchase experience, these features are critical for increasing customer's post purchase satisfaction via one-to-one communication and support from company's website.^[36,37,38,39,40]

The main purpose of E-CRM is not only to bring changes in the marketing domain but also improve company's efficiency in building and managing customer relationships, improving customer's services and retaining them to increase profitability (Adin et al., 2019).

2.2 Concept of Customer Retention

Customer retention is not a new phenomenon particularly in the field of marketing management. It can be described as the persistent patronage of a product or service over a long period of time by a customer (Gbolagade & Abubakar, 2018). Literature shows that customer retention is a robust business and marketing strategy (Ibojo, 2015; Muketh et al., 2016; Msoka & Msoka, 2014). Customer retention is the sustenance of current customers in a business relationship by providing exceptional services to them (Okolo et al., 2021). Most banks are more interested in acquisition of more new customers, instead of retaining old ones (Okolo et al., 2021). Soimo et al. (2015) argue that customer acquisition is less profitable than customer retention. Rootman et al. (2011) states that customer retention generates increased sales; more profitability, lower costs of attracting new customers and making referrals. It can equally lead to increased market share, better image and reputation, attraction of foreign direct investment and save cost.

2.3 Review of Empirical Studies

Bugaje (2015) investigates the effect of E-CRM on business organization and found that inability to secure company and customer information from theft, fraud and publishing are the major challenges of adopting E-CRM.

Mang 'unyi et al. (2017) applying correlation and multiple regression analysis, discovers that pre-service, during the service and post-service features of E-CRM have positive and significant on customer loyalty of banks in Kenya. Khalifa and Shen (2009) report that E-CRM surrogated by pre-purchase, at-purchase and post-purchase are positively related to customer satisfaction and customer retention.

Using evidence of 343 respondents and structural equation modeling (SEM), Al- Dmour et al. (2019) show that E-CRM success factors have a significant and positive impact on customer retention, customer satisfaction; customer trust and profitability (financial as well as non-financial) of Jordanian banks. In a study of 172 staff of Konga and Guarantee trust small and medium scale market hub in Lagos-Nigeria, Margaret et al. (2020) found a significant positive linear association between E-CRM and customer retention.

Ezechinurum et al. (2020) examine the relationship between internet banking service quality (internet service efficiency and website design) and customer retention of 169 customers of DMBs in Rivers state, Nigeria. Results of the Kendal's correlation coefficient adopted by the authors reveal an existence of a significant and positive relationship between internet banking service quality and customer retention in the study area.

Kumar and Mouka (2021) also unravel a

positive and significant relationship between E-CRM and customer retention. Applying a simple linear regression technique on a data retrieved from 384 customers of DMBs in South-Eastern Nigeria, Okolo et al. (2021) found a significant and positive association between customer feedback and customer retention. In yet another study of DMBs in South-Eastern Nigeria, Oranusi et al. (2021) also document a significant positive relationship between customer feedback management and customer retention, using the Pearson's product moment correlation coefficient.

Evidence from the above review of empirical studies, reveal that literatures explaining the relationship between ECRM and customer retention are rather very scarce globally, and particularly in Nigeria. This calls for more empirical investigations into the relationship.

Based on the above empirical review of literature, the following hypotheses are formulated:

Hypothesis one: Pre-transaction feature has no significant effect on customer retention.

Hypothesis two: At-transaction feature has no significant effect on customer retention.

Hypothesis three: Post-transaction feature has no significant effect on customer retention.

2.4 Theoretical Framework

The Technology Acceptance Model (TAM) has been adopted in many online contexts to gauge user perceptions of system use, and the probability of adopting an online system (Isac & Rusu, 2014; Ahmad et al., 2018). As the application of technology in customer relationship management has given birth to what is now known as ECRM (Ahmad et al., 2018), this study adopts the TAM developed by Davis. TAM explains information systems evaluation and adoption or use and examines consumer adoption decision. This model was a twin type of set that consisted of two variables which are: Perceived Usefulness (PU) and Perceived Ease of Use (PEOU)

PU is the extent to which a person believes that using the system will improve job performance. Margeret et al. (2020) describe it as that rate at which one acknowledges that adopting a specific kind of data structure will surely impact positively on the productive level. Davis on the other hand, describes PEOU as that level of understanding at which adopting same type of data structure will definitely be less cumbersome. PEOU is also the degree to which a person believes that using the system will be error-free. TAM is one of the most widely used models of information systems which describe the instigator towards acceptance of technology and the invention of TAM argued as one of the most widely used and empirically upgraded models imbibed in the information system context (Ahmed et al., 2018; Margaret et al., 2020). TAM is supported

by adopting it to online banking or web banking in an emerging economy due to its peculiar features (Margaret et al., 2020).

