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## Relationship between Customer Satisfaction and Brand Loyalty

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### **Abstract:**

Globally, customer satisfaction remains a major predictor of brand loyalty and customer satisfaction in the telecommunication industry. Regardless of this, mobile telecommunication firms in Kenya are yet to achieve the required brand loyalty levels. This is evident given the high levels of switching freedom and churn rate levels, which rose from 21.20% to 31.45% in Safaricom, while in Airtel, this rose from 4.9% to 6.0% in 2021. Studies on the relationship between customer satisfaction and brand loyalty revealed both positive and negative results. The main purpose of this study was to assess the relationship between customer satisfaction and brand loyalty. The study hinged on the theory of planned behaviour. The research used descriptive research design. The target population was 124,849 subscribers drawn from four telecoms: Safaricom, Airtel, Telecom and Equitel. The stratified sampling technique was used to select a representative sample of 443 respondents. The primary data for the study was collected using a closed-ended survey instrument. Quantitative data was analyzed using both descriptive statistics (frequencies, percentages, means, standard deviation) and inferential statistics (Correlation and Regression). The findings indicated that there is a positive and significant relationship between customer satisfaction and brand loyalty, where customer satisfaction explained 50.9% of the variance in mobile telecommunication service providers' brand loyalty. The study concludes that customer satisfaction has a significant effect on brand loyalty. The study recommended that the telecom management should put more effort into service promptness, responsiveness, staff courtesy and customer understanding to enhance brand loyalty in their companies.

**Keywords:** Customer satisfaction, brand loyalty

### **1. Introduction**

Customer satisfaction has been shown to predict brand loyalty in many empirical studies, yet other authors still suggest that customer satisfaction is not a predictor of brand loyalty as they found weak, inconsistent, inconclusive, interchangeable and overlapping or no relationship between customer satisfaction and brand loyalty. Consequently, researchers and practitioners have widely recognised the growing customer switching freedom and increasing churn rates among customers. This has led to a disputed debate on the relationship between customer satisfaction and brand loyalty.

#### *1.1. Statement of the Problem*

Customer satisfaction has been shown to predict brand loyalty in many empirical studies. However, this cannot be viewed with precision, as demonstrated in the previous studies. This is because the precision association fails to account for a perfect or strong relationship between customer satisfaction and brand loyalty. Moreover, other authors still suggest that customer satisfaction is not a predictor of brand loyalty as they found weak, inconsistent, inconclusive, interchangeable and overlapping or no relationship between customer satisfaction and brand loyalty. Consequently, researchers and practitioners have widely recognised the growing customer switching freedom and increasing churn rates among customers. This has led to a disputed debate on the relationship between customer satisfaction and brand loyalty. Accordingly, it points to other constructs that play a role in explaining these relationships, such as switching cost, gender, personality traits, brand community, customer experience, relationship quality, social trust and corporate social responsibility.

#### *1.2. Objective of the Study*

Given the importance of customer satisfaction, which is more likely to develop strong and lasting relationships with a brand, the study's goal was to assess the relationship between customer satisfaction and brand loyalty in mobile telecom service providers. Case of Nairobi, Kenya.

### 1.3. Justification for the Study

This study intended to investigate mobile telecom service providers and other stakeholders on how customer satisfaction relates to brand loyalty among key customers of Kenyan mobile telecom service providers. In addition, the study is also intended to inform mobile telecom firms on customer satisfaction practices to adopt in order to attract and retain more customers as compared to competition for a greater market share.

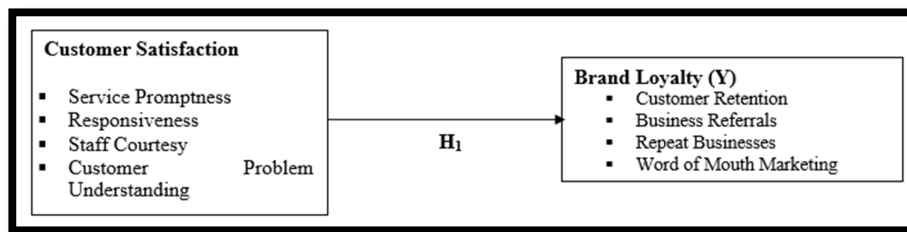


Figure 1: Conceptual Framework Showing the Relationships of the Variables of Study  
Source: Modified Algharabat et. al., 2019

The independent variable of the study is customer satisfaction, represented by practices such as service promptness, responsiveness, staff courtesy and customer problem understanding. The dependent variable of the study is brand loyalty, denoted by customer retention, business referrals, repeat businesses and word-of-mouth marketing. The study conceptualizes that customer satisfaction and brand loyalty have a relationship among customers of mobile telecom service providers.

## 2. Literature Review

### 2.1. Theory of Planned Behaviour

Theory of Planned behaviour (TPB) is an expansion-modified theory proposed by Ajzen (1985) based on Fishbein and Ajzen (1975) and Fishbein (1966). The Theory of Reasoned Action (TRA) has a better explanation capacity for the actual behaviour. TRA predicts and explains the relationship between an individual's attitude and behaviour based on the hypothesis that a behaviour occurs due to the volitional control of each individual. According to TRA, one will decide his actual behaviour, and actual behaviour is represented by behaviour intention, which is affected by attitude toward behaviour and subjective norm. Yet the will to control each individual is affected by several internal and external factors. Most behaviours have uncertainty of a certain degree. Thus, while investigating non-will factors affecting behaviours (such as opportunity, environmental resources, cooperation from others, and so on), the explanation capacity of TRA will decrease and we cannot offer reasonable explanations.

Ajzen (1985) and Ajzen (2005), therefore, expanded TRA to TPB, which has one more construct of added-perceived behavioural control, control ability toward the opportunity and resource when a person adopts his behaviour. This construct can enforce the prediction ability of behaviour, while the other three constructs are affected by external variables.

Behaviour Intention is the intentional degree of certain behaviour a person acts, which can reflect his own will. Through understanding the intention of a person's behaviour, the possibility of this behaviour being actually performed can be observed. Since the behaviour intention and the actual behaviour have an extremely close relationship, the intentional degree will determine the possibility of such behaviour. Thus, by measuring such a latent component as behaviour intention, the reason for adopting the real behaviour can be derived. It is hypothesized in TPB that the attitude toward behaviour, subjective norm, and perceived behavioural control are independent of each other and can affect the actual behaviour directly through behaviour intention.

Attitude towards Behaviour is the goodness or badness a person feels about behaviour or the positive or negative judgment after performing such behaviour. The attitude is not the behaviour itself, but both are consistent with each other. If a person can act following his own free will, his attitude shall be highly consistent with his behaviour.

Subjective Norm stands for the impact and stress from the social groups around a person when he decides to act in certain behaviour. The stress from these surrounding social groups (such as parents and friends) is mainly caused by the thought that this person considers them important and cares about their agreement to his/her behaviour. Ajzen and Fishbein (1975) thought that if the influence of the attitude towards behaviour is larger than the social stress, the attitude will decide the intention of behaviour, and vice versa.

Perceived Behavioural Control is defined as simply the degree to which a person tries to perform a certain behaviour. The control may be dominated by past training, experience and current obstacles. If a person has more chances, resources and performing capabilities and believes there are fewer obstacles, then the degree of Perceived Behavioural Control is higher, and the control cognition is stronger. Therefore, the influence of this perceived behavioural control tends to be more obvious.

TPB is based on the hypothesis that the behaviour intention was becoming more obvious when the attitude toward the behaviour tended to be more positive, the stress from the surrounding social groups was stronger, and the degree of the presumed control abilities was larger. Mathieson (1991) adopted TPB to explain the behaviours of students

using the trial balance and found out that the three major components of this theory (the Attitude toward Behaviour, the Subjective Norm and the Perceived Behavioural Control) could explain the Behaviour Intention properly.

The theory of Planned behaviour has been used to predict the behaviours (Watson *et al.*, 2014) and to study the link between attitudes and actions (Beedell & Rehmann, 2000; Webb & Sheeran, 2006). It is a social cognitive model that sheds light on the factors resulting in a particular behaviour (Ajzen, 1991) and has been applied successfully in studying the behaviours (Liao *et al.*, 2007). Research has been conducted that empirically validates the theory of planned behaviour where attitudes, subjective norms and perceived behavioural controls positively and significantly influence the particular intention towards brands (Chu *et al.*, 2016). To date, this theory has been used to study the range of intentions and behaviours from different paths of life (Kim *et al.*, 2013; Cook *et al.*, 2002; Arvola *et al.*, 2008), customer satisfaction (Liao *et al.*, 2007), and so on. However, not much research has been conducted on the brand equity perspective in the context of the theory of planned behaviour. Theory of planned behaviour has been given global attention over the last two decades (Amaro & Duarte, 2015; Botetzagias *et al.*, 2015).

Attitudes are considered a relatively permanent aspect that can help summarize the reason behind any psychological factor and determine intentions and behaviours (Kraus, 1995). Attitudes are silent beliefs that are perceived about the outcome of specific behaviours Chen and Dhillon (2003). According to the theory of planned behaviour, attitudes towards performing an act are positively related to behavioural intentions (Ajzen, 1991; Ajzen & Fishbein, 1980). TPB defines an attitude towards behaviour as *"the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behaviour in question"* (Ajzen, 1991). This suggests that a positive attitude is a motivation towards an intention to perform a specific behaviour, which means that a favorable individual attitude towards behaviours will lead to a stronger intention to perform behaviour (Ajzen, 1991). The attitude towards behavioural intentions is formed based on the cost-benefit evaluation of the outcomes of behaviour (Cheng *et al.*, 2006). The positive evaluation of the outcome results in a positive attitude, which depicts an individual's intention to perform behaviour (Ajzen, 1991; Cheng *et al.*, 2006; Lee, 2005), which, in other words, means that an individual's positive attitude leads to his firm intention to perform behaviour.

According to the theory of planned behaviour, the second determinant of behavioural intention is subjective norms. In the context of theory, subjective norms are defined as *"the perceived social pressure to perform or not to perform the behaviour"* by the individual (Ajzen, 1991). Subjective norms refer to the individual perception of society's opinion about an individual particular behavioural intention. In other words, the subjective norm is the perceived opinion of those specific people in a society whose point of view matters to an individual while performing a particular behaviour (e.g., relatives, close friends, coworkers/colleagues, or business partners). It is depicted as the function of normative beliefs, which are referred to as *"perceptions of significant others' preferences about whether one should engage in a behaviour"* (Eagry & Chailen, 1993). The theory suggests that this social pressure tends to have a more significant impact on behavioural intention than individual motivation (Mathieson, 1991). Moreover, according to Taylor and Todd (1995), the impact of subjective norms on behavioural intention is more significant when the actual behaviour provides the consumer with tangible and beneficial consequences. Subjective norms tend to leave a profound impact on purchase behaviour (Pavlou & Fygenon, 2006). Studies have been conducted in the domain of marketing and consumer behaviour that depicts the significant impact of subjective norms on behavioural intentions (e.g., Baker *et al.*, 2007; Cheng *et al.*, 2006; East, 2000; Laroche *et al.*, 2001; Lee, 2005). Psychological behaviours can affect individual attitudes towards luxury brands (Mahmood *et al.*, 2014).

According to the theory of planned behaviour, perceived behavioural control is the third determinant of behavioural intention. Perceived behavioural control can be described as *"the perceived ease or difficulty of performing the behaviour"* (Ajzen, 1991). It is a function of control beliefs that refers to an individual's perception of performing behaviour while considering the resources and opportunities' presences or absence and the individual's assessment of the level of importance of such resources/opportunities for the achievement of outcomes (Ajzen & Madden, 1986; Chang, 1998). These control beliefs can be personal or situational (Mathieson, 1991). Perceived behavioural controls tend to significantly and positively influence behavioural intention when an individual is self-confident in his ability to perform behaviour (Baker *et al.*, 2007; Cheng *et al.*, 2006; Conner & Abraham, 2001; Taylor & Todd, 1995).

## 2.2. Customer Satisfaction and Brand Loyalty

Brand loyalty is a customer's continuous preference to purchase the same brand in the future (Muchardie *et al.*, 2016). Brand loyalty provides a Brand Loyalty to the company (Winters & Ha, 2012) and, consequently, gives a positive company performance (Pihl, 2013). A loyal customer is willing to re-purchase other products from the same brand, bring new customers, and create a positive public image (Tu, Wang & Chang, 2012). Hence, customer satisfaction affects brand loyalty (Sprott, Czellar & Spangenberg, 2009). In addition, to repeat buying behaviour, brand loyalty also signifies the customer's positive attitude towards a brand or offering (Rather *et al.*, 2018).

Higgins (2006) described satisfaction as the state of being satisfied to exceed or meet expectations from perceived performance. Customer builds a positive attitude almost instantly if they are satisfied with a brand compared to a customer who is not satisfied with the brand (Harrigan, Evers, Miles & Daly, 2017; So *et al.*, 2014). A customer who does not take action against the providers by complaining directly to the providers is usually described as a dissatisfied customer (Anderson *et al.*, 2013). Dissatisfaction is a passive, slightly negative physiological orientation towards the relationship that occurs due to an attribute failure (Bowden, Gabbott & Naumann, 2015). Preliminary research on satisfaction in marketing literature indicated that satisfied customers might show loyalty to the focal brand (Hollebeek, 2011a). Empirical research has recommended that customer satisfaction positively influences brand loyalty (Algharabat *et al.*, 2019; France, Merrilees & Miller, 2016; Machado, Vacasde-Carvalho, Azar, André, & dos Santos, 2019). Also, some

studies have shown that active satisfaction exerts a greater influence on the formation of favourable attitudes toward a specific brand versus passive or non-satisfaction (Kang, Tang & Fiore, 2015; Leung & Jiang, 2018). However, many other studies have found mixed results disputing customer satisfaction as a determinant of brand loyalty.

Nonetheless, research confirming the main contribution of customer satisfaction to brand loyalty still lacks either exploratory or quantitative studies (Calder et al., 2016; Dwivedi, 2015; So et al., 2016b). Therefore, there is an urgent need to validate the relationship between customer satisfaction and brand loyalty (Fernandes & Moreira, 2019).

### 3. Research Methodology

#### 3.1. Research Design

The research design for this study was descriptive. Descriptive design is ideal because it presents a systematic and accurate description of certain groups to estimate the frequency or proportion of subjects in a specified population, analyze relationships between variables, or make specific predictions. It aims to determine the answers to who, what, when, where and how questions.

In other words, it is concerned with the conditions or the relationships that exist and describe social events, social structure and social situations, such as determining the nature of the prevailing conditions, practices and attitudes; opinions that are held; processes that are going on; or trends that are developed (Zikmund, 2003). In this study, it helped to explain how customer satisfaction relates to brand loyalty (Zikmund, 2003). The descriptive research design was intended to produce statistical information about the aspects of the research issue, in this case, brand loyalty, that may interest managerial decision-makers. Equally, the effect relationship between CRM practices and brand loyalty among mobile service operators necessitates the use of correlational design in this study.

