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ENHANCEMENT OF CUSTOMER RETENTION OF TELECOMMUNICATION COMPANIES IN TANZANIA THROUGH CUSTOMER SATISFACTION

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ABSTRACT

Little has been written on how customer satisfaction enhances customer retention in Tanzania's telecommunication companies. This study addressed that concern using six variables, namely rewards, tariffs, customer care, branch physical appearance, network quality, and network coverage. Using probability and non-probability sampling, 120 respondents to the questionnaire were selected. Results of descriptive and binary regression analysis revealed customers were not satisfied due to low rewards (93.3%), high tariffs (80.8%), unsatisfactory customer care (88.3%), uncomfortable branches (80%) and unstable network quality (75%). Concerning predictor variables, the probability of the model giving the correct prediction ranges from 10% to 71%, where the higher deviances were tariffs, branch appearance, and network coverage (71%), and rewards (57%). Chi square analysis, which compared the full model to a model with an intercept, found only gender (under network quality and coverage), age, income, education, and time for reward to be statistically significant (p<005). Furthermore, the logistic regression coefficient results showed that, for rewards, predictor variables such as age, income, and time have positive and statistically significant effects. The study concluded that rewards cause customer satisfaction and hence retention. However, if not well handled, high tariffs, uncomfortable branches, poor network quality, and poor coverage lead to customer dissatisfaction and low retention.

Keywords: *Customer Satisfaction, Customer Retention, Telecommunication Companies, Tanzania*

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INTRODUCTION

Customer retention has been reported by Gerpott et al. (2001) to be a fundamental marketing construct, which reflects the continuity of the business relations between the customer and company. The same authors revealed that in the past, it was an unpopular and unaccepted concept because companies thought it was more important to gain new customers than retain the existing ones. However, recently, companies have gained a better understanding of the importance of customer retention and have adopted it as a high-priority operational goal. This research, therefore, was trying to gain an understanding of why customers are leaving, what would bring them back, why customers might cancel a service or stop purchasing a product, and what new things could be put in place to retain them or win them back using Tanzania's telecommunication companies as a case study.

According to Lonergan et al. (2004), there were over 1.3 billion mobile phone users globally at the beginning of 2004, and by 2007, the demand for mobile services had increased at an average yearly rate of 9.1 percent. Less than two million people used mobile phones on the continent 13 years ago, according to a African Development Bank report (20110. In 2009, the number increased to almost 400 million, and by March 2012, just over 21 million of those individuals were living in Tanzania. According to Bank My Cell (2022), there are 6.648 billion smartphone users globally, representing 83.89 percent of the world's population.

Tanzania has the second-largest telecom market in East Africa, trailing only Kenya, with a penetration rate of 86 percent of the total population in 2019 and 48 million customers, according to the Tanzania Invest (2022). Besides, mobile subscriptions increased by 21%, from 39.7 million in 2015 to 47.1 million in 2019, while landline subscriptions fell by 47%, from 142,819 to 76,288. Vodacom had the highest percentage of telecom subscriptions in June 2020 with 31%, followed by Airtel (27%), Tigo (26%), Halotel (13%), Zantel (2%), TTCL (1%), and Smile (0.002%).

Besides, in June 2020, Tanzania introduced the Electronic and Postal Communications (SIM Card Registration) Regulations, 2020. The regulation makes it mandatory for users and owners of SIM cards in Tanzania to register by June 30, 2020 biometrically with their respective mobile network operators or authorized distributors, agents, or dealers using a national identity card or a national identity number. The most recent statistics with regard to the market share of mobile operators, O'Dea (2022), reported that as of September 2021, Vodacom remains the leading mobile provider in Tanzania with a 29.7 percent market share of mobile subscriptions.

Statement of the Problem

With respect to the current status of customer retention from a global perspective, various reports show that telecommunication operations are becoming more customer-driven. The most current challenge faced by the telecom industry today is the issue of competition, which is giving rise to the demand for service quality delivery. Customers are no longer willing to accept inferior quality at higher prices. Loanna (2002) argues that with few loyalty programs in the market, customers have been shifting from one operator to another, hence making it difficult to determine what really influences the decision of customers to stay with or leave their service providers. In the Tanzanian context, the number of service providers in the country has been increased from one, a state monopoly, to more than seven within a period of ten years. This brings about throat-cutting competition among service providers.

Companies are implementing specific retention strategies that target attracting new customers and enhancing the loyalty of existing customers (Molapo, 2015). In the last few years, telecoms in Tanzania have devoted so much time and money to training programs that instruct employees and service providers on the specifics of dealing with customers, being more courteous and smile training. With regard to the advancement of the telecom system, low interest rates, low fees, and charges are no longer tools to make customers satisfied and loyal. Customers are still complaining about poor customer service quality in telecom services, especially on satisfaction. Hence, companies lose the ability to retain them. Previous telecom studies on customer retention focused narrowly on service quality and customer satisfaction without attempting to link them in a model to further explore or explain customer retention. If a retention strategy is not planned, then customers will defect, irrespective of the efforts put in by telecom.

