

# The Extent to which Customer Relationship Management Helps to Retain Telecom Customers

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## Abstract

The extent to which customer relationship management helps to retain customers in telecommunications companies is investigated in this study. Logistic regression was used to evaluate questionnaires from 120 respondents. According to the findings, respondents were dissatisfied with after-sale services (76.6%), support staff knowledge (80%), interaction facilities (78.3%), and customer information (76.6%). Predictor variable models account for approximately 90% of the variability, with a proportion of valid variables ranging from 77.3% to 88.3%. While age and income were statistically significant for staff knowledge (0.003) and customer information (0.004), the logistic regression coefficient for after-sale service shows that age and education have negative effects of  $-0.38$  and  $-0.37$ , respectively. Income and time have a detrimental impact on the model for staff knowledge. Besides, the chi-square result was significant for all tested CRM variables except for the facility used for customer interaction, which was insignificant ( $p = 0.54$ ). Thus, telecommunication companies must emphasize customer relationship management and allocate a fair budget to support good customer service, facility quality, as well as timely and sufficient product information.

## Keywords

Customer Relationship Management, Customer Retention, Telecom Customers, Tanzania

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## 1. Introduction

Telecommunication is an emerging term that describes the process and systems of information transmission electronically through networks in the form of tel-

ephone text, voice, data, images, and videos. A number of telecommunication companies have evolved worldwide, attracting millions of customers, also known as subscribers. Reports from [Loneragan et al. \(2004\)](#) revealed that at the beginning of 2004, there were over 1.3 billion mobile phone users worldwide. Based on an [African Development Bank \(2011\)](#) report, the number grew to over 400 million in 2009. The number of subscribers has been increasing spontaneously, and currently, the total world population is 6.648 billion, equivalent to 83.89% of the world's population, as evidenced in [BankMyCell \(2022\)](#).

The mobile telecommunication situation in Tanzania, based on [Tanzania Invest \(2022\)](#), reveals that the business began in 1997 with only MIC (T) Ltd (also traded as TIGO), but at the moment the country has seven active mobile operators, namely as Tigo, Vodacom, Airtel, Zantel, TTCL, Sasatel and Benson. The telecommunications sector is governed by the Tanzania Telecommunication Act of 1993, as amended by Act No.12 of 2003, and by the institution formed under the Act, the Tanzania Communications Regulatory Authority (TCRA). The country's telecommunications industry is highly regulated to ensure that market forces control demand and supply. As shown in [Statistica \(2022\)](#), regulatory bodies such as TCRA are responsible for providing conducive infrastructure and supporting services to ensure the smooth transmission of signals, messages, and data.

In line with that, the customer base of telecommunications has increased substantially over the years. [Tanzania Communications Regulatory Authority \(2011\)](#) illustrated that back in 2001 there were 275,557 subscribers, which increased to 17,985,919 by November 2010. According to [Tanzania Invest \(2022\)](#), the subscriber statistics as of the end of 2020 were 51 million. Concerning the market share, [O'Dea \(2022\)](#) reported that by June 2020, Vodacom had been recorded as having the largest share of telecom subscriptions with 31%, followed by Airtel (27%), Tigo (26%), Halotel (13%), Zantel (2%), TTCL (1%), and Smile (0.002%). Furthermore, Vodacom continued to be Tanzania's leading mobile provider by September 2021, with a 29.7 percent market share of mobile subscriptions. Airtel and Tigo ranked second and third.

Despite the stability in position among the top three, the change in the number of subscribers shows evidence of customer movement between the existing telecommunication companies and so the changes in market share almost on an annual basis as substantiated in [Ioanna \(2002\)](#). Besides, [Simões & Nogueira \(2022\)](#) reported that the market faces new challenges in retaining customers because they have very high expectations, which translate into a demand for a quick response and brand intransigence to empty promises. Customer mobility tends to be very costly because, according to [Micu \(2012\)](#), the cost of acquiring new customers is high compared to the cost of retaining existing ones. This brings in the critical aspect of customer retention, specifically how to address how companies can use the concept and practice of customer relationship management to retain customers.