3. Methodology

This study employs cross-sectional survey research design because the collection of data through the administered structured questionnaire was executed at a single point in time. The population of the study comprises the customers of the three DMBs operating in Dutsin-Ma. Information obtained from the management of the banks reveals that First bank of Limited has 15,000 customers; united bank for Africa (UBA) Plc. has up to 10,000 customers and unity bank Plc. has 8,752 customers as at December 2022, making a total population of 33,752 bank customers.

The Krejche and Morgan (1970) formula for sample size determination was employed to arrive at an initial sample size of 380. In line with previous empirical literatures such as Awoniyi et al. (2022) and Mamman et al. (2017), 30 % was added to the initial sample size to arrive at a revised sample size of 494. This approach was adopted to overcome the problems associated with low and invalid responses. Groves (2006) posits that non-return and invalid cases are capable of rendering results invalid.

The study adopts proportional, purposive and convenience sampling techniques to administer questionnaire to the respondents. Proportional sampling technique was utilized to ensure that the research instruments were administered in proportion to the population of each bank in relation to the total population of the sampled banks. Accordingly, 220, 146 and 128 questionnaires are respectively administered to the customers of first bank Ltd, UBA and unity bank Plc in Dutsin-Ma branches. Purposive sampling technique was adopted to ensure that only customers of the banks operating accounts in Dutsin-Ma are administered with the questionnaire, while the convenience sampling technique was utilized to ensure that only available customers are administered with the research instruments.

Data collection was done through structured questionnaire administered to the respondents using multiple choice questions for demographics, and the five-point Likert scale for the study variables. The questionnaire was divided into five sections. The first section was used to elicit responses on the demographic variables (age, gender, academic qualification, and experience) of the respondents; the second, third and fourth sections elicit information on the independent variables and the last section requires respondents to answer a set of attitudinal statements on the dependent variables.

Descriptive statistics i.e. the frequency distribution was used in the analysis of demographics,

while multiple regression techniques was applied in the investigation of the effect E-CRM (pre--transaction, at-transaction, and post-transaction features) on the customer retention of DMBs in Dutsin-Ma, Nigeria. Therefore, implicitly, the regression model showing the relationship the independent variables (E-CRM) and the dependent variable (customer retention) is represented as thus;

$$CR = \beta_0 + \beta_1 PT_1 + \beta_2 AT_2 + \beta_3 PT_3 + e \text{-----} (1)$$

Where CR represents customer retention i.e. the dependent variable, β_0 represents the constant, β_1 β_2 and β_3 represent the coefficients of the independent variables; PT1, AT2 and PT3 represent pre--transaction, at-transaction, and post-transaction respectively; e is the error term.

To test the validity of the questionnaire instrument, we undertook a pilot study in which 38 questionnaires corresponding to 10% of the actual sample size in consonance with the suggestion of Connelly (2008) were administered proportionally to 17, 11 and 10 customers of first bank, UBA and unity bank respectively. The results of the pilot study validate the items in the questionnaire instruments. To achieve internal consistency, reliability test through the Cronbach alpha was utilized using a minimum benchmark of 0.6 as recommended by Hair et al. (2006).

4. Results and Discussion

Of the 494 questionnaires administered to the customers of the sampled banks, 380 corresponding to 77% of the issued questionnaires were returned as valid. Hence, analysis is done on the basis of 380 valid responses.

4.1 Reliability Test

As pointed out in the methodology section, reliability test is imminent for achieving internal consistency. Table 1 presents the results of the Cronbach alpha utilized to achieve reliability

The results of the Cronbach alpha show that the variables have a coefficient of at least 0.60, which according to Hair et al. (2006) suggests that the questionnaire items are reliable i.e. they have internal consistency.

