Effect of Electronic Customer Relations Management on Performance of Commercial State Corporations in Trans Nzoia County, Kenya

KOSKEI JUSTUS KIPTANUI[1], DR. SYLVIA CHEPKOSGEY CHUMO PH. D[2]
Department of Entrepreneurship in the School of Human Resource Development, Jomo Kenyatta University of Agriculture and Technology

Abstract- The National ICT Policy (2016) acknowledges that state-owned enterprises can enhance their sourcing, sales, and logistics systems, streamline their operations, and strengthen their marketing, research, and innovation capabilities by utilizing the Internet's potential. It is from this backdrop that the study sought to establish the effect of electronic customer relations management on performance of commercial state corporations in Trans Nzoia County, Kenya. The study adopted innovation diffusion, technology acceptance model and task-technology fit model theories. Descriptive research design was used to establish the relationship between variables. A pilot study was carried out to enable computations for validity and reliability. The study used census sampling technique to convert the whole study population into sample size. The study findings established that electronic customer relations management, plays a substantial role in predicting the performance of commercial state corporations in Trans Nzoia County in the spheres of financial, customer satisfaction and efficiency. The study concluded that there is a significant positive effect between electronic customer relations management and performance of commercial state corporations in Trans Nzoia County. The study recommends that these corporations enhance their electronic customer management practices to boost organizational performance.

Indexed Terms- Organizational Performance, Electronic Customer Relations Management

I. INTRODUCTION

Information technology plays a crucial role in organizational contexts, and customer satisfaction is heavily influenced by the use of digital technologies, which are currently prevalent in the business environment (Muhammad et al., 2020). Electronic customer relationship management (e-CRM) involves the automated delivery of both new and traditional products and services directly to customers through electronic and interactive communication channels (Dzombo et al., 2017). This represents a strategic approach to select and effectively manage relationships with valuable clientele, as described by Deshmukh et al. in 2013. Consequently, CRM places its primary emphasis on retaining customers and nurturing long-lasting relationships, (Sheth and Parvatiyar ,2001).

In the case of a small businesses or organizations, they can establish and nurture customer connections through direct face-to-face interactions between their staff and customers. However, as the business grows in size and its customer base expands, it becomes increasingly challenging to establish and efficiently manage these relationships, as highlighted by Deshmukh et al. (2013). The perspective on electronic customer relationship management varies depending on the target audience and the specific customer requirements. In CRM, systems are developed for internal use, with web applications designed for individual departments or business units, providing customers with benefits in terms of ease of use and cost-effectiveness (Deshmukh et al, 2013)

Muhammad et al. (2020) suggest that e-CRM has emerged as a significant means of gathering customer data and delivering value-added services to clients, with the aim of gaining a competitive edge. The author contends that the impact of electronic customer relationship management is positively correlated with organizational success, especially in the face of heightened competition, making it essential for organizations to maintain their ECRM systems. Nonetheless, electronic customer relationship management presents a range of challenges, as outlined by Dzombo et al(2017), including issues related to financial system regulation, macroeconomic policy formulation and implementation, security, legal risks, and customer satisfaction

A study by Zeynab et al. (2018) observe that customer relations management is a very important growing business practice in today's environment for managing the interaction between a company and its future and current customers. The authors note that CRM approach's task by analyzing data about the history of customers with a company. It focuses on a way to retain customers; therefore, it helps the growth of sales. This leads to improvement of company's business relationship with customers. Results have indicated that the success of CRM is highly influenced through "information technology use", also "customer orientation", "organizational capability", and "customer knowledge management" are related to CRM success.

E-CRM has been adopted by institutions to elevate organizational performance through the facilitation of effective and efficient customer relationship management, as pointed out by Ng'ang'a (2017). This approach brings advantages to both the company and its customers. Consequently, businesses enhance their competitive edge, boost profit margins, cut down on expenses, reduce sales cycle durations, and augment their marketing insights. Meanwhile, customers benefit through increased loyalty, an enhanced customer experience, more efficient customer processes, and reduced costs, in line with the findings of Abu-Shanab and Anagreh (2015)

In a case study conducted in Kenya, the implementation of customer relationship management (CRM) programs at Kenya Commercial Bank Ltd was examined as a strategic approach to gaining a competitive edge within the banking sector. The study employed a descriptive research design, utilizing a survey technique. The results revealed that CRM yielded significant advantages, such as heightened profitability, improved market productivity, enhanced market effectiveness, and organizational learning. Notable challenges included the diversity of customer needs, leadership-related issues, and instances of CRM system failures. One knowledge gap identified in the study was the absence of an investigation into advanced technology applications in electronic customer relationship management within the banking sector, as highlighted by Githaiga (2013)