Gerpott et al. (2001) described customer retention as a fundamental marketing construct, which reflects the continuity of the business relations between the customer and the company. According to Bowen and Chen (2001), Hoyer and MacInnis (2001), customer retention is defined as the strong commitment and practice of working to satisfy customers with the intention of developing long-term relationships with them in the course of doing business. Therefore, efforts and mechanisms must be put in place to establish customers' needs and what exactly will bring a high level of satisfaction to them.

Clark (1997) argued that it is vitally important to understand the factors that impact on customer retention and the role that it can play in formulating strategies and plans. Given the growing importance of customer behavior in the business market nowadays, telecom operators focus not only on customer profitability to increase market share but also on highly loyal customers and customers who churn. The emergence of big data concepts ushered in a new era of CRM strategies (Wassouf et al., 2020). In the same context of addressing customer retention, various efforts have been put forward to-date because the cost associated with customer gain is usually higher than the cost associated with maintaining it, as evidenced by Saini and Garg (2017). However, little has been done on CRM from the perspective of Tanzania telecommunications.

The motive behind this study reclines on the argument by Berry (1995) that despite the fact that relationship marketing is an old idea, it has become a new focus now at the forefront of service marketing practice and academic research. Services marketing's maturation, with an emphasis on quality, increased recognition of potential benefits for the firm and the customer, and technological advances have all contributed to its growth. Accelerating interest and active research are extending the concept to incorporate newer, more sophisticated viewpoints. Besides, Sheth and Parvatiyar (2002) reported that relationship marketing is considered a paradigm shift in both academic and practitioner literature. However, despite its popularity, relationship marketing has not yet evolved into becoming a discipline. The authors propose focus areas with respect to consumer behavior, services marketing, and marketing strategy, with the failure of international marketing, social marketing, and business marketing as a discipline.

In view of the above study motives and justification based on the established research gap, this study concentrated on establishing the relationship between CRM and customer retention, focusing on after-sale services offered to customers, the availability and quality of product knowledge, the quality of facilities where customers meet with the service providers, and the availability and usage of customer information to enhance quality, satisfaction, and hence retention.

Regarding structural organization, there are five sections to this paper. The first section provides an overview of telecommunications, data on composition, market share, and customer mobility from the past and present. The second section includes a literature review that highlights the concept, theoretical framework, and empirical framework of CRM and customer retention. The third sec-

tion discusses all aspects of research methodology, including how a researcher approaches issues such as research design, sampling, data collection, and data analysis. The fourth section contains significant findings and discussions about demographic characteristics as well as the critical role of customer relationship management in customer retention, as well as both descriptive and inferential statistics derived from the binary logistics regression. The fifth section summarizes the major findings and recommendations for future research.

## 2. Literature Review

The author conducted a thorough review of the existing related literature, and the general review findings revealed that a number of studies have been conducted in an attempt to determine the cause of customer retention. Furthermore, various theories and models of CRM and customer retention have been developed to date. This section therefore highlights crucial and relevant literature reviewed to support the current study. This section begins with key concepts of customer retention and CRM, then moves on to relevant theories and models, as well as an empirical framework highlighting existing and established gaps.

With regard to the key concepts of customer retention and CRM, [Aspinall et al. \(2001\)](#) argued that one of the most important topics in customer relationship marketing is retaining good customers (or those who may become good). Its significance is not limited to CRM; customer retention dates back to the days of traditional direct marketing and branding. Customer retention refers to a company's or product's ability to keep customers for an extended period of time ([Vroman et al., 1996](#)). This can be explained by the number of buyers and users who keep coming back for the goods and services offered over time. [Aspinall et al. \(2001\)](#) defined customer retention as activities such as customer retention, repeat/renewal, response to activity, and response to activity, rather than attitudinal ones such as satisfaction. Thus, according to [Aspinall et al. \(2001\)](#), there is a thin line between customer retention and CRM.

[Agariya and Singh \(2011\)](#) provided an overview of the existing academic literature on relationship marketing by summarizing definitions and major defining constructs based on the previous research findings in this area, reaching about 72 definitions and 50 general defining constructs of relationship marketing. However, there are some common elements in understanding CRM such that the concept can be explained as the establishment, development, maintenance, and optimization of long-term mutually valuable relationships between consumers and organizations. For instance, [Chalmeta \(2006\)](#) defined CRM as a set of business, marketing, and communication strategies, as well as technological infrastructures, that aim to build a long-term relationship with customers by identifying, understanding, and meeting their needs. As a result, it is regarded as a customer-focused business strategy that dynamically integrates sales, marketing, and customer service to create and add value for the company and its customers.

Research shows that organizations have been investing huge sums of money in CRM initiatives (Bull, 2003). This money is used to finance various investments such as CRM technologies and various marketing programs like Know Your Customer, staff training, advertising, promotion, public relations, and other sales efforts. Winer (2001) argues that CRM does not mean the same to everyone; it means different things to different people. For example, Barran et al. (2014) highlighted that CRM is a process that maximizes customer value through ongoing marketing activities founded on intimate customer knowledge established through collection, management, and leverage of customer information and contact history. CRM functionality can be divided into three main categories, which are marketing automation, sales force automation, and customer service and support (Persson, 2004). Additionally, according to Ngai (2005), CRM is comprised of four major functional areas: marketing, sales, services and support, and information and communication technology.

In terms of CRM-related theories and models, this study adopted the Five-Step Process Model developed by Payne and Frow (2006). The model categorizes the CRM process as strategy development, value creation, multichannel integration, performance assessment, and information management. Because it prioritizes customer acquisition and retention, the Five Processes Model is regarded as critical for improving CRM. The success of this model is due to its emphasis on developing and maintaining relationships with customers. The relevancy of this model to the current study was in the usefulness of the five processes in CRM, specifically in the acquisition and retention of customers. Moreover, the current study found the model to be among the strongest to explain CRM and retention, as evidenced in Payne and Frow (2006) with the argument that there are a number of CRM models, however most of them they appear to adopt an explicit cross-functional process-based conceptualization.

Furthermore, Payne and Frow (2017) argued for the broadening of the role of relationship marketing to consider ecosystems, the need for firms to shift from a value-in-exchange to a value-in-use perspective when addressing customer relationships, and the critical need to address dark side behaviour and dysfunctional processes in relationship marketing. Besides, Qiasi et al. (2012) recommend that prediction be directed at customer loyalty to identify both customers who have great loyalty to their preservation as well as customers with intentions to change to competitors, especially for modern telecommunications operators who face more complexity and competition in their business and need to develop innovative activities to capture and improve customer satisfaction and retention.

This study also made reference to the Affective Model, which originated from David Krathwohl and is one of the three domains in Bloom's Taxonomy as depicted in Bloom et al. (1956), which deals with things like emotions, feelings, attitudes, and moods. The model explains the different affective responses that can be experienced by customers upon stimuli. This can be in terms of subjective experience, the physiological response, and or the behavioral response, as also

depicted in [Krathwohl et al. \(1964\)](#). Their level of arousal or intensity differs depending on the nature of their stimuli and customer demographics. The current study found the Affective Model relevant because any effort to retain a customer must be linked to a combination of physical, emotional, and behavioral factors.

In line with that, [Pham \(1998\)](#) argued that when making decision one should also focus on these emotions because good service must reflect customer emotions when these emotions are related with the nature of product or service provided. Additionally, [Peter and Olson \(1996\)](#) argued that that good behavior of service provider creates positive response to the consumers. With regard to specific areas to be emphasized in the CRM processes, [Winer \(2001\)](#) pointed out the seven phases namely as data base creation, data analysis, customer selection, customer targeting, relationship marketing, privacy issues and metrics. Moreover, the architecture for evaluating customer retention model and respective strategies was proposed by [Agarwal and Ramasamy \(2022\)](#). Customer segmentation and customer lifetime value prediction, churn prediction, uplift modeling, and survival analysis are used to evaluate business strategy.