4.2 Collinearity Test

This test is paramount in ensuring that two independent variables have no high correlation. Collinearity test is implemented in this study using variance inflation factor (VIF). Table 2 provides the results the VIF and its tolerance statistics.

The results in table 2 reveal that the independent variables have VIFs lower than 10; implying that the explanatory variables have no multicollinearity

problem. On the other hand, the table also shows that the tolerance statistics for the independent variables exceeded 0.1; which also suggests that the study model is free from the problem of multicollinearity. These conclusions or assertions on the thresholds of the VIF and tolerance statistic are supported by Hair et al. (2014) and Pallant (2005).

4.3 Descriptive Analysis

This section gives a descriptive analysis of the respondents in terms of educational qualification, age; sex and account relationship with bank using frequency distribution. Table 3 provides summary of the descriptive results.

The results of the descriptive statistics in table 3 reveal that quite a significant number of the respondents have at least a first degree has a minimum educational qualification. This implies that the respondents have the educational background to understand the statements in the questionnaire schedule. The results also indicate that most of the respondents are in their youthful age and are males that have account relationship with the bank for at most 10 years. The religious and cultural factors of the predominant of the study area accounted for more male participation in the banking activities. This finding is consistent with Gbolagade and Abubakar (2018) who also report that more males participated in the survey conducted in the similar study area. Overall, the personality makeup of the respondents is adequate in enhancing the quality of responses received.

4.4 Regression Analysis

The dependent variable represented by customer retention (CR) is regressed on the independent variables: pre-transaction features (PT), at-transaction features (AT) and post-transaction features (PT) using multiple regression techniques. Table 4 presents the summary of the regression results.

In table 4, the regression results reveal that all the proxies of E-CRM have positive and significant effect on the customer retention has proven by their respective t-values, which have 1 per cent level of significance.

4.5 Discussion of the Findings

Evidence from the regression results confirms a positive and significant association between pre-transaction features and customer retention. The coefficient of pre-transaction features is .194 which implies that a 1 per cent increase in the pre-transaction features of the E-CRM is capable of increasing the customers' retention level by 0.19 per cent. The implication of this discovery is that web design; ease

of access to mobile and internet banking applications; information personalization and customization as well as the quality of e-services have the capabilities and abilities to spur customers to stick or remain with the bank. This result is in consonance with the predictions of the TAM. This finding is also consistent with the result of Khalifa and Shan (2009).

The results of the regression model also show that at-transaction features of ECRM have a positive and significant effect on customer retention. The coefficient of the variable indicates that a 1 per cent increase in the at-transaction features of the ECRM will cause a .39 per cent increase in the level of customer retention. This finding also demonstrates the significance of at-transaction features of the E-CRM in contributing positively to customer retention in the banking sector. This implies that the customers' actual favourable and seamless experience with the e-banking platforms have the potentials to impact positively on the customer retention. Flexible and secured payment methods; privacy and security of e-transactions, pricing, online catalogue and order processing if well managed are likely to contribute positively to customer retention in the study area. This finding is in agreement with the result of Khalifa and Shan (2009).

The results also reveal that post-transaction activities i.e. issues relating to feedback and complaint management is significantly and positively related to customer retention. The coefficient of the construct suggests that a 1 per cent increase in the post-transaction features of the E-CRM will lead to about .35 per cent increase in the customer retention level. This implies that resolving customer complaints on e-banking channels in timely and friendly manner will enhance customer retention. This result is in tandem with the findings of Khalifa and Shan (2009), Okolo et al. (2021) and Oranusi et al. (2021).

Additionally, the adjusted R-squared of .690 implies that about 69 per cent of the variation in customer retention is jointly accounted for by pre-transaction features, at-transaction features and post-transaction features of the E-CRM, while the remaining 31 per cent are due to chance and other determinants of customer retention excluded or not captured by this study. The f-statistic of 282.184 is significant at a 1 per cent level as supported by the p-value of .000. This is a confirmation and a testimony of the joint significance of the ECRM proxies on customer retention. Given the values of the adjusted R-squared, f-statistic and its significance level, it is safe to conclude that our model is fit and suitable for making policy implications and directions.