Thus, customer retention as well as relationships between customers and service providers is very crucial. Pisicchio and Toaldo (2021) argued that the integrated marketing communication process is considered a way to develop a long-term relationship with the organization's stakeholders and increase its results. But aside from that, there is still a lack of clarity about the factors that have a positive influence on it.

Study Objective

In view of that, the main objective of this study is to examine why telecom companies fail to retain their customers and what it takes to attract and retain existing customers, placing customer satisfaction at the center of attention using six variables known as rewards, tariffs, customer care, physical appearance of branches and shops, network quality, and network coverage. It is assumed that when the customer is completely satisfied, loyalty towards the mobile company is strengthened. Arusha is selected as a case study due to its significance in terms of a large market base and economic activities; hence, it makes a good representation and may produce substantial impact.

LITERATURE REVIEW

As businesses and entrepreneurs focus on methods of preserving and developing customer ties with their current customers rather than attracting new clients, the concepts of connection marketing and interactive marketing are garnering more and more attention. Due to its predominant focus on how to draw in new consumers rather than how to keep current ones, previous research on customer retention has been deficient in this area (Denove & Power, 2007). This study has chosen customer satisfaction to represent key elements of client retention by taking into account both theory and practice in relationship management. As a result, this section introduces the concept of the customer, including its attributes, existing customer classifications, and concepts of customer satisfaction and customer retention. A number of pertinent theories, models, and empirical research were also presented.

Parasuraman and Grewal (2000) define customer as an individual or business entity that buys the product, meaning that they acquire it and pay for it. Regardless of the product or industry they are in, most of the time, customers share similar characteristics. Coldwell (2001) characterized customers in the following manner: they have a particular need, they have enough money to buy what you are selling, they have decision-making power, and they need to have easy access to your product or service. Juneja (2007) categorizes customers as loyal customers**;** discount customers**,** impulsive customers**,** need-based customers, and wandering customers**.**

With all those different characteristics and categories of customers, satisfying them has to be very strategic and specific for each one. Efforts are needed to set common satisfaction treatments and standards too. Kotler (2000) defined satisfaction as a person's feelings of pleasure or disappointment resulting from comparing a product's perceived performance (or outcome) in relation to his or her expectations. Hoyer and MacInnis (2001) said that

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satisfaction could be associated with feelings of acceptance, happiness, relief, excitement, and delight. In another study, Day (1994) reported that the identification and satisfaction of customer needs leads to improved customer retention. Parker and Mathew (2001) expressed that there are two basic definitional approaches to the concept of customer satisfaction. The first approach defines satisfaction as a process, and the second approach defines satisfaction as an outcome of a consumption experience. These two approaches are complementary, as often one depends on the other. Customer satisfaction as a process is defined as an evaluation between what was received and what was expected (Oliver, 1981; Olson and Dover, 1979; Tse and Wilton, 1988), emphasizing the perceptual, evaluative, and psychological processes that contribute to customer satisfaction (Vavra, 1997).

In another study, Westbrook and Reilly (1983) proposed the value-percept theory, which defines satisfaction as an emotional response caused by a cognitive-evaluative process, which is the comparison of the product or service to one's values rather than an expectation. So, satisfaction is a discrepancy between the observed and the desired. Studies have also suggested that the cost of acquiring new customers is high compared to the cost of retaining the same (Micu, 2012). Therefore, customer retention is potentially one of the most powerful weapons that companies can employ in their fight to gain a strategic advantage and survive in today's increasingly competitive environment. 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 (Clark, 1997).

According to Hoyer and MacInnis (2001), customer retention is the practice of working to satisfy customers with the intention of developing long-term relationships with them. Zineldin (2000) said that retention could be defined as a commitment to continue to do business or exchange with a particular company on an on-going basis. Hoyer and MacInnis (2001) argued that customer retention is the practice of working to satisfy customers with the intention of developing long-term relationships with them. However, Bowen and Chen (2001) depicted that having satisfied customers is not enough; there has to be extremely satisfied customers. Thus, companies must set up mechanisms to know their customers and what exactly will bring a high level of satisfaction.

Thus, customer retention is an important element of the mobile telecommunication industry's strategy in today's increasingly competitive environment. Telecom management must identify and improve upon factors that can limit customer defection. These include employee performance and professionalism, willingness to solve problems, friendliness, level of knowledge, communication skills, and selling skills, among others. Furthermore, customer defection can also be reduced through adjustments in a bank's rates, policies, and branch locations (Leeds, 1992). Clearly, there are compelling arguments for telecom management to carefully consider the factors that might increase customer retention rates. Several studies have emphasized the significance of customer retention in the telecom industry. Evidence for this can be seen in Reichheld and Dawkins, 1990; Marple and Zimmerman, 1999; Page et al., 1996; Fisher, 2001). However, there has been little effort to investigate factors that might lead to customer retention. Most of the published research has focused on the impact of individual constructs, without attempting to link them in a model to further explore or explain retention.