On the aspect of the empirical framework, customer retention is increasingly being recognized as an important managerial issue, particularly in the context of a saturated market or slower growth in the number of new customers. It is also recognized as a key goal of relationship marketing, owing to its potential to deliver superior relationship economics. However, research suggests that because generalised theories are assumed, both theorists and managers should consider business context when developing and implementing customer retention strategies, as evidenced by [Ahmad and Buttle \(2002\)](#).

A number of researchers have worked on the different aspects of enhancing customer retention including using customer trust and customer satisfaction as evidenced in [Pasape \(2022a\)](#) and [Pasape \(2022b\)](#) respectively. Other studies worked on the subject matter with respect to social CRM systems ([Lamrhari et al., 2022](#)), relationship layers of perceived indifferences ([Quach, 2022](#)), mediating roles of customer physiological and behavioral engagement ([Torkzadeh et al., 2022](#)), as well as the impact of the corporate image ([Leong, Ahady, & Muhammad, 2022](#)). Specifically, [Lamrhari et al. \(2022\)](#) proposed a social CRM analytic framework that incorporates a variety of analytical approaches aimed at improving customer retention, acquisition, and conversion. Following extensive testing and evaluation on various datasets, the framework recommends the extraction of relevant information to support decision-making processes aimed at understanding customers' experiences throughout their engagement on social media, with a focus on long-term customer relationships.

Furthermore, [Quach \(2022\)](#) argued that personal loyalty and local network could affect customer retention by reinforcing habitual loyalty, particularly with online consumption, and thus increase retaliation. All of these studies contributed to a better understanding of current knowledge and practice, as well as the identification of existing gaps in specific aspects of CRM such as services to cus-

tomers after purchase, the extent and quality of product knowledge by sales and technical teams, the quality of facilities used for interaction during business transactions, and key information shared with customers, primarily in fast-growing industries such as telecommunication.

Additionally, according to [Jarvenpaa \(2000\)](#), among the various mobile services, mobile marketing and, in particular, mobile CRM services have received a lot of attention. The reason for this is that the mobile medium's previously described properties endow it with very valuable and distinctive traits that may be used in conjunction with other channels to establish and manage individualized client connections. However, although mobile CRM systems are growing increasingly popular, they have yet to be fully explored. Despite some empirical studies on standard CRM solutions and mobile marketing services, as evidenced in [Davies, Sepulcri, and Thompson \(2003\)](#), research revealed that there is no study that focuses on the offering of mobile CRM services to consumers and their worth to the offering firms, as evidenced in the Italian market according to [Faccchetti, Rangone, Renga, and Savoldelli \(2005\)](#). Thus, more effort is needed in relationship marketing studies, particularly in the telecommunication industry.

### 3. Methods

In order to facilitate gaining concrete and contextual, in-depth knowledge and explorations of customer retention in telecommunication companies in the context of CRM, a quantitative research method focusing on a single case study approach was used. The study population consisting of seven Tanzanian mobile network companies, namely Vodacom, Airtel, Tigo, Halotel, Zantel, TTCL, and Smile, from those Airtel companies specifically in the Arusha region was selected as a case study. In reference to [Crowe et al. \(2011\)](#), [Shanks and Parr \(2003\)](#), and [Yin \(1999\)](#), the study uses a positivist research approach whereby four variables on CRM, namely as after-sale services, product knowledge, quality of facilities, and customer information, were established in advance and assessed whether they fit in towards testing and refining the theory under the study.

Furthermore, in an effort to guarantee the validity, representability, and replicability of the case study research findings to other places in the world, the author clearly defined and selected the case, as well as collected all the data using structured research instruments. Aside from being theoretically grounded, the study ensures that respondent validation, data analysis, and interpretation are clear and transparent, as advocated by [Crowe et al. \(2011\)](#). In addition to that, simple random samples were applied to obtain samples and ensure that each customer had an equal chance of being selected, leading to trustworthy research results reflecting the research population. In line with that, 120 questionnaires were self-administered following sample size calculation as per Equation (1).

$$\text{Sample size} = \frac{z_{\alpha/2}^2 \cdot p(1-p)}{e^2} \quad (1)$$

where:  $z$  = is the value from the standard normal distribution reflecting the con-



confidence level that will be used (e.g.  $z = 1.96$  for a 95% CI),

$\alpha$  = is the significance level (5%);

$p$  = percentage picking a choice (50%);

$e$  = margin of error (5%).

The first section of a questionnaire, which was on a nominal scale, was designed to collect information on demographic variables such as age, gender, economic status, and education level. The second section aimed to reflect the CRM using four variables, namely: after-sale services, product knowledge, quality of facilities, and customer information. The Statistical Package for Social Science (SPSS) aided data analysis whereby binary regression (Equation (2)) was used to assess the factors affecting customer retention and the extent of the effect in a given set of CRM variables.

The estimated binary logit models was as follows:

$$p(\text{AGREE}_i = j) = \frac{e^{\beta_0 + \sum_{i=1}^n x_i \beta_i}}{1 + e^{\beta_0 + \sum_{i=1}^n x_i \beta_i}} \quad (2)$$

where;  $j = 1$  (agree) or  $j = 0$  for disagree.

Whereby  $\beta_0 + \sum_{i=1}^n x_i \beta_i = \beta_0 +$  after-sale services + product knowledge  $\beta_2 +$  quality of facilities  $\beta_3 +$  customer information  $\beta_4 + \varepsilon_r$ .

Therefore the AGREE I denotes the  $i$ th individual agree ( $\text{AGREE}_i = 1$ ) or not agree ( $\text{AGREE}_i = 0$ ) with the factors,  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ , and  $\beta_4$  denotes the regression coefficients. According to [Oladapo et al. \(2018\)](#), the author used the logistic regression model design to predict customer retention in a telecommunications company with 95.5% accuracy.

Furthermore, the study compared the  $p$ -values for the four CRM factors to the study's significance level ( $p = 0.05$ ) to see if the relationship between the response and each aspect of the model's CRM is statistically significant. The study also examined the statistics in the model summary table using deviance  $R^2$  to determine how well the respective model fits the data, as well as whether a change in a predictor variable makes the event more likely or less likely.

Additionally, for categorical variables from a random sample, chi-square analysis was used to assess the goodness of fit between expected and observed results. Besides, the study calculated the expected change in odds for a unit increase in the predictor by determining the exponential value of  $B$  (Exp (B)) or the odds ratio. The aspects of data validity and reliability were also considered by pre-testing the questionnaire to determine if the research measures and addresses key research findings, as well as retesting methods and approaches recommended by [Cohen, Manion, & Morrison \(2017\)](#) and [Carmines & Zeller \(1979\)](#). Additionally, to supplement the primary data, the study collected relevant and potentially useful secondary data from local and international search engines, various online directories, mobile operator websites, and newsletters, as done in [Camponovo, Pigneur, and Rango \(2005\)](#).



## 4. Results and Discussion

This section has been organized into three sub sections, namely: respondents' demographic characteristics; the level of satisfaction with CRM contributing factors in telecommunication customer retention; and the extent of CRM's effect in telecommunication's customer retention.

### 4.1. Respondents' Demographic Characteristics

**Table 1** shows the data on demographic variables such as respondents' gender (male or female), age range, level of education, monthly income range, and time spent as a telecommunications client.

**Table 1.** Demographic characteristics of the respondents.

Variables	Range	Percent
Age	Below 25 years	18.3
	26 - 35 years	53.3
	36 - 45 years	24.2
	46 - 55 years	2.5
	Above 55 years	1.7
Gender	Male	60.0
	Female	40.0
Education	Primary or below	3.3
	Ordinary level	8.3
	Advanced level	36.7
	University	45.0
	Postgraduate and above	6.7
Income (in TShs)	Below 100,000	10.0
	100,000 - 600,000	50.0
	600,000 - 900,000	21.7
	900,000 - 1,300,000	11.7
	1,300,000 - 1,500,000	3.3
	Above 1,500,000	3.3
Length of using	Less than 1 year	15.8
	1 - 3 years	25.0
	3 - 5 years	15.0
	More than five years	44.2

Source: Analysis of field data (2018).

According to the data on demographic parameters (**Table 1**), 60% of respondents were males and 40% were females. In terms of age, the bulk of the respondents (53.3 percent) were between the ages of 26 and 35, and 36 and 45 (24.2 percent). Furthermore, statistics revealed that the majority of respondents (36.7 percent) had a university education, while those with an advanced secondary school level made up 45 percent. According to the results, the majority of respondents (50 percent) earned a monthly salary of between TShs 100,000 and TShs 600,000, according to the survey. Furthermore, when it comes to the length of time spent as a customer of a telecommunication firm, the data shows that 44.2 percent of respondents have been with the telecom company for more than five years. The demographic characteristics evaluation was critical since, as a result of deploying the CRM, there are currently changes in the approaches of customers in the researched areas in terms of gender and age. Companies must constantly monitor their performance in the market, incorporate customer feedback as input for evaluation of their internal processes, and consider demographic differences during market segmentation and targeting in order to serve the new and constantly evolving needs of the growing number of customers who care about social and environmental issues, as revealed in [Hitka et al. \(2019\)](#).

#### 4.2. The Level of Satisfaction with CRM Contributing Factors in Telecommunications Customer Retention

**Table 2** summarizes the results of the level of satisfaction and dissatisfaction for the four variables of customer relationship marketing, namely after-sale services, staff knowledge and ability, customer interaction facilities, and information shared with customers.

According to the descriptive findings, presented in **Table 2**, 76.6 percent of respondents are dissatisfied with organizations' after-sales services. While 80 percent of respondents were dissatisfied with the expertise and skills of support workers, 78.3 percent were dissatisfied with the facilities used for customer engagement. Firms have decent or adequate facilities to engage with customers, as evidenced by the fact that just 21.7 percent of respondents are satisfied with the sort of facility used by companies to interact with their customers, while 78.3

**Table 2.** Descriptive summary for customer relationship marketing.

Sub variables	Degree of Satisfaction		Degree of Dissatisfaction	
	Frequency	Percentage	Frequency	Percentage
1) After sale service	28	23.3	92	76.6
2) Knowledge and ability of staff	24	20	96	80
3) Facility used for customers' interaction	26	21.7	94	78.3
4) Information shared to customers	29	24.2	91	75.8

Source: Analysis of field data (2018).

percent are dissatisfied. This signifies that the company's customer-interaction system is ineffective; as a result, you won't be able to get accurate feedback on what the customer wants and your message or goal won't be conveyed.

Furthermore, only 24.2 percent of clients are happy with the information they received. Over 75% of respondents were dissatisfied with customer relationship management in terms of after-sales services, staff knowledge and competency, customer interaction facility, and customer information. The results support [Hitka et al. \(2019\)](#) findings that telecommunication companies need to revise their business strategies to more sustainably oriented ways of production, business practices and services offered, resource efficiency, building partnerships and business interaction, and communication effectiveness, because growing customer demands require re evaluation of marketing routine.

### 4.3. Extent of CRM's Effect in Telecommunication's Customer Retention

The results of the customer relationship management's role in the company's retention abilities are presented in this [Table 3](#).