Descriptive research is a technique where information is gathered from a sample of people using a questionnaire or interview technique. The method of data collection used is often either observation or interview or questionnaire (Kothari, 2004). Correlation design was used to compare two or more characteristics from the same group and to explain how characteristics vary together and predict one from the other.

#### 3.2. The Study Area

The study area of this research was Nairobi, which is the capital city of Kenya in eastern Africa. Nairobi is the most populous city in East Africa, with a current estimated population of about 3.5 million. The city is home to thousands of Kenyan businesses and over 100 major international companies and organizations. This makes it the 4<sup>th</sup> largest city in Africa in terms of trading volume, capable of making 10 million trades a day. This population is served by various telecommunication companies, including Safaricom PLC, which has the highest market share for mobile data subscriptions, and other major players, such as Airtel Networks Ltd., Finserve Africa Ltd., Telkom Kenya Ltd., and Mobile Pay Ltd. Other companies include iWay Africa Kenya, which announced an agreement to merge its internet service provider operations with Echotel International (Mwencha, 2015).

The Capital City is situated in South-Central Kenya, 140 Kilometers (87 miles) south of the Equator. It is surrounded by 113 km<sup>2</sup> (70 mi<sup>2</sup>) of plains, cliffs and forest that make up the city's Nairobi National Park. It is adjacent to the eastern edge of the Rift Valley. It is situated in the south-central part of the country, in the highlands, at an elevation of about 5,500 feet (1,680 metres). The city lies 300 miles (480 km) northwest of Mombasa, Kenya's major port on the Indian Ocean. The city is situated at 1°09'S 36°39'E and 1°27'S 37°06'E and occupies 696 square kilometres (270 sq mi). The City is situated between the cities of Kampala and Mombasa. The Ngong Hills, located to the west of the city, are the most prominent geographical feature of the Nairobi area. Mount Kenya is situated north of Nairobi, and Mount Kilimanjaro is towards the south-east.

#### 3.3. Target Population

According to Zikmund (1997), a population is any complete group of entities that share some common set of characteristics. Davis and Cosenza (1989) also mentioned that a population is the complete set of units of analysis being investigated. The target population of this study was 124,849 registered subscribers visiting customer service shops within the CBD in Nairobi County.

The researcher collected data from customers of these Mobile companies in Kenya, which was stratified and judgmentally selected because they were offering easier access and most conversant with mobile satisfaction and brand loyalty, representing the case institution and how they could benefit from the study. Safaricom, Airtel, Telkom Orange and Equitel have their headquarters and major service points (Customer Service Shops) spread across Nairobi and this generated a desired population mix for the survey. Therefore, the target population was intercepted from the major service point from which the respondents were sampled for interrogation after receiving the service. Owing to the nature of the study and the type of data required for analysis, only subscribers who have visited the mobile subscribers' service point and interacted with their staff were sampled for the questionnaire and hence became the most appropriate for generalization. In addition, Nairobi County is considered a business and service hub for the national and county governments and many private enterprises; hence, the crowd convergence in the city makes it more convenient and eases the burden of respondent approachability.

Stratum of Participants		Estimate of Total Subscribers	Accessible Population at Service Points in CBD
Safaricom	(A)	64.5%	80,528
Airtel	(B)	27.9%	34,833
Telekom	(C)	6.3%	7865
Orange	(D)	1.3%	1,623
Total		100%	124,849

Table 1: Study Target Population  
Source: Communication Authority of Kenya, 2023

### 3.4. Sample Size and Sampling Techniques

#### 3.4.1. Sampling Frame

A sampling frame is also a working population because it provides a list that can be worked with operationally; therefore, a researcher draws study samples from the list (Zikmund et al., 2013). Malhotra and Krosnick (2007) argue that the sampling frame facilitates the formation of a sampling unit that refers to one member of a set of entities being studied, which is the material source of the random variable. The sampling frame of this study constituted 124,849 subscribers of the four mobile telecom firms in Nairobi County, as per table 1.

#### 3.4.2. Sample Size

For confidentiality, each of the four companies was referred to by a letter (A, B, C and D) in this study. A sample is a smaller group of subjects drawn from the population in which a given study was conducted for the purpose of drawing conclusions about the population targeted. According to Kothari (2010), a sample is a section of a population selected for examination and analysis and used to make inferences about the population from which it is obtained. This subgroup is carefully selected to be representative of the whole population with the relevant characteristics. Each member or case in the sample is referred to as a respondent or participant. Kombo and Tromp (2006) argued that an effective sample population should be diverse, representative, accessible and knowledgeable on the topic being investigated. Kothari (2004) adds that the result from the sample can be used to make generalizations about the whole population as long as it is truly represented. This is because a good sample, to be truly representative of the population, results in a small sampling error, viable, economical and systematic. The study was executed to different subscribers of the mobile telephony who qualified for the study design. There are several approaches to determining the sample size, which include using a census for small populations, imitating a sample size of similar studies, using published tables, and applying formulas to calculate a sample size.