II. LITERAURE REVIEW

1.2.1 Electronic Customer Relations Management

CRM encompasses a combination of software, hardware, applied programs, and managerial plans aimed at enhancing the quality of customer service and customer protection (Houshang & Sedigheh, 2013). The authors propose CRM as a tool for measuring organizational performance to increase benefits and foster customer loyalty towards company products. CRM is a vital business practice utilized to manage interactions between an organization and its current and prospective customers, with a specific emphasis on customer retention for sales growth (Zeynab et al., 2018).

In a study conducted by Javaid (2021) in Pakistan, the impact of CRM on the performance of insurance providers was examined. The study employed a descriptive research design, with performance measures including complaint resolution, customer orientation, customer empowerment, and customer knowledge. The findings revealed that CRM had a positive impact on both organizational performance and employee performance, with customer handling acting as a mediating factor between customer relationship management and organizational performance. The study also established that customer knowledge, customer orientation, customer empowerment, and complaint resolution added value to CRM, leading to increased customer loyalty with insurance companies.

Similarly, Soltani et al. (2018) conducted a study in Bangladesh firms to assess the impact of customer relationship management on organizational performance. The study employed a descriptive research design and demonstrated that customer relationship management significantly and positively influenced organizational performance. Furthermore, it was found that customer knowledge management, organizational capability, CRM prospect, and customer orientation were correlated and significantly affected organizational performance.

Hanaysha and Mehmood (2022) conducted a study in the banking sector of Palestine to examine how customer relationship management (CRM) practices impact organizational performance. The primary aim of the study was to assess the connections between CRM practices and organizational performance within the Palestinian banking industry. The study focused on customer orientation, CRM organization, knowledge management, and CRM technology. Data was collected through a quantitative survey method, involving online questionnaires distributed to employees in sales and marketing, ICT, customer service, and CRM departments. A total of 223 completed questionnaires were received. The findings of the study indicated that customer orientation, CRM organization, knowledge management, and CRM technology have a significant positive influence on organizational performance. The study concluded that organizations need to consistently monitor and effectively manage customer relationships to enhance organizational performances.

Ngala and Orwa (2020) conducted a descriptive research study on customer relationship management strategies and the organizational performance of the Insurance Company of East Africa, Lion of Kenya. Performance measures employed in the study included customer retention, customer satisfaction, customer value, relationship marketing, and customer loyalty. The study revealed that relationship building formed the foundation for customer retention and satisfaction, with a rating of 40% in the assessment. Additionally, customers' attitudes towards CRM strategies were satisfactory, receiving an 80% rating. The study concluded that CRM's impact on performance was evident in improved marketing methods, enhanced customer retention, increased customer profitability, and growth in market share.

A study carried out by Riugu (2017) on customer relationship management as a competitive tool in the Kenya banking industry using KCB Kenya Ltd as a case study, found customer orientation was an essential component of marketing concept in KCB and their marketer understood the buyer's entire value chain. Customer orientation in KCB provided a solid basis of intelligence pertaining customer and service quality improvement. Customer service was found to be a fundamental factor behind KCB success in customer relation growth. The recommendation was that KCB considers improving its electronic products to operate as promised and shift to a knowledge-based economy.

1.2.2 Organizational Performance

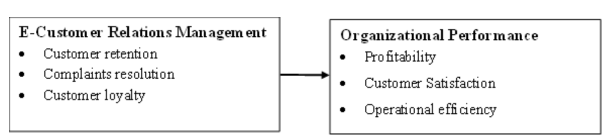
Organizational performance is a commonly studied and important variable in the field of management, as highlighted by Richard, et al. (2009). Organizations engage in a range of activities to achieve their goals and objectives Jenatabadi (2015). These activities, which are performed repeatedly, rely on processes that contribute to the organization's success. The author argues that it is crucial to quantify these processes to evaluate performance levels accurately and enable informed decision-making by management, especially when identifying areas that require improvement. The author contends that there exists a strong correlation between the organizational objective and the notion of organizational performance.

Organizational performance encompasses various aspects such as effectiveness, efficiency, and financial viability, serving as a measure of overall organizational success (Carton & Hofer, 2010). Performance can be conceptualized through both financial and nonfinancial indicators. Financial measures include metrics such as return on assets, return on investment, and profit growth, while nonfinancial measures encompass employee evaluations of organizational effectiveness and overall satisfaction (Venkatraman & Ramunujam,1986)

In this study, the focus was on measuring organizational performance within commercial state corporations through the lens of profitability, customer satisfaction, and efficiency. Profitability refers to an enterprise's ability to generate profit by effectively utilizing production factors and capital (Diana, & Maria, 2020). It can be assessed using indicators such as return on assets, return on investment, return on sales, and return on equity (Jahanshahi et al., 2012). Customer satisfaction reflects an organization's capacity to attract and retain customers and enhance customer relationships over time. It primarily gauges the satisfaction customers experience with an organization's products or services (Ambrož, & Praprotnik, 2008). Efficiency pertains to how efficiently organizations employ resources to achieve desired outputs (Chavan, 2009). It involves optimizing resource utilization to maximize productivity and minimize waste.

1.3 CONCEPTUAL FRAMEWORK

The conceptual framework shows the relations between and among the study variables as shown in Figure 1.



Independent Variable Dependent Variable

Figure 1: Conceptual Framework

Figure 1 provides an outline of the relationships and expected impacts of independent and dependent variables. In the context of this study, the independent variable included electronic customer relations management, which was measured in terms of Customer retention, Complaints resolution and Customer loyalty to the company products while dependent variable Organizational performance was measured in terms of Profitability of the company, Customer Satisfaction and Operational efficiency.

III. MATERIALS AND METHODS

This study therefore applied a positivistic paradigm with a survey research design to collect data. This design is suitable for the study because it aimed at collecting information that would show relationships, practices, beliefs and attitudes held on the subject matter in this study and analyzed quantitatively. The study therefore targeted a cross section of all the six (6) commercial state corporations located in Trans Nzoia County being New Kenya Cooperative Creameries (KCC), Telkom Kenya Ltd (TKL), Postal Corporation of Kenya (PCK), Kenya Seed Company Ltd (KSC), Kenya Power Ltd (KP) and National Cereals and Produce Board (NCPB). This study adopted a complete enumeration survey design to select all the study constituents for the sample since the population is small (Kombo & Tromp, 13). Therefore, the study adopted the 120 respondents as the study sample. The study employed questionnaires as the primary research instruments an analyzed-on areas of organizational performance. The use of structured questionnaires was favored due to their consistency, uniformity, and ability to elicit objective responses from participants (Mugenda and Mugenda, 2003). Therefore, before initiating the data gathering process, the study relevant documentation such as an introductory letter from the University was acquired. The introductory letter was then used to apply for research permit from the National Commission for Science Technology and Innovation (NACOSTI). Authority letters were then sought from relevant authorities in the companies were data where was collected from. The questionnaires were the distributed to the targeted respondents. Data collected from the targeted sample was tested for reliability by computing the Cronbach's Alpha Coefficients for variables which had multiple sub variables to establish the suitability of the study tool in collecting data from the targeted. The Statistical Package for the Social Sciences (SPSS) version 26 was employed along with Microsoft Excel spreadsheets to analyze the data. Descriptive statistics, such as frequency counts, means, and percentages, was utilized in the analysis.

IV. FINDINGS AND DISCUSSIONS

The objective of the study was to examine the effect of electronic customer relations management on performance of commercial state corporations in Trans Nzoia County, Kenya. Questionnaires were sent out to the respondents to collect data in a bid to find out the effect of electronic customer relations management on performance of their respective organisations. The findings are shown in Table 1.

Table 1: Electronic customer relations management

	N	Min	Max	Mean	Std. Dev
Our institution has a Customer Relations Management system to manage the relationships with customers.	116	2	5	4.16	.913
Customer Relations Management adoption has led to greater customer retention	116	2	5	3.95	.822
Customer Relations Management implementation has led to enhanced customer complaint resolutions	116	1	5	3.78	1.148
Customer Relations Management implementation has led to more customer loyalty to the institution products and services	116	1	5	3.79	.928
Customer Relations Management implementation has led to enhanced customer satisfaction.	116	1	5	3.62	1.184

Table 1 presents findings indicating that a significant portion of the survey participants, with an average score of 4.16 (SD= 0.913), strongly agreed that the institutions utilizes an electronic customer relations management system for handling customer relationships. The research also noted that a majority of respondents, with an average score of 3.95 (SD = 0.822), concurred that the adoption of electronic customer relations management had a positive impact on customer retention, suggesting a favorable correlation. Additionally, the study found that a substantial number of participants, averaging at 3.78

(SD = 1.148), were in agreement that the implementation of customer relations management had improved the resolution of customer complaints. Furthermore, the research indicated that most respondents, averaging 3.79 (SD = 0.928), agreed that customer relations management implementation led to greater customer loyalty towards the institution's products and services. Finally, the study revealed that a significant portion of respondents, with an average score of 3.62 (SD=1.184), agreed that customer relations management implementation resulted in increased customer satisfaction.

4.5.1 Linear Regression for E-CRM and Organizational Performance

The study conducted a linear regression analysis to help make inferences from the descriptive analysis between electronic customer relations and organizational performance the following statistics were produced as shown in Tables 2, 3 and 4.

Table 2: Model summary for E-CRM and organizational performance

Model Summary					
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.097[a]	.095	.0952	.23443	.199
a. Predictors: (Constant), E-CRM					
b. Dependent Variable: OP					

Table 2 shows that the R^2 value of .095, which implies that 9.5% of changes in performance by commercial state corporations are explained by the independent variable, electronic customer relations management, while 90.5% is explained by the error term. The adjusted R^2 value of .0952 shows that 9.52% changes in performance by commercial state corporations is explained by the electronic customer relations management while the difference, 90.48% is captured by the error term hence showing a model with a good fit at 9.5% (Cohen, 1988).

Table 3: ANOVA for E-CRM and organizational performance

ANOVA[a]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	126.502	1	126.502	1.756	.000[b]
	Residual	6.265	114	.055		
	Total	132.767	115			
a. Dependent Variable: Performance						
b. Predictors: (Constant), E-CRM						

Table 3 indicates that the ANOVA (F-Statistics) measures the overall significance of the model. It provides information levels of variability within the regression model and hence forms a basis for tests of significance. The results confirm that the regression model is significant for the data as captured by the ANOVA (F-statistic) value of 1.756 and is associated probability value of 0.000($F= 1.756$, $p<0.05$) that was found to be significant at 5% significant level.

Table 4: Coefficients for electronic customer relations management and performance

Coefficients								
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	.586	.091		6.434	.000		
	ElectCustRelations	1.098	.023	.097	4.797	.000	1.000	1.000
a. Dependent Variable: OP								

Table 4 represents the coefficient of regression where interpretation is made at the unstandardized coefficients that depicts the estimated coefficients which show the size or the magnitude of the change and the t-statistics which tests the statistical significance of the individual regression coefficient as compared to the p-value. Therefore, the study established that the electronic customer relations management coefficient value was found to be 1.098 which shows that a unit increase electronic customer relations management on average, increases performance of commercial state corporations by 1.098 units hence a direct positive correlation between electronic customer relations management on performance of commercial state corporations in Trans Nzoia County.

The study also observed that the calculated t-value for the relationship electronic customer relations management on performance 4.797 with an associated p-value of 0.000. since the p-value is less than 0.05 at 5% level of significance, the study concludes that electronic customer relations management has a significant and positive effect on performance hence, the null hypothesis, “There is no significant effect between the electronic customer relations and organizational performance, was rejected since ρ<0.05 and adopted the alternative hypothesis that, there is significant effect between electronic customer relations and organizational performance in the commercial state corporations in Trans Nzoia County. The regression equation for predicting organizational performance from electronic customer relations management was Y=0.586+1.098X implying that electronic customer relations management has positive significant effect on organizational performance (B=.586, $p<0.05$). The study has found that electronic customer relations management plays a crucial role in predicting the performance of commercial state corporations. Therefore, it is recommended that these corporations should enhance their electronic customer management practices, as it significantly contributes to organizational performance.

REFERENCES

[1] Abu-Shanab, E., & Anagreh, L. (2015). Impact of electronic customer relationship management in banking sector. International Journal of Electronic Customer Relationship Management, 9 (4), 254–270.

[2] Ambrož, M., & Praprotnik, M. (2008). Organisational effectiveness and customer satisfaction. Organizacija, 41(5), 161-173.

[3] *Carton, R., & Hofer, C.W. (2010). Organizational Financial Performance: Identifying and Testing Multiple Dimensions. Academy of Entrepreneurship Journal, 16, 1.*

[4] Chavan M., (2009) The balanced scorecard: a new challenge//Journal of Management development. 28, issue 5, p. 393-406.

[5] *Cohen*, J. (*1988*). Statistical Power Analysis for the Behavioral Sciences (2nd ed.). Hillsdale, NJ Lawrence Erlbaum Associates, Publishers

[6] Deshmukh, S., Deepa, N., & Shravanthi, A. R. (2013). E-CRM: an ultimate strategy for an organization. International Journal of Management Research and Review, 3 (3), 2557-2566

[7] Diana, H. I., & Maria, M. M. (2020). The importance of profitability indicators in assessing the financial performance of economic entities. The Annals of The University Of ORADEA, 29(2020), 219.

[8] Dzombo, G. K., Kilika, J. M., & Maingi, J. (2017). The effect of branchless banking strategy on the financial performance of commercial banks in Kenya. International Journal of Finance Research, 8 (4), 167-183.

[9] Githaiga. A. M. (2013). Customer relationship management as a strategy to gain competitive advantage in the banking industry: A case study of Kenya Commercial Bank. (Thesis, United States International University, Nairobi, Kenya). Retrieved from http://erepo.usiu.ac.ke

[10] Hanaysha, J. R., & Mehmood, K. K. (2022). An exploration of the effect of customer relationship management on organizational performance in the banking sector. *International Journal of Customer Relationship Marketing and Management (IJCRMM)*, *13*(1), 1-16.

[11] Houshang T., & Sedigheh, N. (2013). The Impact of Application of Electronic Commerce on the Customer Relationship Management (Case Study). Australian Journal of Basic and Applied Sciences, 7(1): 358-363

[12] Jahanshahi, A. A., Rezaei, M., Nawaser, K., Ranjbar, V., & Pitamber, B. K. (2012). Analyzing the effects of electronic commerce on organizational performance: Evidence from small and medium enterprises. *African Journal of Business Management* 6. 6486-6496.

[13] Javaid, A. Nawaz, N. Tara, N., and Altaf, M. (2021). Impact of Customer Relationship Management on Firm Performance? Empirical Investigation of Insurance Providers in Pakistan. Bulletin of Business and Economics, 10(4), 64-75. https://doi.org/10.5281/zenodo.6338540

[14] Jenatabadi, H. S. (2015). An overview of organizational performance index: definitions and measurements. 10.13140/RG.2.1.4298.3849.

[15] Muhammad, I. H., Muhammad, A., & Muhammad, K. B., Muhammad, S. L. (2020). The Effect of Electronic Customer Relationship Management on Organizational Performance with Mediating Role of Customer Satisfaction. *International Review of Management and Marketing, Econjournals*, 10(5), 138-147.

[16] Ngala, M., & Orwa, B. H. (2020). Customer Relationship Management Strategies and Organizational Performance A case of Insurance Company of East Africa Lion of Kenya (ICEALION) Mombasa. International Journal of Education and Research, 4(1), 155-168.

[17] Richard, P. J., Devinney, T. M., Yip, G. S., & Johnson, G. (2009). Measuring organizational performance: Towards methodological best practice. *Journal of management*, 35(3), 718-804.

[18] Riungu, J. (2017). Customer Relationship Management as a competitive tool in Kenyan banking industry: A case study of Kenya Commercial Bank. (Research project report, United States International University Africa, Nairobi, Kenya). Retrieved from http://erepo.usiu.ac.ke

[19] Sheth, J. & Parvatiyar, A. (2001). Conceptual Framework of Consumer Relationship Management. International Conference on Customer Relationship Management. Gurgaon India: Management Development Institute.

[20] Sivaraks, P., Krairit, D., & Tang, J. C. S. (2011). Effects of e-CRM on customer–bank relationship quality and outcomes: the case of Thailand. Journal of High Technology Management Research, 22, 141–157.

[21] Soltani, Z., Zareie, B., Milani, F. S., & Navimipour, N. J. (2018). The impact of the customer relationship management on the organization performance. The Journal of High Technology Management Research, 29(2), 237-246

[22] Venkatraman, N., &Ramanujam,V. (1986). Measurement of Business Performance in Strategy Research: a Comparison Approaches. Academy of Management Review,11,801-814.

[23] Zeinab M. E.G (2005). The Impact of E-commerce on Developed and Developing Countries: Case Study of Egypt and United States. Misr University for Science and Technology.

[24] Zeynab S., Batool, Z., Farnaz, S., Milani, N., & Jafari N. (2018). The impact of the customer relationship management on the organization performance. The Journal of High Technology Management Research, 29(2), 237-246