**Table 3.** Binary logistic summary of customer relationship marketing.

No.	CRM Variables	Demographic Variables	$\chi^2$	R <sup>2</sup>	B	Significance	Exp (B) or Odd Ratio
1	Pleased with the after-sales services provided by the company	Gender	10.36 (0.001, d.f 5)	0.13	0.94	0.08	2.566
		Age			-0.38	0.20	0.686
		Education			-0.37	0.21	0.691
		Income			0.37	0.12	1.454
		Time			0.00	0.99	1.003
2	Staff knowledge and abilities	Gender	36.35 (0.000, d.f 5)	0.41	0.00	0.99	1.003
		Age			2.48	0.00	11.989
		Education			0.09	0.81	1.091
		Income			-0.11	0.69	0.898
		Time			-0.28	0.26	0.759
3	Facility used for customers' interaction	Gender	10.36 (0.54, d.f 5)	0.13	0.94	0.84	0.905
		Age			-0.38	0.37	1.325
		Education			-0.37	0.96	0.986
		Income			0.37	0.15`	1.424
		Time			0.00	0.81	1.048
4	Information shared to customers	Gender	9.94 (0.001, d.f 5)	0.12	0.02	0.96	0.023
		Age			-0.00	0.97	0.991
		Education			0.35	0.20	1.418
		Income			0.56	0.04	1.752
		Time			-0.00	0.99	0.997

Source: Analysis of field data (2018).

The study used the same predictor variables of age, gender, education, income, and time to assess the likelihood that respondents would agree or disagree on the satisfaction level of customer relationship marketing in customer retention as well as assess their substantial role in retaining telecommunication customers. The results revealed that the percentage of right variable predictions ranges from 77.3 percent to 88.3 percent.

The researchers employed chi-square values ( $\chi^2$ ) as an omnibus test to understand the influence of the predictor components. The findings (Table 3) show that the computed chi-square statistic comparing observed frequencies to those predicted by the linear model shows a significant for all CRM variables except for the facility used for customers' interaction, which was insignificant at (0.54) at a chi-square score value of 10.36 and 5 degrees of freedom.

This study also examined the Cox and Snell R Square and the Nagelkerke R Square values to determine how well the model fits the data. Results indicate that values of Nagelkerke's R-square range from 0.12 to 0.41, indicating the ability of independent factors to account for variance in the dependent variable and that all variables in the equation fall within that range, signifying an excellent model 7 based on Moore, Notz, and Fligner (2015).

Apart from that, the results of the logistic regression coefficient show that, when all other variables are held constant, the rewards variables age and education for being satisfied with companies' after-sales service have negative effects on the model of  $-0.38$  and  $-0.37$ , respectively, and none of the predictor variables are significant ( $p > 0.05$ ). Moreover, gender, age, and education have a beneficial effect on staff knowledge and skills, whereas income and time have a negative effect. Besides, the study revealed that age has a significant effect ( $p = 0.00$ ). With respect to the facility used for customers' interaction, the demographic variables age and education had a negative effect (with  $B = 0.38$  and  $B = 0.37$ , respectively), and none of the predictor variables was significant ( $p > 0.05$ ). Besides, in terms of the ability to share information with customers, gender, education, and income positively affected the model, but only income was significant ( $p = 0.04$ ), which is less than 0.05.

Linking the results with other available related literature, Reichheld (1993) indicated that personal contact between salespeople and customers adds to customer retention and that personnel who engage directly with consumers on a daily basis have a substantial effect on customer loyalty, based on the findings and other related literature. This one-on-one encounter helps to form social bonds that keep a relationship together (ibid.). Furthermore, Mummalaneni and Wilson (1991) discovered that salespeople with good personal relationships with buyers were given second chances when key item performance fell. Besides, in order to keep clients, personal communication has been extended to the elderly. For example, according to Sikkell (2013), the association between age and brand relationship strengthens, implying that businesses should signal to older consumers that they want to serve them throughout their life journey while staying

within their comfort zone. While the value of human interactions is emphasized, businesses must ensure that the issue of consumer privacy is addressed effectively. Accordingly, [Camponovo, Pigneur, and Rango \(2005\)](#) outlined key considerations about personalization and privacy, as well as outlined sensitivity handling recommendations.