A sample size of 399 respondents was selected using Cochran (1963; 1977) and Yamane (1967) (Israel, 2013) to calculate the sample size from the sample frame for the study, as shown below.

$$n = \frac{N}{1 + Ne^2}$$

Where; n – is the Sample Size

N – is the Population Size

e – is the level of precision (95%; e = 0.05)

Given that N=124,849

$$e^2 = (0.05)^2$$

$$n = \frac{124,849}{[1 + [(124,849) * (0.05^2)]]} = 22545.$$

A margin error of 0.05 was used to work out the sample size, which, according to Yamane (1967), gives the largest sample size at a given confidence level. Substituting the margin error of 0.05 and the target population of 124,849 in the formula above gives a sample size of 399. To cater for non-response, the study increased the sample by 10% to 443 sample size. Jones (1996) noted that to reduce non-response bias, there is a need to do oversample by 10%. According to Bartlett et al. (2001), the most common and time-effective way to ensure a good response rate is to increase the sample size by 1-50% in the first distribution of the survey. The proportionate sample sizes for each stratum were computed on the basis of the size of the stratum and the target population. This study, therefore, used a sample population of 443 respondents for data collection, as shown in table 2.

Stratum of Participants	Accessible Population Customer Service Shops in CBD	Expected Sample size for Strata
Safaricom	80,528	286
Airtel	34,833	123
Telekom	7,865	28
Orange	1,623	6
Total	124,849	443

Table 2: Distribution of Sample Size  
Source: Researcher, 2023

### 3.5. Data Collection Procedure

The researcher obtained a letter of introduction from Maseno University, which enabled the application for a research permit from National Commission of Science, Technology and Innovation (NACOSTI) before commencing the study. The researcher thereafter availed the introduction letter to the respondents to explain the purpose of the research. To ensure that the instrument used for data collection was valid and reliable, a pilot study was conducted at Jamii Telecommunications Limited in Migori County, which helped to clarify issues arising from the questionnaire.

### 3.6. Data Analysis

This study used a quantitative data analysis method. Quantitative data such as statistical information on the biographical backgrounds of the respondents, customer satisfaction, brand loyalty practices, and the moderating effect of relationship marketing were analyzed by descriptive, correlational and multiple regression methods. Descriptive statistics such as frequency distribution and percentages were used to summarize the biographical information of study respondents, while Pearson's correlation and multiple regressions were used to analyze the relationship between service promptness, responsiveness, staff courtesy and customer problem understanding and brand loyalty among the sampled mobile telecom service providers as recommended by Hair, Babin, Money & Samouel (2003). These variables were tested from a general multiple regression equation of the form:

$$Y = \beta_0 + \beta_1 X_1 + \varepsilon \text{ (Source: Adopted from Hair et. al., 2003).}$$

Where:

- Y = Brand Loyalty
- $\beta_0$  = Constant brand loyalty when customer satisfaction is nil
- $\beta_1$  = Beta coefficients
- $X_1$  = Customer Satisfaction (measured on a summated scale of 1 to 5)
- $\varepsilon$  = Error term

## 4. Results and Discussion

### 4.1. Customer Satisfaction

In this study, customer satisfaction was measured by 14 statements. Respondents were asked to rate on a scale of 1 to 5, where:

- 1= strongly disagree,
- 2= Disagree,
- 3= Neutral,
- 4= Agree and
- 5= Strongly Agree.

The analysis is shown in table 3.

	N	Min	Max	Mean	Std. Deviation
Overall experience with all kinds of products and services meets my expectations	406	1	5	3.25	1.192
I am often satisfied with a series of services and products	406	1	5	3.63	.903
Handling of complaints is adequately reliable and compares favourably to my idea of ideal expectations	406	1	5	3.60	.893
Quality of voice calls is high	406	1	5	3.40	1.26
Customers' view on costs' affordability	406	1	5	3.62	1.023
I am satisfied with the promptness and satisfactory quality of all kinds of products and or serial services	406	1	5	3.89	.930
I am satisfied with the swiftness of delivering solutions to my problems	406	1	5	4.16	.960
The self-service platforms are user-friendly and easy to access	406	1	5	3.95	.882

	N	Min	Max	Mean	Std. Deviation
Staff courtesy and Quality cooperation with the staff I of high-value	406	1	5	3.77	1.121
The Company is responsive to all my mobile telephony needs	406	1	5	3.88	.830
I am satisfied with the high responsiveness in dealing with my needs	406	1	5	4.19	.795
All my problems are clearly understood, accurately interpreted and resolved	406	1	5	3.83	.730
I am satisfied with the highly maintained professional focus while dealing with customers	406	1	5	4.25	.850
The technical competence of engineers and their response time is satisfying	406	1	5	4.07	.810
Grand Average Score				3.82	0.941