E-CRM (Independent Variable)

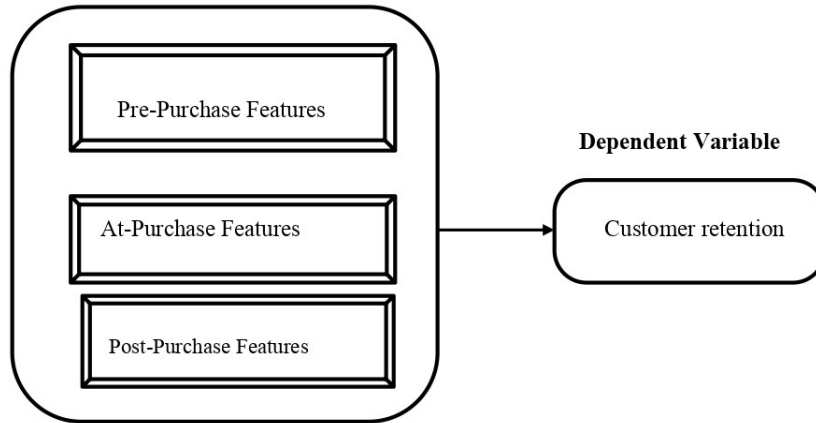


Figure 1: Conceptual framework

Table 1: Reliability Test

Variables	Cronbach's Alpha	No of items
Pre-transaction	0.672	5
At-transaction features	0.654	5
Post-Transaction features	0.643	7
Customer Retention	0.726	7
Overall items	0.898	24

Source: Authors' Computation (2022)

Table 2: Collinearity Statistic

Variables	VIF	Tolerance
Pre-transaction	2.303	0.434
At-transaction features	2.157	0.464
Post-Transaction features	2.300	0.435

Source: Authors' computation (2022)

Table 3: Descriptive Results

Educational Qualification of Respondents		
	Frequency	Percent
BSC/first degree	249	65.5
Diploma, NCE, OND	92	24.2
Masters	13	3.4
PhD	6	1.6
SSCE/others	20	5.3
Total	380	100.0
Age Group of the Respondents		
Frequency	Percent	
less than 18 years	155	40.8
18-25 years	170	44.7
26-45 years	21	5.5
46-55 years	9	2.4
56 years above	25	6.6
Total	380	100.0

Frequency	Percent	
Male	209	55.0
Female	171	45.0
Total	380	100.0
Account Relationship with Bank		
less than 5 years	130	34.2
above 5-10 years	216	56.8
11 years or more	34	8.9
Total	380	100.0

Source: Authors' Computation using SPSS

Table 4: Summary of the Regression Results

Model	Unstandardized coefficients	Standardized coefficients	t-values	p-values
Constant	.212		1.537	.125
PT	.194	.183	4.226	.000
AT	.392	.416	9.902	.000
PT	.345	.332	7.665	.000
R-squared	.692			
Adjusted R-squared	.690			
f-statistic	282.184			
f-significant	.000			
Standard error of estimate	.25915			

Source: Authors' Computation using SPSS

5. Conclusion and Recommendations

This study examines the effect of ECRM (pre-transaction features, at-transaction features and post-transaction features) on customer retention, using evidence from 380 customers drawn from the first bank, UBA and unity bank branches of Dutsin-Ma, Nigeria. The major findings reveal that pre-transaction features, at-transaction features and post-transaction features have a positive and statistical significant effect on the customer retention of the DMBs in Dutsin-Ma, Nigeria.

Relying on the major findings, the study concludes that the adoption of ECRM framework have contributed immensely to the improvement of customer experience, and consequently, customer retention in the study area. Thus, pre-transaction, during/at transaction and post transaction are important service marketing strategies for retaining customers.

Based on the major findings and conclusion, the following recommendations are offered for the management of banks and policy makers:

- Management of banks in the study area should upgrade their ECRM platforms to further improve customers' seamless experience in order to increase customer retention.
- Banks should make their e-banking platforms more secured, user-friendly and faster.
- Failed transactions on e-platforms should be

resolved within a minimum period of 24 hours and maximum period of 72 hours. This we believe will boost customers' confidence on e-channels, increase patronage as well as customers' retention levels.

- The regulatory authority such as the central bank of Nigeria should enforce the guidelines for operating e-channels by banks, especially, as it relates to the timelines for handling and resolving failed transactions.

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