[Reichheld & Dawkins \(1990\)](#) argues in another study that a CRM is based on the assumption that building a relationship with customers is the best method to make them loyal and that loyal clients are more profitable and can be retained. This is based on the argument that CRM improves a company's survival, competitive advantage, and excellence, so telecommunication companies must work to ensure CRM plays a significant role in establishing, nurturing, and maintaining mutual relationships between a company and its customers, as revealed in [Foya, Kilika, and Muathe \(2015\)](#). In line with [Gilchrist \(2015\)](#), the data also shows that the nature of a seller-customer relationship is conflicting. Telecommunications companies confront a dilemma in that they want to create relationships with their customers while still making money by providing them with products and services. When the social side of a relationship is weighed against business realities, it appears that some types of partnerships can only be found in specific environments. Customers are aware of the problem, according to a recent study. Commercial transactions and the fake intimacy provided by firms are not conflated with human relationships.

Subsequently, [Aaker \(1997\)](#) asserted that brands have distinct personalities characterized by sincerity, excitement, competence, sophistication, and roughness. Based on interpersonal connection theory, [Fournier, Miller, and Allen \(2008\)](#) claim that customers have a variety of explicit relationships with their brands. This study found that telemarketing companies overlooked two crucial findings from previous research: the contextual nature of brand meaning and the fact that many individuals do not use brands to define their lives, as well as the possibility that the meanings people attach to brands are situational. As a result, for many people, brand meaning is malleable, influenced by both circumstance and culture. These forces can intersect at times, resulting in unusual outcomes.

In order to better understand consumer preferences for mobile phones, [Petrzellis \(2010\)](#) identified quality, design and technical performance, brand, sense of belonging to a community, and status symbol as major considerations to consider when building a brand strategy. According to the findings of this study, the quality of products and after-sale services must be high, representing value for money. Employees must be able to explain product features in terms of design, technical performance, and other business-related data. Furthermore, the customer engagement facility must be user-friendly and provide a sense of consumer connection to the business. On top of that, in line with what [Foya, Kilika, and Muathe \(2015\)](#), the CRM initiatives and strategies in telecommunication companies need to be implemented hand in hand with customer interaction so as to improve customer service and reinforce current customer relationships.

## 5. Conclusion and Recommendations

In general, the study findings indicate that CRM, if well coordinated and managed, will aid telecom companies' efforts to retain customers. This paper, in particular, emphasizes the importance of client retention in the telecommunications industry and demonstrates how CRM can help organizations in this area. Telecommunications companies, on the other hand, must ensure that services provided during and after the sale are of high quality in order to please customers while developing CRM strategies. In addition, businesses must ensure that their offices, particularly those of agents and middlemen, provide a secure, private, and comfortable environment for client engagement.

Client awareness of a company's products and services must also be an important component of business operations. At all costs, timely and accurate information, as well as misleading market advertisements and promotions, must be avoided. These issues will not only please their customers but will also increase their market share as a result of retained existing customers and new clients, owing primarily to positive word of mouth from their retained customers.

Therefore, this study established that, the four assessed CRM variables, namely after-sales services, product knowledge, facility quality, and customer information, can be linked to existing CRM categories in terms of automation and functionality of marketing, sales, and sales force, as well as customer service and support, as also evidenced in Persson (2004) and Ngai (2005), and so telecom companies must strive to make the most of it in order to achieve customer retention.

Additionally, the findings suggest that enterprises in the telecommunications market cannot compete only on the basis of price competition. They must also strive to improve client knowledge about the products and services offered, as well as provide comfortable environments and a human-centered approach to service delivery. All of these efforts must be embedded in the product value chain in terms of value creation and performance management, as well as in marketing strategies to ensure clear information management and smooth multi-channel integration, as recommended by Payne and Frow's model (Payne & Frow, 2006). All of these must result in the right stimuli that have a positive impact on customers' emotions, feelings, and attitudes toward telecom companies' products.

## Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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