Table 3: Descriptive Statistics on Customer Satisfaction

Source: Field Data, 2023

Table 3 shows that the highest ranked customer satisfaction dimension is "I am satisfied with highly maintained professional focus while dealing with customers" ( $M = 4.25$ ,  $SD = .850$ ), followed by "I am satisfied with the high responsiveness in dealing with my needs" ( $M = 4.19$ ,  $SD = .795$ ) and then "I am satisfied with the swiftness of delivering solutions to my problems" ( $M = 4.16$ ,  $SD = .960$ ) and "The technical competence of engineers and their response time is satisfying" ( $M = 4.07$ ,  $SD = .810$ ). Further, a majority of the respondents were in agreement that self-service platforms are user-friendly and easy to access ( $M = 3.95$ ,  $SD = .882$ ). In the same breath, they are satisfied with the promptness and satisfactory quality of all kinds of products and or serial services ( $M = 3.89$ ,  $SD = .930$ ). Respondents were also in agreement that the company is responsive to all their mobile telephony needs ( $M = 3.88$ ,  $SD = .830$ ) and that all problems are clearly understood and, accurately interpreted and resolved ( $M = 3.83$ ,  $SD = .730$ ). Most respondents also agreed that staff courtesy and quality cooperation were of high value ( $M = 3.77$ ,  $SD = 1.121$ ). As well, respondents agreed they are often satisfied with a series of services and products ( $M = 3.63$ ,  $SD = .903$ ). Other than that, customers also view on costs affordable ( $M = 3.62$ ,  $SD = 1.023$ ). A majority of respondents were also in agreement that the handling of complaints is adequately reliable and compares favourably to their idea of ideal expectations ( $M = 3.60$ ,  $SD = .893$ ). Moreover, the quality of voice calls is high ( $M = 3.40$ ,  $SD = 1.26$ ). The least ranked customer satisfaction dimension was "The overall experience with processes, all kinds of products and or serial services meet my expectations" ( $M = 3.25$ ,  $SD = 1.192$ ).

Overall, the items on customer satisfaction summed up to a mean of 3.82 and a standard deviation of 0.941. The results generally indicate that the respondents agreed with 14 dimensions describing their perceptions about customer satisfaction in mobile telecom, given that all the means of the 14 dimensions were  $> 3$ .

This is consistent with Aksoy (2013), Magasi (2016), and Taleghani *et al.* (2011) that customer satisfaction can influence business sustainability, competitiveness and profitability directly or indirectly. Customer satisfaction exists to enhance customers' degree of promptness, staff courtesy, responsiveness, and customer problem understanding.

#### 4.2. Brand Loyalty

In this study, Brand Loyalty was measured by 7 statements. Respondents were asked to rate on a scale of 1 to 5 points, where:

- 1= strongly disagree,
- 2= Disagree,
- 3= Neutral,
- 4= Agree and
- 5= Strongly Agree.

The analysis is shown in table 4.

	N	Min	Max	Mean	Std. Deviation
It is likely that I am willing to use all kinds of products or serial services of the preferred service provider and pay more than competitors' prices for the benefits received	406	1	5	3.84	.844
I am likely to continue with repeat purchasing of all kinds	406	1	5	3.95	1.067
It is likely that I have formed an emotional attachment with the service provider and will consistently keep the relationship over long term	406	1	5	3.74	.907
High customer retention translates to high performance	406	1	5	3.92	.934
I am likely to praise the preferred service provider and advertise it verbally, online and on social media platforms	406	1	5	3.98	.837
I am likely to refuse the promotion activities of other service providers and maintain price tolerance	406	1	5	3.75	.965

	N	Min	Max	Mean	Std. Deviation
It is likely that I will always return to purchase the products and services of the preferred service provider and resist change from the competitors	406	1	5	4.16	.742
Grand Average Score				3.91	0.899

Table 4: Descriptive Statistics on Brand Loyalty  
Source: Field Data, 2023

Table 4 shows that the highest-ranked brand loyalty measure is "It is likely that I always return to purchase the products and services of the preferred service provider and resist change from the competitors" ( $M = 4.16$ ,  $SD = .742$ ). Next was "I am likely to praise the preferred service provider and advertise it verbally, online and on social media platforms" ( $M = 3.98$ ,  $SD = .837$ ) and then "I am likely to continue with repeat purchasing of all kinds of products or serial services of the preferred service provider" ( $M = 3.95$ ,  $SD = 1.067$ ). Respondents also were in agreement that high customer retention would translate to high performance ( $M = 3.92$ ,  $SD = 0.934$ ). Further, most respondents agreed that they are likely to refuse the promotion activities of other service providers and remain price tolerant ( $M = 3.75$ ,  $SD = .965$ ). Also, respondents agreed that they have formed an emotional attachment with the service provider and will consistently keep the relationship over long term ( $M = 3.74$ ,  $SD = .907$ ). However, the least ranked brand loyalty measure is "It is likely that I am willing to use all kinds of products or serial services of preferred service provider and pay more than competitors' prices for the benefits received" ( $M = 3.84$ ,  $SD = .844$ ). The study results gave a grand average mean score of 3.91 and a standard deviation of .899. These findings depict a picture that the respondents agreed with measures of brand loyalty on telling their perceptions about brand loyalty in the mobile telecom operators in Kenya.

These findings concurred with the findings by Coleman (2012), who found out that the higher the loadings, the more important the variable. The results also agree with other studies by Accenture Report (2016) that brand loyalty is an important part of business longevity and there is no business that can survive over long term without establishing a loyal and mutually beneficial customer base. Equally, Gures, Arslan & Tun (2014) also noted that a loyalty relationship is a dominant factor in successful marketing practice.

#### 4.3. Factor Analysis

Factor Analysis test was run on relationship marketing, customer satisfaction and brand loyalty to establish unidimensionality, construct and discriminant validity of items and estimate composite scores of the variables using factor scores to identify significant factors. Total variance explained from initial extraction and rotated extraction was reported. The composite scores for each component were estimated using factor scores generated from factor analysis. These scores were used in regression and moderation analysis to reduce the variables to a manageable size and better understand the variables. Factor loading assumes values between zero and one, of which loadings below 0.30 are considered weak and unacceptable (Nachmias & Nachmias, 2008). The results are reported in the sub-sections that follow.

According to Coleman (2012), the sample size in this study consisted of an appropriate size for factor analysis. The sample fittingness for the analysis was assessed by the resulting correlation matrix and using Kaiser-Meyer Olkin (KMO) measure of sampling adequacy 102 with scores of .920, which falls into the meritorious category. The suitability for factor analysis was also evaluated using Bartlett's Test of Sphericity, whose result was significant at .000 (approximate chi-square = 7086.292). This means that the items were sufficient for factor analysis. The results are presented in the sections that follow.

##### 4.3.1. PCA for Customer Satisfaction

The study tested the validation of data for customer satisfaction using exploratory factor analysis. Using SPSS, the results of this factor analysis, with the assumption of extracting via the principal components method and rotating via varimax, were presented in table 5.

	Component				
	1	2	3	4	5
Overall experience of all kinds of products and services meets my expectations.				.686	
I am often satisfied with a series of services and products.		.874			
Handling complaints is adequately reliable and compares favourably to my idea of ideal expectations.					.891
Quality of voice calls is high		.496			.742
Customers view on costs affordable					
I am satisfied with the promptness and satisfactory quality of all kinds of products and or serial services	.959				
I am satisfied with the swiftness of delivering solutions to my problems.		.874			
The self-service platforms are user-friendly and easy to access					.373
Staff courtesy and Quality cooperation with the staff I of high-value			.775		
The Company is responsive to all my mobile telephony needs.			.689		



	Component				
	1	2	3	4	5
I am satisfied with the high responsiveness in dealing with my needs	.479				
All my problems are clearly understood, accurately interpreted and resolved.				.602	
I am satisfied with a highly maintained professional focus while dealing with customers.				.800	
The technical competence of engineers and their response time is satisfying.			.697		
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization. a. Rotation converged in 8 iterations.					

Table 5: Factor Loading for the Construct Customer Satisfaction  
Source: Field Data, 2023

The 14 items for customer satisfaction were subjected to principal components analysis using spss version 22. Prior to performing PCA, the suitability of data for factor analysis was assessed. Factors with factor loadings of above 0.3 were retained for further data analysis. All the items met this criterion and none dropped. Therefore, the 14 items were retained for further analysis. The Kaiser-Meyer Oklin measures of sampling adequacy are shown in table 6.

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.897
Bartlett's Test of Sphericity	Approx. Chi-Square	855.923
	Df	105
	Sig.	.000

Table 6: KMO and Bartlett's Test  
Source: Field Data, 2023

The sample suitability for the analysis was assessed by the resulting correlation matrix and using Kaiser-Meyer Olkin (KMO) measure of sampling adequacy 105 with scores of .897, which fell into the meritorious category and showed a high partial correlation and that factor analysis was appropriate. The suitability for factor analysis was also evaluated using Bartlett's Test of Sphericity, whose result was significant at .000 (approximate chi-square = 855.923). This means that the items were sufficient for factor analysis.

#### 4.3.2. Correlation between Customer Satisfaction and Brand Loyalty

Pearson's correlation between customer satisfaction and brand loyalty is 0.713,  $p = 0.000$ . This implies that a unit increase in customer satisfaction has an increasing effect of 71.3% in brand loyalty. Therefore, it suggests that there is a strong, positive and statistically significant association between brand loyalty and customer satisfaction.

		Customer Satisfaction	Brand Loyalty
Customer Satisfaction	Pearson Correlation	1	
	Sig. (2-tailed)		
	N	406	
Brand Loyalty	Pearson Correlation	.713**	1
	Sig. (2-tailed)	.000	
	N	406	406

Table 7: Correlations between Customer Satisfaction and Brand Loyalty  
\*\*. Correlation is significant at the 0.01 level (2-tailed)

Source: Field Data, 2023

#### 4.4. Regression Analysis on the Relationship between Customer Satisfaction and Brand Loyalty

The first objective of the study sought to assess the relationship between customer satisfaction and brand loyalty in mobile telecom service providers in Kenya. Simple linear regression analysis was performed to calculate the effect of brand loyalty and customer satisfaction constructs. The results of the model summary are shown in table 8.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.713 <sup>a</sup>	.509	.508	.40357
a. Predictors: (Constant) Customer Satisfaction				

Table 8: Model Summary for Customer Satisfaction and Brand Loyalty  
Source: Field Data, 2023

The  $R^2$  value indicates how much variation in the outcome variable is attributed to the predictor variables incorporated in the model. Based on the model, customer satisfaction accounted for 50.9% of the total variation in brand loyalty ( $R^2 = .509$ ).

The ANOVA result, which reports how well the regression equation model fits the data that predict the dependent variable and brand loyalty, is shown in table 9.

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	68.136	1	68.136	418.355	.000 <sup>b</sup>
	Residual	65.798	404	.163		
	Total	133.934	405			
a. Dependent Variable: Brand Loyalty						
b. Predictors: (Constant), Customer Satisfaction						

Table 9: Analysis of Variance-ANOVA for Customer Satisfaction and Brand Loyalty  
Source: Field Data, 2023

The findings in table 9 reveal F-statistic [ $F(1, 404) = 418.355, p < 0.05$ ], which is statistically significant. The findings imply that the model regressing brand loyalty on customer satisfaction was a significant fit. This was also supported by the reported  $p=0.00$ , which was less than the conventional probability of 0.05 significance level. The findings for model coefficients are shown in table 10.

	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.557	.119		13.107	.000
	Customer Satisfaction	.578	.028	.713	20.454	.000
a. Dependent Variable: Brand Loyalty						

Table 10: Regression Coefficient for Customer Satisfaction and Brand Loyalty  
Source: Field Data, 2023

The Regression Coefficient findings in table 10 reveal that the effect of customer satisfaction on Brand Loyalty of mobile telecommunication service providers was positive. The Regression Coefficient results show a positive change between brand loyalty and responsiveness dimensions of customer satisfaction. Therefore, one unit change in customer satisfaction leads to a 71.3% positive change in brand loyalty [ $\beta=0.713, t\text{-values } 20.454, p < 0.05$ ].

From the fitted model, the study established the following new regression model:

$$Y = 1.557 + 0.578X_1$$

The findings are consistent with those (Tonder & Daniël, 2018), who established that the effect of customer satisfaction components on customer loyalty was positive and significant.

## 5. Summary of Findings, Conclusions and Recommendations

### 5.1. Summary of Findings

The study objective one sought to establish the relationship between customer satisfaction and brand loyalty in mobile telecom service providers in Kenya. From this objective, it was hypothesized that there is no significant relationship between customer satisfaction and brand loyalty in mobile telecom service providers in Kenya (RH01). Simple linear regression analysis was used to test this hypothesis. Customer satisfaction was separately regressed on brand loyalty. The study established that customer satisfaction had a significant and positive effect on brand loyalty. The results established that all the four constructs of customer satisfaction (promptness, responsiveness, staff courtesy and customer problem understanding) were significantly and positively related to brand loyalty.

The findings indicated that all the four components of Customer satisfaction were positively correlated to brand loyalty. Customer problem understanding indicated the highest correlation to brand loyalty at 0.605, followed by service promptness at 0.603, staff courtesy at 0.550 and finally, responsiveness at 0.412. In general, the model summary results indicated that the  $R$ -value represents the simple correlation and is 0.395, implying a moderate correlation. The  $R^2 = 0.156$ ,  $p=0.000$  indicates how much of the total variation in the dependent variable, Brand Loyalty, can be explained by the independent variable. Customer Satisfaction explains 15.6% ( $R^2=0.156$ ) variation in brand loyalty.

There was a positive relationship between customer satisfaction and brand loyalty at 5% level of significance ( $P\text{-value}=0.000$ ). The study supported the first hypothesis that customer satisfaction has an influence on the brand loyalty process in Kenya. Moreover, responsiveness emerged as the best dimension or construct of customer satisfaction in predicting brand loyalty in the mobile industry in Kenya.

### 5.2. Conclusions

The purpose of this study was to investigate the effects of customer satisfaction and brand loyalty on mobile telecom service providers in Kenya. The null hypothesis for this objective stated that there is no significant relationship between customer satisfaction and brand loyalty in mobile telecom service providers in Kenya. The findings suggested

that there was a statistically significant and positive relationship between customer satisfaction and brand loyalty in mobile telecom service providers in Kenya. Therefore, any improvement in customer satisfaction leads to a positive improvement in brand loyalty. The overall mean of the responses was 3.82, which indicates that the majority of the respondents agreed with the statements on customer satisfaction. Customer satisfaction has improved responsiveness to customer service delivery and maintained professionalism in handling customer issues.

### 5.3. Recommendations

This study established that customer satisfaction has a significant effect on brand loyalty and, therefore, has a major role to play within the mobile telecom service providers in Kenya in influencing the increase of brand loyalty of their customers. In obtaining brand loyalty, the mobile telecom service providers in Kenya need to consider focusing on customer satisfaction as a predictor variable and its four components, mainly responsiveness and customer problem understanding, have a positive and significant effect on delivering a brand loyalty experience to customers. There is a need for the mobile telecom service providers in Kenya to recognize the aspects of the services they provide that will influence customers' positive attitudes and behaviour towards retention, repeat purchases, word-of-mouth marketing and business referrals. The study recommends that stakeholders in the mobile telecom service providers in Kenya should invest more of their resources in customer satisfaction since it positively affects the level of brand loyalty in mobile telecom service providers in Kenya. This would have a direct impact on the mobile telecom service providers in Kenya's productivity and financial growth through reduced customer defections, enhanced re-purchases and new purchases, thereby improving mobile telecom service providers in Kenya after sales visits.

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