In addition to the above-highlighted concepts and theories, the current study assessed the relevant models which are related and useful to the on-going research work, and in view of that, this study will be making reference to the Kano Satisfaction Model. In line with Kano et al. (1984), the model has the ability to offer some insight into the product attributes that are perceived to be important to customers. The model supports product specification and discussion through better development team understanding of the key attributes towards customer satisfaction, which are: threshold or basic attributes **(**the product is being manufactured for some type of consumer base), performance attributes **(**a skill, knowledge, ability, or behavioral characteristic that is associated with job performance), and excitement attributes (used to spur a potential consumer's imagination). These mentioned attributes can be used to help the customer discover the unknown need and enlighten the theme to be able to distinguish the current excitement from a future known feature or attribute. This model helps authors to know to what extent product specifications, consumer imagination, and performance attributes such as skill, knowledge, and ability can help to discover unknown needs for customer retention.

Pertaining to relevant empirical studies, Gerpott *et al.* (2001) investigated customer satisfaction, loyalty, and retention in the German mobile telecommunications market. Among 684 study respondents, 59% reported that customer retention couldn't be equated with customer loyalty and/or customer satisfaction. Rather, a two-stage causal link can be assumed in which customer satisfaction drives customer loyalty, which in turn has an impact on customer retention. However, these three factors are important for superior economic success among telecommunication service providers. In another study, Ibojo (2015) examined the impact of customer satisfaction on customer retention using a case study of reputable banks in Oyo state, Nigeria. The findings reveal that customer satisfaction independently accounts for 71.7% of the variation in customer retention and hence conclude that the effective satisfaction of customers will give room for customer retention.

Moreover, Turel and Serenko (2006) investigated customer satisfaction with mobile services in Canada and reported that perceived quality and perceived value are the key factors influencing satisfaction with mobile services. A more satisfied customer is less likely to complain, as customer care is reportedly adversely correlated with customer satisfaction. Hence, they concluded that customer satisfaction is the only single measure that better captures the range of services, prices, and quality, and more so, this measure is an important performance indicator useful for both regulators and mobile service providers. In summary, these studies support the theory that highly satisfied customers stay longer, buy more, and are less sensitive to price increases from their providers or price decreases from competitors, and this prompted the authors to investigate further what exactly these variables of customer satisfaction need to be taken into account in such a condition and how.

METHODOLOGY

The study used a single case study approach with mixed quantitative and qualitative research methods, whereby the research population consisted of seven Tanzanian mobile network companies, namely Vodacom, Airtel, Tigo, Halotel, Zantel, TTCL, and Smile. Based on Crowe et al. (2011), since the author intends to gain concrete, contextual, in-depth knowledge and multi-faceted explorations of the subject matter, a case study was adopted using Airtel in the Arusha region, one of the biggest cities in Tanzania. The study specifically uses a positivist approach, which establishes six customer satisfaction variables in advance and assesses whether they fit in; the main focus is testing and refining theory on the basis of case study findings as supported by Yin (1994) and Shanks (2003). To ensure that the research findings are valid, representable, and replicable in other parts of the world, all case study procedures were followed, including defining and selecting the case; data collection using structured research instruments based on theoretical sampling; respondent validation; and transparent data analysis and interpretation, as recommended by Crowe et al. (2011).

Thus, the sample cases range from the age of 15 years and above in the telecom industry because, according to the TCRA report, most of the mobile subscribers are around 10 years old, although a large number of them are over the age of 15. The study also involved all genders, non-educators and educated people. The respondents' economic status was from below TSH 100,000 to above TSH 1,500,000. With regard to sampling, both probability and non-probability sampling have been used. For probability, simple random samples were applied to obtain samples because each customer had an equal chance of being selected. These are the most valid or credible results because they reflect the characteristics of the population from which they were drawn, increasing the likelihood of obtaining a good representation of the population. The authors decided to collect at least 120 questionnaires to have enough support to come to a reasonable conclusion considering the case study as part of researching implementation science. The respondents were asked to give an account of their feelings or emotional bonding with their preferred mobile phone operator. In most of the cases, a self-administered approach was used to solicit factual responses in a timely manner.

Equation (1) was adopted as the base for the used sample size

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

Where: z = is the value from the standard normal distribution reflecting the confidence level that will be used (eg. z = 1.96 for a 95% CI)

α = is the significance level (5%)

p = percentage picking a choice (50%)

e = margin of error (5%)

A questionnaire was used for data collection. The first part of the questionnaire consisted of four items to establish the demographic characteristics of the customer, such as age, gender, economic status, and education level of respondents. This section was based on nominal scales. The second part covered overall customer satisfaction, in which variables such as rewards, tariffs, customer care, physical appearance of branches and shops, network quality, and network coverage were used mainly to determine the contribution of customer satisfaction in customer retention. Besides, interview questions were used as supportive findings. The Statistical Package for Social Science (SPSS) 16.00 aided the data analysis, whereby the study specifically uses the binary regression (equation 2) to assess the factors affecting customer retention in a given set of customer satisfaction (a-e).

The estimated binary logit models were as follows:

$$\mathrm{p}(\mathrm{AGREE}_i = \mathrm{j}) = \frac{e^{\left(\beta_0 + \sum_{i=1}^{n} x_i \beta_i\right)}}{1 + e^{\left(\beta_0 + \sum_{i=1}^{n} x_i \beta_i\right)}} \qquad (2)$$

Where; j = 1 (agree) or j = 0 for disagree

Whereby $\beta_0 \sum_{i=1}^{n} x_i \beta_i =$

β0+ rewardsβ1+tariffβ2+ customer careβ3+ physical appearance of branches and shops β4+ network quality β5 + network coverageβ6+ εi

Therefore the AGREE I denotes the ith individual agree (AGREE i=1) or not agree (AGREE i=0) with the factors, β1, β2, β3, β, β5 and β6 denote the regression coefficients.

This study also determines face and external validity by pre-testing the questionnaire, asking a series of questions, and often looking for the answers in the research of others to ensure study validity, because, according to Joppe (2000), validity determines whether the research truly measures that which it was intended to measure or how truthful the research results are. With regard to data reliability, to ensure repeatability or consistency, with

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reference to Carmines & Zeller (1979), the study used a retest method to determine the reliability of empirical measurements in which the same test was given to the same people after a period of time.

The Wald Chi-Squared test was used in this study to determine whether a combination of independent variables is collectively significant for a model before continuing with the binary logistics regression analysis. Additionally, this test was developed to establish the importance of each independent variable in a model. Additionally, the binary logistic regression was also used to determine whether there was a statistically significant correlation between the response and each component of the model's customer trust term. The significance level of the study was compared to the p-values for the five trust-related variables.

Furthermore, the study calculated regression coefficients to assess if a change in a predictor variable makes an event more or less likely, as well as to explain the ability of predictor factors to predict customer retention values with and without customer trust elements. In addition, the study used deviance R2 to examine the statistics in the model summary table to see how well the model fit the data.

In addition, the study determined the exponential value of B (Exp (B)), also known as the odds ratio, in order to determine the projected change in odds for a unit increase in the predictor. When Exp (B) is less than 1, increasing values of the variable correspond to decreasing odds of the event happening, and when Exp (B) is more than 1, increasing values of the variable correspond to increasing odds of the event happening. Oladapo et al. (2018) claim that logistic binary regression models can predict client retention in a telecommunications firm with 95.5 percent accuracy.

RESULTS

Demographic Respondents

According to the findings (Table 1), 40% of respondents were women and 60% of the respondents were men. According to the gender gap in subscribers, there are more male subscribers to telecommunications companies than there are female subscribers in Arusha Municipal. Additionally, the age distribution of the various respondents showed that the majority of respondents (53.3%) were between the ages of 26 and 35, followed by those between the ages of 36 and 45 (24.2%), while those under the age of 25 made up 18.3 percent. The findings imply that young to middle-aged people are the group most likely to use mobile communications services. The study also reveals that the majority of respondents (81.7%) had university or A-level education, while 19.3 percent had postgraduate degrees or less.

According to the statistics, almost 50% of respondents had a monthly salary of between Tshs 100,000 and Tshs 600,000, with the next group earning between Tshs 600,000 and Tshs 900,000 per month (21 percent). Only 6.6 percent of respondents said they had an annual income of Tshs 1,300,000 or more, compared to 12 percent who said they were poor with earnings of less than TSH 100,000. According to the findings, mobile phone users in the municipality of Arusha can afford the majority of the services provided. In addition, the results for the length of respondents' stays showed that 44.2 percent of respondents had worked for telecommunications companies for more than five years, followed by those who had worked there for between one and three years (25 percent), and 15.8 percent had worked there for less than a year.

Table 1: Demographic Characteristics of the Respondents

Variables	Measures	Frequency	Percent
Age	Below 25 years	22	18.3
	26-35	64	53.3
	36-45	29	24.2
	46-55	3	2.5
	Above 55	2	1.7
	Male	72	60.0
Gender	Female	48	40.0
Education	Primary or below	4	3.3
	O level	10	8.3
	A level	44	36.7
	University	54	45.0
	Postgraduate and above	8	6.7
Income	Below 100000	12	10.0
	100000-600000	60	50.0
	600000-900000	26	21.7
	900000-1300000	14	11.7
	1300000-1500000	4	3.3
	Above 1500000	4	3.3
Length of using telecom services	Less than 1 year	19	15.8
	1-3	30	25.0
	3-5	18	15.0
	More than five	53	44.2

Source: Analysis of field data (2018)

The contributing factors of customer satisfaction in customer retention.

This section presents a discussion of the results on the contribution of customer satisfaction to the retention ability of the company. Multiple items were used to address the objectives. All items were measured using a five-point likert scale, whereby 1 = strongly disagree, 2 = disagree, 3 = neutral, 4 = agree, and 5 = strongly agree. Descriptive frequency distribution statistics were computed for responses to each of the six items of customer satisfaction, namely: company's rewards, tariffs, nature of customer care, branch and shop appearance, and these are summarized in Table 2.

Table 2: Descriptive Summary for Customer Satisfaction

Sub variables		Degree of Agreement		Degree of Dis Agreement	
		Frequency	Percentage	Frequency	Percentage
(i)	Reward	8	6.7	112	93.3
(ii)	Tariff	23	19.2	97	80.8
(iii)	Customer care	14	11.7	106	88.3
(iv)	Physical appearance of branches and shops	24	20.0	96	80
(v)	Network quality	30	25.0	90	75.0
(vi)	Network coverage	78	65	42	35

Source: Analysis of field data (2018)

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Specifically, the descriptive results show that 93.3% of respondents disagree with companies' system of offering customer rewards, and only 6.7% of the respondents are satisfied with the rewards system. These results suggest that only 19.2% of respondents are satisfied with tariffs. Thus, telecommunication rewards and tariffs are not much good to customers in terms of cost or system of administration. Besides, while 88.3% of the respondents were not satisfied with the offered customer care service, 80% of the respondents found the physical appearance of its branches and shops to be uncomfortable for them, specifically with limited chairs, and hence they don't give comfort, especially when services take longer than expected. In terms of network quality and coverage, the findings show that while 65% of customers are satisfied with the wide coverage of telecommunication networks, even in remote areas, 75% are dissatisfied with the quality of network services.

Hence, the results in general suggest that, with the exception of network availability and coverage, the majority of subscribers are not happy with mobile telecommunication services in the range of 75% to 93.3%. The low satisfaction of young people could result from the fact that they are more demanding as a result of their greater familiarity with mobile technologies and a higher tendency to complain than older people. This result, together with demographic outputs, supports the findings that the younger age groups are less satisfied than the older age groups across all products and services industries. In VanAmburg (2004), Venn and Fone (2005), it was reported that higher satisfaction is significantly related to increasing age. Furthermore, Turel and Serenko (2006), in their study of mobile telecoms, revealed that there is a lower satisfaction level among young adults. Within the gender groups, this result reveals that female customers are more satisfied than males.

The higher unsatisfaction reported by the male customers may imply that they are not well satisfied with the impact of the service and/or the mobile telecoms on their functional activities (businesses, sales, etc.), while for the female customers, their low satisfaction could be due to less or no personal interaction with the sales process (mobile subscription is through vendors and not directly from the operators, unlike the fixed telecoms) or less influence of mobile telecoms on their relational activities. Moreover, Venn and Fone (2005) discovered that female gender is positively related to higher satisfaction.

In addition to the above descriptive statistics, the inferential statistics were conducted through logistic regression analysis (Table 3) to predict the probability that a participant would agree on the contribution of customer satisfaction towards customer retention.

Table 3: Binary Logistic Summary of Customer Satisfaction

Customer Variables	Demographics Variables	χ2 (d.f=5)	Cox & Snell R^2	Nagelkerke R^2	β	Sig	Wald	Exp (X)
1. Rewards	Gender	7.035	0.057	0.147	0.3	0.07	0.135	1.377
	Age				0.1	0.01	2.710	2.898
	Education				0.1	0.07	0.073	1.140
	Income				0.5	0.03	0.859	1.568
	Time				0.3	0.03	0.981	1.377
2. Tariffs	Gender	8.902	0.71	0.115	0.15	0.08	0.079	0.864
	Age				-0.55	0.07	3.155	0.575
	Education				-0.57	0.08	3.131	0.565
	Income				-0.04	0.84	0.041	0.957
	Time				-0.26	0.20	1.629	0.745
3. Customer Care	Gender	0.27	0.23	0.30	-0.09	0.88	0.025	0.907
	Age				-0.48	0.18	1.775	0.621
	Education				-0.35	0.35	0.859	0.708
	Income				-0.04	0.89	0.019	0.965
	Time				0.04	0.35	0.034	1.049
4. Physical appearance of branches and shops	Gender	3.65	0.30	0.47	-0.249	0.62	0.249	0.779
	Age				0.095	0.77	0.086	1.099
	Education				-0.456	0.14	2.189	0.634
	Income				-0.013	0.96	0.003	0.988
	Time				-0.203	0.34	0.910	0.817
5. Network Coverage	Gender	8.819	0.071	0.105	0.99	0.05	3.682	2.676
	Age				0.34	0.29	1.114	1.405
	Education				-0.46	0.13	2.238	0.630
	Income				0.01	0.99	0.000	0.999
	Time				0.09	0.63	0.226	1.096
6. Network Quality	Gender	13.145	0.104	0.143	0.14	0.00	8.543	4.068
	Age				0.38	0.18	1.801	1.461
	Education				0.17.	0.52	0.420	0.844
	Income				-0.06	0.76	0.097	0.943
	Time				-0.18	0.33	0.939	0.838

Source: Field data (2018)

The predictor variables were the respondents' age, gender, education, income, and length of use (time), from which the findings reveal that the probability of the model giving the correct prediction relationship ranges from deviance R^2 from 10.4% to 71%. Based on the fact that the higher the deviance R^2, which is always between 0% and 100%, and the better the model fits the data, the findings show that the variables tariff physical appearance and network coverage (by 71%) and reward by 57%.

Furthermore, the results of the chi square analysis, which compared the full model to a model with only an intercept, were statistically significant for

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variables such as gender (for network quality and network coverage), age, income, education, and time for reward, with a significant value less than p. Moreover, the results of the logistic regression coefficient show that when holding all other variables constant, the rewards variables that are most affected and statistically significant are age, income, and time. They are all given a positive effect and statistically significant as they are associated with a p value of less than 0.05. While for tariffs, all predictor variables have a negative effect and are not significant. For customer care, with the exception of time, other predictor variables have a negative effect and are not significant. With the exception of age, all other variables have a negative impact aside from physical appearance, and all six variables are associated with an insignificant value greater than 0.05. The single factor that affects network quality and coverage is age.

Furthermore the Wald Chi Squared Test, which was used to see if each independent variable added any incremental value to the model, revealed that the parameters for certain explanatory variables, which were listed above, could not be removed from the model; rather, they should all be included.

In terms of the exponential B value, also known as the odd value ratio, the findings revealed that all six customer rewards variables have a value greater than one, implying that increasing values of the variable correspond to increasing odds of the event occurring. Furthermore, for tariffs, all variables have values smaller than one, meaning that increasing the variable's value equates to increasing the probability of the event occurring. The remaining customer satisfaction variables yielded inconsistent findings. For example, only time was larger than one, whereas only age was greater than one for the physical look of branches and shops. Furthermore, for network coverage, education and wealth were less than one, whereas for network quality, only gender and age were more than one. Consequently, the demographic features of respondents heavily influence the likelihood of customer retention as a result of customer satisfaction.

Results of customer satisfaction surveys, which focus on customers of telecommunication companies, in general show that customers are not satisfied with the service provided because of price fairness, quality service, customer care problems, tariffs, reward problems, and a brand that does not fulfil its promises. Kukar-Kinney, Xia, and Monroe (2007) argued that price fairness is a very important issue that leads toward satisfaction. Charging a fair price helps to develop customer satisfaction and loyalty. It would enhance customer satisfaction and give the customer a feeling that he has chosen one of the best brands. Martin-Consuegra, Molina, and Esteban (2008) show that a customer's decision to accept a particular price has a direct bearing on satisfaction level and loyalty and indirectly.

In another study by Herrmann et al. (2007), it was concluded that customer satisfaction is directly influenced by price perceptions while indirectly through the perception of price fairness. Price fairness itself and the way it is fixed and offered have a great impact on satisfaction. According to Lommeruda and Srgard (2003), telecommunication services are like undifferentiated products; therefore, customers are not price-sensitive all the time and sometimes brand loyalty plays a role in brand preferences. In addition to that, the findings show that customers living within the low-income areas are more satisfied than those in the high-income areas, which can be explained by the fact that high-income area dwellers have a greater tendency to be more familiar with information technologies and be more demanding, and these factors could be responsible for the low satisfaction obtained in the high-income areas. This result confirms the findings of Bryant et al. (1996), which reported that the higher the income, the lower the satisfaction.

CONCLUSION AND RECOMMENDATIONS

This paper took into account all the dimensions that would be considered for customer satisfaction, like coverage quality, overall experience, and fulfilment of communication needs. Research has shown that customers are not satisfied with the services offered by telecommunication companies because the companies do not meet their primary needs. Descriptive results shed light on the positive trend of each of the variables selected for the study. In particular, the results highlighted the satisfaction of mobile subscribers with their respective networks. They expressed a high level of allegiance to their current brands on account of good coverage. Furthermore, they claimed the tariff rates of their network operator were not reasonable and comparatively high. Moreover, in the event of any problem, customer service centers located nationwide are not easily accessible. Therefore, mobile telecommunication companies in Tanzania must work hard to satisfy their customers not only by expanding their network coverage countrywide but also by ensuring that their reward and tariff systems are affordable and take into account value for money, as well as strengthening network quality, especially in rural areas, and making their branch officers comfortable for customers in all conditions while they are waiting for services.

Declaration of interest statement

The authors report there are no competing interests to declare. Further guidance on what is a conflict of interest and how to disclose it.

REFERENCES

African Development Bank report (2011). *Development as an Engine of Africa's Economic Development. African Development Bank*. Retrieved from https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/African%20Development%20Report%202011.pdf

Bankmy cell.com (2022). How many smartphones are in the world? . Retrieved from https://www.bankmycell.com/blog/how-many-phones-are-in-the-world)

Bowen, J.T and Chen, S. (2001). The relationship between customer loyalty and customer satisfaction. *International Journal of Contemporary Hospitality Management,* 13, (5), 213-217. https://doi.org/10.1108/09596110110395893

Carmines, E. G., & Zeller, R. A. (1979). *Reliability and validity assessment*. Sage publications.

Clark, A. E. (1997). Job satisfaction and gender: Why are women so happy at work?. *Labour Economics,* 4, 4, 341-372,https://doi.org/10.1016/S0927-5371(97)00010-9.

Coldwell, D. A. (2001). "Perceptions and expectations of corporate social responsibility: theoretical issues and empirical findings". *South African Journal of Business Management*, *32*, (1), 49-55.

Crowe, S; Cresswell,K; Robertson, A; Huby,G ; Avery, A and Sheikh, A (2011). "The Case Study Aproach". *BMC Medical Research Methodology*, 11:100 Page 2 of 9 http://www.biomedcentral.com/1471-2288/11/100.

Day, G. S. (1994). "The capabilities of market-driven organizations". *Journal of Marketing*, *58*, (4), 37-52.

Denove, C., & Power, J. (2007). *Satisfaction: How every great company listens to the voice of the customer*. Penguin.

Fisher, A. (2001). "Winning the battle for customers". *Journal of Financial Services Marketing*, *6*(1), 77-83.

Gerpott, T. J, Rams, W., and Andreas Schindler, A (2001). "Customer retention, loyalty, and satisfaction in the German mobile cellular telecommunications market". *Telecommunications Policy,*25, (4) ,249-269. https://doi.org/10.1016/S0308-5961(00)00097-5.

Herrmann, A., Xia, L., Monroe, K. B., & Huber, F. (2007). "The influence of price fairness on customer satisfaction: an empirical test in the context of automobile purchases". *Journal of Product and Brand Management*.

Hoyer, W. D. & MacInnis, D. J. (2001). *Consumer Behaviour*. 2nd ed., Boston, Houghton Mifflin Company.

Ibojo, B.O. (2015). "Impact of Customer Satisfaction on Customer Retention: A Case Study of a Reputable Bank in Oyo, Oyo State. Nigeria". *International Journal of Managerial Studies and Research* , 3, (2), 42-53 .

Ioanna, P.D. (2002). "The Role of Employee Development in Customer Relations: The Case of UK Retail Banks" .*Corporate Communication*, 7, (1), 62-77.

Joppe, M. (2000). "The Research Process". Retrieved December 16, 2006, from http://www.ryerson.ca/~mjoppe/rp.htm

Juneja,P. (2022). *Different types of customers.* Management Study Guide Content Team. Retrieved from https://www.managementstudyguide.com/types-of-customers.htm

Kano, N., (1984). "Attractive quality and must-be quality". *The Journal of the Japanese Society for Quality Control*, April, 39-48.

Kotler,P.(2000). *Marketing Management*. 10th ed, New Jersey, Prentice-Hall.

Kukar-Kinney. M, Xia, L and Monroe,K. (2007). "Consumers' perceptions of the fairness of price-matching refund policies". *Journal of Retailing*, 883,(3), 325-537 doi: 10.1016/j.jretai.2007.03.005

Leeds,B. (1992). "Mystery Shopping' Offers Clues to Quality Service". *Bank Marketing,* 24, (11), 24-27.

Lommerud,K.E and Sørgard,L (2003). "Entry in telecommunication: customer loyalty, price sensitivity and access prices". *Information Economics and Policy,* 15, (1), 55-72. https://doi.org/10.1016/S0167-6245(02)00086-0.

Marple, M., Zimmerman,M. (1999). "A Customer Retention Strategy". *Mortgage Banking,* 59, 11, 45-50.

Martín Consuegra, D., Molina, A. and Esteban, Á.(2008). "Market driving in retail banking". *International Journal of Bank Marketing*, 26, 4, 260-274. https://doi.org/10.1108/02652320810884795

Micu, C. (2012). "Knowing Your Customer through Satisfaction to Loyalty". *Marketing From Information to Decision*, pp. 255 - 273

Molapo,M.E 2015). *Customer retention strategies in the South African mobile phone network industry*. University of Free states, South Africa. Retrieved from https://scholar.ufs.ac.za/handle/11660/1165?show=full

O'Dea (2022). *Mobile operator market share in Tanzania 2018-2021*. Retreieved from https://www.statista.com/aboutus/our-research-commitment

Oliver, R. L. (1981). "Measurement and Evaluation of Satisfaction Processes in Retail Settings". *Journal of Retailing*, 57, (3), 25–48.

Olson, J. C., & Dover, P. A. (1979). "Disconfirmation of consumer expectations through product trial". *Journal of Applied Psychology, 64*(2), 179–189. https://doi.org/10.1037/0021-9010.64.2.179

Page, M., Pitt, L., Berthon, P. and Money, A. (1996). "Analysing customer defections and their effects on corporate performance: the case of Indco". *Journal of Marketing Management*, 12,617-27.

Parasuraman, A. and Grewal, D. (2000). "The Impact of Technology on the Quality-Value-Loyalty Chain: A Research Agenda". *Journal of the Academy of Marketing Science*, 28, 168-170. http://dx.doi.org/10.1177/0092070300281015

Parker, C., & Mathews, B. P. (2001). “Customer satisfaction: Contrasting academic and consumers' interpretations”. *Marketing Intelligence and Planning, 19*(1), 38–44. https://doi.org/10.1108/02634500110363790

Pisicchio,A.C & Toaldo ,A.M(2021) “Integrated marketing communication in hospitality SMEs: analyzing the antecedent role of innovation orientation and the effect on market performance”. *Journal of Marketing Communications,* 27:7, 742-761, DOI: 10.1080/13527266.2020.1759121

Reichheld, F.F. and Dawkins, P.M. (1990). “Customer Retention as a Competitive Weapon’. *Directors Broads,* 14, 42-47.

Shanks G, Parr (2003). *A: Positivist, single case study research in information systems: A critical analysis*. Proceedings of the European Conference on Information Systems Naples; 2003.

Turel, Ofir; Alexander Serenko (2006).”Satisfaction with mobile services in Canada: An empirical investigation". *Telecommunications Policy,* 30 (5-6): 314–331.doi:10.1016/j.telpol.2005.10.003.

Tanzania Communications and Regulatory Authority (TCRA), (2011). *Annual Communications Statistics Report*. Dar es Salaam

Tanzania Investment (2022). *Tanzania mobile market share subscription 2020.* Retrieved fromhttps://www.tanzaniainvest.com/mobile.

Tanzania Investment (2022). *Telecommunications in Tanzania Tanzania Voice Subscriptions* .Retrieved from https://www.tanzaniainvest.com/mobile.

Tse, D.K. and Wilton, P.C. (1988). “Models of Consumer Satisfaction Formation: An Extension”.*Journal of Marketing Research*, 25, 204-212. http://dx.doi.org/10.2307/3172652

Turel, O. and Serenko, A. (2006)."Satisfaction with mobile services in Canada: An empirical investigation". *Telecommunications Policy* 30 (5-6): 314–331.doi:10.1016/j.telpol.2005.10.003.

VanAmburg,D (2004). “Customer Satisfaction in a Changing Economy: Results from the American Customer Satisfaction Index (ACSI)”. *Quality Congress. ASQ's ... Annual Quality Congress Proceedings; Milwaukee* 58, 233-236.

Vavra, T. G., 1997. Improving Your Measurement of Customer Satisfaction: A Guide to Creating, Conducting, Analyzing, and Reporting Customer Satisfaction Measurement Programs. *America Society for Quality*, 44-60.

Venn, S. and Fone, D.L. (2005). “Assessing the influence of social demographic factors and health status on expression of satisfaction with GP services”. *Clinical Governance: An International Journal*, 10, (2), 118-125. https://doi.org/10.1108/14777270510594290

Westbrook,R.A. and Reilly,M.D (1983). ”Value-Percept Disparity: an Alternative to the Disconfirmation of Expectations Theory of Consumer Satisfaction", in NA - Advances in Consumer Research Volume 10, eds. Richard P. Bagozzi and Alice M. Tybout, Ann Abor, MI : Association for Consumer Research, Pages: 256-261.

Yin R (1994). *Case study research: design and methods.* 2 edition. Thousand Oaks, CA: Sage Publishing

Zineldin, M. (2000). “Beyond relationship marketing: technologicalship marketing”. *Marketing Intelligence & Planning*, 18 (1),9-23. https://doi.org/10.1108/02634500010308549