

# DETERMINANTS OF CUSTOMER LOYALTY DURING THE COVID-19 PANDEMIC: EVIDENCE FROM THE NIGERIAN TELECOMMUNICATION INDUSTRY

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## **Abstract**

*The study examines the determinants of customer loyalty in the Nigerian telecommunication industry during the Covid-19 pandemic. Primary data was obtained online with the aid of Google Forms Application from 266 subscribers of the four foremost GSM providers in Benin City. All the copies of the questionnaire were filled and found usable. The responses were analyzed using SPSS 23.0 version. Multiple regression analysis was used to establish the relationship between the dependent and independent variables of the research. The findings revealed that service quality, corporate image, and switching cost are important determinants of customer loyalty in the Nigeria telecommunication industry during the Covid-19 pandemic. Price and prompt customer service/care are found not to be a determinant of customer loyalty. The study recommends that GSM providers should take into cognizance the factors influencing customer loyalty during the Covid-19 pandemic and lay emphasis on them in their marketing policy.*

**Keywords:** Covid-19, Customer loyalty, GSM, service, telecommunication.

## **Introduction**

Over the last decade, the telecommunications industry and related services have shown

impressive growth worldwide, becoming one of the key sectors of developed economies and playing an increasingly important role in the life of society. The telecom sector continues to be at the epicenter for growth and innovation for any industry. Nigeria is believed to be one of the largest telecommunication markets in the world, having an estimated subscriber base of around 149.2 million (NCC, 2017). Every year the subscriber base has continued to increase drastically (Nwakanma, Udunwa, Anyiam, Ukwunna, Obasi & Bubagha, 2018). According to the Nigerian Bureau of Statistics (2017), the telecommunication sector is a major contributor to the country's Gross Domestic Products (GDP) accounting for about 9.1% of the Nigerian Gross Domestic Product (GDP).

Presently, four major mobile phone operators are operating in Nigeria, namely, MTN, Airtel, Globacom, and 9Mobile. The market is dominated by MTN with 61,834,602 million subscribers; this is immediately followed by Globacom with 37,359,804 million subscribers while Airtel came in penultimate position with 34,123,187 million subscribers and 9Mobile with 20,806,821 million subscribers in last position (National Bureau of Statistics/Nigerian Communication Commission, 2017). Telecommunication service providers offer a wide range of value-added services, including Short Message Service (SMS), Multimedia Message Service (MMS), voice services,

information service, ringtone, games, electronic transaction, roaming, internet service, video call, and customer care service (NCC, 2017).

There is intense competition existing among telecom operators in Nigeria. In this competitive market, customers are not loyal to any particular telecommunication company. The major telecommunication companies are continuously forced to consider how to create a loyal customer base that will not be eroded even in the face of severe competition. Consequently, it has become a paramount concern for the companies to stay alive and win the market share by making more customers loyal to their firms because obtaining a new customer can cost six to seven times more than keeping or retaining current customers (Hafez & Akther, 2017).

Though consumers show certain purchasing behaviors and loyalty in their usual daily lives, consumer behavior changes considerably during emergencies (Wang, An, Gao, Kipro, & Geng, 2020). This has been the case during the recent Covid-19 pandemic and its associated shutdowns. The Covid-19 pandemic has had several and severe implications for human activities globally. Apart from the accompanying loss of lives, the pandemic birthed a universal economic, marketing, and financial crisis. The stay-at-home, social distancing, and other containment orders issued across different countries, in a bid to curb the spread of the pandemic, created profound demand and supply shocks in practically all segments of the global economy (El-Erian, 2020). At the level of the individual consumer, the pandemic and measures taken to curb it also resulted in a drastic change in consumer behavior including buying habits, buying motives, spending patterns as well as customer loyalty (Sheth, 2020).

In 2001, when the Global System of Mobile, GSM, was introduced in Nigeria, subscribers had to pay high rates to be able to acquire and use the services. Also, consumers of these services had not much choice somewhat due to limited providers; coverage, and lack of adequate information both on information technology and GSM, hence were ready to

accept the service as they were (Nwakanma *et al*, 2018). Thus, as the year went by and with the entrance of more network providers, customers' knowledge of both information technology, and Mobile Number Portability (MNP), subscribers now sought better services and value for their money. Consequently, telecommunication network subscribers are tired of network failures, drop calls, high tariffs, poor service quality, poor customer care, and unsustainable promotions. Hence, these factors drive subscribers switching decisions among network providers. Therefore, investigating the determinants of loyalty especially in a highly competitive market such as the Nigeria telecommunication sector during the Covid-19 pandemic is an interesting subject for further research (Izogo, 2017). In light of the foregoing, this study, therefore, examines the determinants of customer loyalty in the Nigerian telecommunication industry during the Covid-19 pandemic.

### **Concept of Customer Loyalty**

Customer loyalty is a key component of a brand's long-term sustainability. Oliver (1999) defined customer loyalty as a deeply held commitment to rebuy or re-patronize a favorite product/service steadily in the future, thereby causing repetitive same-brand or same brand-set purchasing, regardless of situational influences and marketing efforts that have the potential to cause switching behavior. Casidy and Wymer (2016) describe customer loyalty as one's feelings of devoted attachment to the loyalty object, rather than repeated commercial transactions. Thakur (2016) sees customer loyalty as customers' intention to remain committed to a specific provider in the marketplace by repeating their purchasing experiences. Customer loyalty is considered an important intangible asset to several companies (Jiang & Zhang, 2016). A review of the literature reveals that numerous marketing scholars have adopted Oliver's definition of customer loyalty (Haryanto, Moutinho & Coelho, 2016). Customer loyalty is viewed as the strength of the relationship between an individual's relative attitude and repeat patronage. To deal with the highly competitive market, organizations are trying not only to attract and satisfy the customer but also to

create a long-term relationship with these customers (Gremler & Brown, 1996). It is said that a company can create loyalty by giving a reward for their loyalty. Training employees on relationship marketing skills are the way to make a customer loyal to a particular company.

Uncles, Dowling, and Hammond (2003) opined that customer loyalty can be categorized as (a) attitudinal-loyalty to the brand whereby customers have a favorable set of stated beliefs towards the brand purchased while (b) behavioral-loyalty to the brand is where loyalty to a certain brand is defined mainly about the pattern of past purchases, and (c) co-determinants of buying brand where loyalty is moderated by contingency variables such as individual's current circumstances, their characteristics, and/or the purchasing situation faced (Amin, Ahmad & Hui, 2012).

Customer loyalty is still attracting scholars' attention due to its obvious significance. Realizing the antecedent factors of customer loyalty and the relationships among these factors are considered important research directions (El-Adly & Eid, 2016). Marketing researchers are also advised to keep their eyes on customers in the marketplace by investigating their needs, wants, and factors that could affect their evaluations, attitudes, choices, and various purchasing behaviors. Jiang and Zhang (2016) indicate that customer loyalty is a vital source of competitive advantage for different companies. However, customer loyalty is regarded as a challenging issue for existing corporations, especially in competitive markets (Nyadzayo & Khajehzadeh, 2016).

### **Determinants of Customer Loyalty during the Covid-19 Pandemic**

The determinants of customer loyalty considered in this study are service quality, price/tariff, customer care/service, corporate image, and switching cost. The dimensions are explained briefly in this section.

#### *Service Quality*

Service is any activity or benefit that one party offers to another that is basically intangible and does not result in the ownership of anything (Kotler & Armstrong, 2012). Service quality is

a global judgment or attitude concerning a particular service (Fogli, 2006). Berry, Parasuraman, and Zeithamal (1988) opined that service quality has become a significant differentiator and the most powerful competitive tool which all service organizations want to possess. Service quality is the result of an appraisal process where customers compare their expectations about a service with their perception of the service to be received (Gronroos, 1984; Parasuraman *et al.*, 1985, 1988, 1994). The service providers can create a competitive advantage by providing a high level of service quality (Yoo & Park, 2007). Service quality is determined by the SERVQUAL model which includes the components of reliability, responsiveness, assurance, empathy, and tangibles (Parasuraman *et al.*, 1985). Service quality dimensions vary from industry to industry. Customer loyalty occurs when the quality of the network of the service provider is satisfactory and there are minimal rates of call failure (Jahanzeb, Tasneem, & Khan, 2011). The above literature can come up with the following hypothesis:

*H1: There is a significant relationship between service quality and customer loyalty during the Covid-19 pandemic.*

#### *Price/Tariff*

Olotewo (2017) defined price as the amount customers are ready to offer for the value, benefit, or utility they derive from the use of a service. It refers to the sum charged for service by the suppliers. Price plays a vital role in the telecommunication market especially for the mobile telecommunication service providers (Kollmann, 2000). In the telecommunication industry, price includes the sum of money customer pays for recharge voucher, SMS charge, data bundles, call rate, and other charges. A network with lower prices has a high tendency to attract a large subscriber base leading to an impressive market and financial performance. Since it is hard to distinguish the service quality of different network operators in the country, lower prices remain the marketing strategy employed by these firms to attract and retain large subscribers to boost their financial performance and have a larger market share (Kollmann, 2000).

Perceived price fairness plays an important role in customer satisfaction and loyalty (Varki & Colgate, 2001). Price is often used by customers as an indicator of product-quality cues (Teas & Agarwal, 2000). And so, price is a subjective perception of a trade-off between what a customer gives up (sacrifice) and what the consumer received (utility, quality, benefits). In the GSM market, there are two price factors subscribers put into consideration before deciding to purchase a GSM product; these are the initial purchase price (SIM card purchase price), and usage or retaining charges (tariff).

Price has been observed as an important variable affecting the acceptance, usage, and even future patronage of GSM service (Ogwo & Igwe, 2012). Studies found that the lower the charges, the more customers consumed and the more customers will commit themselves to the telephone network (Woodruff, 1997; Kollman, 2000; Mohammed, 2008). Furthermore, the price is a major contributor to the purchase and behavioral usage of the customer. The above literature can come up with the following hypothesis:

*H2: There is a significant relationship between price and customer loyalty during the Covid-19 pandemic*

#### *Customer Service/ Care*

Customer service is a system of activities that comprises customer care systems, complaint processing, speed of complaint processing, ease of reporting complaints, and friendliness when reporting complaints (Kim, Park & Jeong, 2004). Nwakanma, *et al* (2018) opines that customer service includes all help and assistance network providers render/offer to the customer directly or indirectly before, during, and after purchase to provide an exciting customer experience with their products. Customer care is used in a wider sense and goes far beyond the traditional role of customer service and support; it encompasses all the functions along the entire service delivery value chain (Nwakanma *et al*, 2018). Companies leverage customer service to gain a competitive advantage by way of retaining existing

customers while winning new ones. In Nigeria, for example, service providers provide customer services through toll-free customer care lines, help desks, and websites. Lucas (2005) believes that by providing excellent customer service and dealing with dissatisfaction as soon as possible, companies can ensure that customers remain loyal and keep switching back. Given the evidence in the reviewed literature, the following hypothesis is proposed that:

*H3: There is a significant relationship between customer service/care and customer loyalty during the Covid-19 pandemic.*

#### *Corporate Image*

Corporate image is the perception of an organization that customers hold in their memories. Because it works as a filter through which a company's whole operation is perceived, a corporate image reflects a company's overall reputation and prestige (Kim & Lee, 2011). Zeithaml and Bitner (2008) defined image as the ability to influence customers' perception of the goods and services offered by the service provider. According to Nguyen and Leblanc (1998; 2001), corporate image is correlated to the physical and behavioral attributes of the organization, such as business name, variety of products or services, and the impression of quality communicated by each person communicating with the firm's clients. Thus, image will have an impact on customers' buying behavior. Aydin and Ozer (2005) opined that corporate image is one of the major determinants of customer loyalty and loyal customers may buy more and spread positive word-of-mouth regarding the service provider. The above literature can come up with the following hypothesis:

*H4: There is a significant relationship between corporate image and customer loyalty during the Covid-19 pandemic.*

#### *Switching Cost*

Switching costs can be defined as the technical, financial, or psychological factors which make it difficult or expensive for a customer to change the brand. Switching cost is the form of the cost involved in changing from one service provider to another. A switching cost can be

seen as a cost that deters customers from demanding a rival firm's brand (Aydin & Ozer, 2005). Switching cost is characterized by customer lock-in, where customers purchase the same brand repeatedly even when competing brands have a cheaper price (Shy, 2002; Aydin & Ozer, 2005). Prior studies showed that the degree of switching cost may influence customer loyalty in the service industry (Anderson & Fornell, 1994; Dick & Basu, 1994; Gremler & Brown, 1996). Switching cost is the significant antecedent for both business-to-business and business-to-consumer cases (Jones, Mothersbaugh, & Beatty, 2000). The above literature can come up with the following hypothesis:

*H5: There is a significant relationship between switching cost and customer loyalty during the Covid-19 pandemic*

### **Theoretical Framework**

This work is based on the theory of assimilation-contrast theory. The theory was propounded by Anderson (1973) in the context of post-exposure product performance built on Sherif and Hovland's (1961) ground-breaking research which advocates that judgment of objects can be affected by relative factors (Joan & Brian, 1993). The theory postulates that if performance is within a customer's range of approval, even though it may fall short of expectation, the discrepancy will be ignored, that is, assimilation will operate and the performance will be considered as satisfactory while if they fall within the customer's range of neutrality, there will be insignificant change. On the other hand, if performance falls within the latitude of rejection, the contrast will prevail and the difference will be overstated and the good or service will be deemed unacceptable (Oghojafor, Ladipo, Ighomereho, & Odunewu 2014).

The theory proposes that satisfaction is a function of the degree of the discrepancy between expected and perceived performance. When the expectations and the actual product performance do not match, the consumer will feel some degree of tension. To relieve this tension, the consumer will make adjustments either in expectations or in the perception of the product's actual performance. Consumers will

tend to assimilate or adjust differences in perceptions about product performance to bring it in line with previous expectations if the discrepancy is comparatively small. However, if the discrepancy is relatively high, the contrast will occur and consumers will magnify or exaggerate the discrepancy and the product would be rejected as totally unsatisfactory (Oghojafor *et al*, 2014).

### **Methodology**

This study adopted a cross-sectional survey conducted in Benin City, the capital of Edo State. Sample size of 266 respondents was used, determined by convenience sampling. The sample is made up of the subscribers of four (4) key GSM operators in Nigeria, including MTN, Globacom, Airtel and 9Mobile. The main research instrument was a structured questionnaire, divided into two sections. The first part which is section A captured respondents' selected demographic and socio-economic characteristics such as gender, age, highest educational qualification, occupation and income. The second part of the questionnaire which is section B contained items measuring customer loyalty. The questionnaire had six (6) constructs, that is, customer loyalty which is the dependent variable, service quality, price/tariff, prompt customer service/care, corporate image and switching cost which are the independent variables. Each of the construct had 3-5 interrelated questions on a 5-point Likert scales ranging from strongly agree (5), agree (4) not sure (3), disagree (2) to strongly disagree (1). Four of the dimensions of customer loyalty (service quality, price/tariff, prompt customer service/care and corporate image) used in this study were adapted from Adeleke and Aminu (2012) while the questions relating to switching cost were adapted from Pirc (2008). The questionnaire was personally administered by the researcher with the aid of Google Forms App. The entire questionnaire was returned and correctly filled, translating into 100 per cent response rate. The data collected were analyzed using SPSS computer software at the 0.05 level of significance. The hypotheses were tested with multiple regressions. The following mathematical model was tested:

$$CL = \alpha + \beta_1SEQ + \beta_2PRI + \beta_3PCS + \beta_4CIM + \beta_5SWC + \varepsilon \dots \dots \dots (1)$$

= Coefficients of the independent variables,  $\varepsilon$  = Error term

Where;

CL = Customer Loyalty, SEQ = Service Quality, PRI = Price, PCS = