IMPACT OF NETWORK QUALITY ON CUSTOMER RETENTION; CASE STUDY OF SELECTED UNIVERSITIES IN KENYA, A CUSTOMER RELATIONSHIP MANAGEMENT APPROACH

Dr. Kennedy Ntabo Otiso

Senior Lecturer, Department of Business Administration and Management Science, School of Business, Koitaleel Samoei University College, Kenya

*Email of the Author: kenntabo@gmail.com

Publication Date: November, 2024

ABSTRACT

Purpose: This study aimed to investigate the impact of network quality on customer retention among mobile phone users in Kenya's public universities, using Customer Relationship Management (CRM) as the primary lens.

Methodology: A descriptive and explanatory research design was adopted. Data were collected through a structured questionnaire distributed to a sample of 222 respondents. Descriptive and inferential statistics, including multiple regression analysis, were employed, with customer satisfaction examined as a potential mediator.

Results: The study revealed that customer satisfaction plays a significant role in predicting customer retention. Further, customer satisfaction was found to partially mediate the relationship between CRM practices and customer retention, emphasizing the importance of customer satisfaction in sustaining customer loyalty.

Conclusion: The study concludes that enhancing customer satisfaction through effective CRM practices is essential for improving customer retention in Kenya's mobile service sector.

Recommendation: Mobile service providers should prioritize CRM strategies that directly boost customer satisfaction to foster long-term customer loyalty.

Keywords: *Network Quality, Customer Retention, Customer Satisfaction, Customer Relationship Management (CRM), Mobile Service*

BACKGROUND INFORMATION

As the competitive environment becomes more turbulent, the most important issue the sellers face is no longer to provide excellent, good quality products or services, but keep loyal customers who will contribute long-term profit to organizations (Tseng, 2007). Bateson and Hoffman (2002), define customer retention as focusing a firm's marketing effort towards the existing customer's base. Many firms recognize the importance of customer's retention but relatively few understand the economics of customer retention within their own firms. It is claimed that 5% improvement in customer retention can cause an increase in profitability of between 25 and 85 percent depending on the industry ((Kerin, Hartley, & Rudelius, 2009; Reichheld & Sasser, 1990). Likewise, it is easier to deliver additional product and service to an existing customer than to a first-time "buyer" (Kotler & Keller, 2006; Wills, 2009). Organizations both private and public in today's dynamic market place are increasingly leaving anticipated marketing philosophies and strategies to the adoption of more customer-driven initiatives that seeks to understand, attract, retain and build long term relationship with profitable customers (Kotler, 2006, Gronroos,C 1994). This paradigm shift has undauntedly led to the growing interest in CRM practices that aim at ensuring customer identification, interactions, customization and personalization that unreservedly lead to customer satisfaction, retention and profitability (Thompson, 2004, Gronroos et al., 1996; Xu et al, 2002, store, 2000). CRM practices is defined as, "activities that focuses on managing the relationship between a firm and its current and prospective customer base, as a key to success, (Gebert, 2003). It further, means developing a comprehensive picture of customer needs, expectations and behaviors and managing those factors to affect business performance. CRM practices help in building long lasting relationships and these relationships give a company joy of retained customers.

CRM practices encompass relationship marketing values and strategies focused on building strong customer relationships through practical applications. Key CRM elements influencing customer satisfaction and retention include service quality (such as network quality), perceived value, customer relational experience, and loyalty programs. Literature highlights service quality as a critical factor in customer retention (Brown and Gulycz, 2001; Antreas and Opoulos, 2003), while perceived value (Oliver and DeSarbo, 1988; Bolton and Lemon, 1999) and customer relational experience (Janiszewski, 2009; Li and Ho, 2008; Singh, 2008) also play vital roles. Loyalty programs further enhance retention by rewarding repeat customers (Deighton, 2000; Kivetz and Simonson, 2002). Customer

satisfaction stems from positive buyer-seller interactions, where an effective exchange relationship can create a competitive edge by reducing price sensitivity. Strong, quality relationships foster mutual benefits, leading to stable, long-term exchanges that support customer loyalty (Crosby et al., 1990; Singh, 2008).

The focus of this study is on the effects the mediating effect of customer satisfaction on the relationship between customer relationship management practices and customer retention among mobile phone service users in public universities of western Kenya region.

Statement of the Problem

Today, when a new product hits the market every day, businesses in all industries face greater cut-throat competition than ever before. To counter competition firms are increasingly adopting more customer-driven initiatives that seeks to understand, attract, retain and build long term relationship with profitable customers (Kotler, 2006, Gronroos, 1994). In the telecommunication sector in Kenya firms have implemented Customer relationship management strategies to enhance customer satisfaction and retention. Some of the practices include improving Network quality, creating more superior customer value, enhancing Customer relational experience and the introduction of loyalty programs. CRM practices help the organization to work smarter by optimizing services to the customers and maximizing revenue.

The key to stability in today's dynamic marketplace is in forging long-term customer relationships through Customer relationship management practices and to succeed, a company must differentiate themselves through superior service & offer a consistent, convenient customer experience to gain an edge. They must abandon the view that customers represent immediate sales transactions and a quick buck. Customer Relationship Management practices is the strongest and the most efficient approach in maintaining and creating relationships with customers, not only pure business but also ideate strong personal bonding within people. Once this personal and emotional linkage is built, it is very easy for an organization to identify the actual needs of customer and help them to serve them in a better way. Customer relationship management practices can help make sure there is a thorough understanding throughout the organization of what customers really want, and then use that information to follow up with actions, solutions, and resolutions.

A number of studies have been carried out on the direct effect of individual CRM practices on customer satisfaction and retention. However, there are limited studies on the role of mediator in the relationships. Rahmat Madjid, 2013 examined Customer Trust as Relationship Mediation between Customer Satisfaction and Loyalty also Peter Verhoef, 2003 focused on Understanding of Customer Relationship Management Efforts on Customer Retention and Customer Share Development. The problem of this study is propelled by the need to empirically test the mediating role of customer satisfaction on the relationship between Customer relationship management practices and customer retention in the mobile phone service users in Kenya. This research will contribute to marketing literature by examining how customer satisfaction mediates the relationship between Customer relationship management practices on customer retention.

LITERATURE REVIEW

Provision of a reliable service which can satisfy customers, is critical for retaining customers and a tool to protect organizations from customer churn (Brown and Gulycz, 2001). The relationship between service quality and customer satisfaction is somewhat reciprocal. Previous research on this relationship can be divided into two schools of thoughts, one considers a satisfied customer perceived highly about service quality (Brown and Gulycz, 2001), and the other argue that service quality leads to customer satisfaction (Antreas and Opoulos, 2003; Cronin and Taylor, 1992; Spreng and MacKoy, 1996). Nevertheless, both schools agree that there is a strong correlation between customer satisfaction and service quality.

Availability, reliability and stability of the network are key in customer satisfaction. Equally, the extent of signal coverage is an important determinant in customer loyalty. With the onset of money transfer services, real time delivery of transactional messages is now essential. To this extent, measurement of customer satisfaction in relation to network performance is important. SERVQUAL model developed by Parasuraman *et al* (1988) suggested that there is a difference between customer satisfaction and the provider's actual service performance.

Delivering a service performance, which can satisfy customers, is critical for retaining customers and a tool to protect organizations from customer churn (Brown and Gulycz, 2001). Marketing scholars and practitioners equally emphasize on the issue of customer satisfaction or generating loyalty among customers, which helps in maintaining existing

cash flows and guarantee stable future (Teas, 1994; Zeithaml *et al.,* 1996). While the manufacturing sector is concerned with the repurchase, most of the services depend on the continuity and thus focus on customer retention (Anderson *et al*., 1994). In an environment with reduced calling rates such as Kenyan markets, customer satisfaction has now become vital.

RESEARCH METHODOLOGY

The study employed a survey research design, guided by a positivist research philosophy to objectively investigate customer retention among mobile phone users within public universities in Western Kenya. This approach aimed to provide measurable, structured insights into CRM (Customer Relationship Management) practices and their effect on customer loyalty.

The target population comprised staff members across six public universities in the Western Kenya region, totaling 15,007 individuals. Using a stratified random sampling technique, a sample of 250 respondents was selected to ensure representativeness across different strata within the population. Data collection was conducted using structured questionnaires with closed-ended questions on a five-point Likert scale, allowing for both qualitative and quantitative responses. The study also implemented reliability testing through Cronbach's Alpha to confirm internal consistency of responses, ensuring reliability with coefficients above the acceptable 0.7 threshold. Data analysis incorporated descriptive and explanatory statistical methods, facilitating an in-depth understanding of CRM practices and their relationship to customer retention. Ethical considerations were prioritized, including informed consent, confidentiality, and voluntary participation. The research provided full transparency to participants, protected anonymity, and included expert feedback and a pilot study to minimize bias and enhance the validity of findings.

FINDINGS

Descriptive Statistics

For clear determination of the responses made to the research items, the mean, standard deviation, skewness and kurtosis of the study variables were determined as highlighted in Table 1

Table 1: Descriptive statistical analysis of the study variables

Variables	Mean	Std dev	Skewness	Kurtosis
NQ	3.3584	0.70455	-0.905	0.824
CS	3.4234	0.79292	-0.583	-0.248
NQ=Network Quality, and CR=Customer Retention				

Source: Research Data (2014)

The descriptive statistics indicate that Network Quality has a moderate satisfaction level with a mean of 3.3584, showing limited variability (SD = 0.70455) and a slight negative skew (-0.905), suggesting most responses lean positively. Customer Satisfaction is slightly higher, with a mean of 3.4234 and more variability (SD = 0.79292), while its skewness of -0.583 suggests generally positive feedback but with broader response diversity. Customer Retention, the key dependent variable, has a mean of 3.2450, slightly lower than Network Quality and Customer Satisfaction, indicating a moderate level of loyalty with some variability (SD = 0.71781). The negative skew (-0.620) suggests that respondents lean toward retention, though less strongly. Overall, the data suggests that while network quality and satisfaction are viewed positively, further improvements could strengthen customer retention.

Correlation Analysis

The correlation shown in Table 2 presents bivariate correlations between variables. Since a single construct in the questionnaire was measured by multiple items, the average score of the multi-items for a construct was computed and used in further analysis such as correlation analysis and multiple regression analysis (Wang and Benbasat, 2007).

Table 2: Pearson Correlation Coefficient of Study Variable

	NQ	PV	CRE	LP	CS	CR	Sig. (2 tailed)
NQ	1						
CR	.501	.461	.512	.587	. 646	1	0.000
NQ=Network Quality and CR=Customer Retention							

Source: Research Data (2014)

From Table 2, When the correlation coefficient value (r) range from 0.10-0.29, is considered to be weak, 0.30-0.49, medium, 0.5-1.0 is considered strong, Wong &Hiew (2005). According to Field (2005), correlation coefficient should not go beyond 0.8 to

avoid Multicollinearity. In this research, the highest correlation coefficient is 0.69, thereby implying that there was no multicollinearity problem in this research, since the value is less than 0.8. The NQ is positively and statistically significant (r=0.501, p<0.00), PV is positively and statistically significant (r=0.541, p<0.00 (2 tailed at 1% level of significance), CRE is positively and statistically significant (r=0.707,p<0.00(2 tailed at 1% level of significance), CS is positively and statistically significant, (r=0.434,p<0.00(2 tailed at 1% level of significance), CR is positively and statistically significant. ALL the NQ, PV, CRE and LP were correlated to customer retention and were positively and statistically significant.

SUMMARY OF FINDINGS

The study explored how customer satisfaction mediates the relationship between Customer Relationship Management (CRM) practices and customer retention among mobile phone users in public universities across western Kenya. Key objectives included examining how various CRM elements—Network Quality, Perceived Value, Customer Relational Experience, and Loyalty Programs—affect customer satisfaction and retention. Specific analyses were conducted to determine the direct effects of each CRM component on customer satisfaction and their indirect effects on customer retention, mediated by satisfaction. Through hypothesis testing, the study aimed to reveal if improved CRM practices could translate into greater retention, with customer satisfaction acting as a central link.

Findings on the relationship between Network Quality and Customer Retention indicated that Network Quality does not significantly impact retention ($\beta = 0.007$, t = 0.085, p = 0.932), as the null hypothesis was retained with a p-value above 0.05. This result contrasts with previous studies (e.g., Brown and Gulycz, 2001) that argue reliable network quality is a critical factor in customer retention by enhancing satisfaction. Although Network Quality was not a strong predictor of retention, prior research (Antreas and Opoulos, 2003; Cronin and Taylor, 1992; Spreng and Mackoy, 1996) supports its role in boosting satisfaction, suggesting that other CRM practices may have more direct roles in retention while Network Quality serves to reinforce overall satisfaction.

CONCLUSIONS

The study concludes that customer satisfaction significantly mediates the relationship between Customer Relationship Management (CRM) practices and customer retention

among mobile phone users in Western Kenya. By highlighting that customer satisfaction is a vital differentiator in competitive markets, the study demonstrates that CRM practices such as reliable network quality, clear communication of pricing, and loyalty programs contribute meaningfully to customer loyalty and repeated purchases. CRM practices allow organizations to create strong, ongoing associations with customers by better understanding their needs and expectations, which directly impacts long-term retention. Findings suggest that high customer satisfaction leads to increased customer retention, as satisfied customers are more likely to make future purchases and recommend the service to others. Notably, the study also found that reliability plays a direct role in customer retention, suggesting that customers prioritize dependable service. Consequently, mobile service providers should prioritize CRM strategies that enhance satisfaction to foster customer loyalty and retention.

RECOMMENDATION

The study recommends that mobile service providers prioritize Customer Relationship Management (CRM) practices that enhance customer satisfaction to strengthen retention rates. Key recommendations include investing in network reliability, as dependable service directly influences customer loyalty, and improving CRM strategies such as personalized loyalty programs, transparent pricing, and effective communication to better meet customer expectations. The study also advises that companies adopt a customer-centric approach, using CRM tools to build comprehensive profiles of customer needs and behaviors, thereby fostering long-term relationships and a competitive edge. Additionally, organizations should regularly assess customer satisfaction as a critical performance metric, as high satisfaction is shown to drive repeat purchases and customer referrals. Overall, implementing these strategies can support sustainable growth and increased profitability in a competitive marketplace.

Contribution of the findings to Theory and Practice

The study offers valuable recommendations for both theory and practice, aiming to bridge the knowledge gap on the mediation effect of customer satisfaction in the relationship between CRM practices—network quality, perceived value, customer relational experience, and loyalty programs—and customer retention. Academically, the findings contribute to literature on customer satisfaction and retention in the mobile phone industry, suggesting that customer satisfaction plays a critical role in driving loyalty. The research

model provides a framework for future studies, with a call for broader definitions of CRM and refined measurement techniques to analyze variable interactions. Practically, the study emphasizes the need for mobile service providers to prioritize relational strategies such as loyalty programs, trust-building efforts, and brand image enhancement to foster customer satisfaction and retention. Firms are encouraged to focus on customer perceptions of price fairness, improve service offerings, and provide added value through rewards and promotions. Clear, effective communication with customers is also critical, as it enhances trust and fosters loyalty. Finally, the study underscores that satisfied customers are key to profitability due to repeat purchases and lower acquisition costs, suggesting that investing in CRM tools can enable providers to better track and respond to customer needs, thereby strengthening customer relationships and retention.

REFERENCES

Adrian Payne & PennieFrow (2005), "A Strategic Framework for Customer Relationship Management". *Journal of Marketing*, 69, pp. 167-176. https://doi.org/10.1509/jmkg.2005.69.4.167

Anderson, E., Fornell, C., and Lehmann, D. R. (1994). Customer Satisfaction, Market Share, and Profitability: Finding from Sweden. *Journal of Marketing*, 58(July), pp. 53-66. https://doi.org/10.1177/002224299405800304

Antreas, D.A. and Opoulos, A.I. (2003). Modeling customer satisfaction in telecommunication: Assessing the multiple transaction points on perceived overall performance of the provider. *Product Operational Management*, 12(2), pp. 224-245. https://doi.org/10.1111/j.1937-5956.2003.tb00502.x

Bateson, J.E.G., & Hoffman, K.D. (2002). *Essentials of Service Marketing*. Fort Worth, TX: Dryden Press.

Bolton, R.N. & Lemon, K.N. (1999). A multistage model of customers' assessments of service quality and value. *Journal of Consumer Research*, 17(4), pp. 375-384. https://doi.org/10.1086/208564

Brown, S.A., and Gulycz, M. (2001). *Customer Relationship Management: A Strategic Imperative in the World of E-business*. New York: Wiley.

Cooper, D.R., & Schindler, P.S. (2006). *Business Research Methods* (10th ed.). New York: McGraw-Hill Irwin.

Crosby, L.A., Evans, K.R., & Cowles, D. (1990). Relationship Quality in Services Selling: An Interpersonal Influence Perspective. *Journal of Marketing*, 54(July), pp. 68-81. https://doi.org/10.1177/002224299005400306

Deighton, J. (2000). Frequency Programs in Service Industries. In *Handbook of Services Marketing and Management*, T. Swartz and D. Iacobucci, eds., 401–408. https://doi.org/10.4135/9781452231327.n27

Grönroos, C. (2004). The Relationship Marketing Process: Communication, Interaction. *Journal of Business and Industrial Marketing*, 19(2), pp. 99-113. https://doi.org/10.1108/08858620410523981

Kotler, P. & Keller, K.L. (2006). *Marketing Management* (12th ed.). New Jersey: Pearson Prentice Hall.

Saunders, M., Lewis, P., & Thornhill, A. (2007). *Research Methods for Business Students* (4th ed.). New Jersey: Prentice Hall.

Singh, H. (2006). The importance of customer satisfaction in relation to customer loyalty and retention. *UCTI Working Paper*, Asia Pacific University College of Technology and Innovation, Malaysia.

Tseng, Y.M. (2007). The Impacts of Relationship Marketing Tactics on Relationship. *International Journal of Research in Marketing*, 24(3), pp. 231-243.

Verhoef, P.C. (2003). Understanding the Effect of Customer Relationship Management Efforts on Customer Retention and Customer Share Development. *Journal of Marketing*, 67(4), pp. 30–45. https://doi.org/10.1509/jmkg.67.4.30.18685

Zeithaml, V.A., Berry, L.L., and Parasuraman, A. (1996). The Behavioral Consequences of Service Quality. *Journal of Marketing*, 60(2), pp. 31-46. https://doi.org/10.1177/002224299606000203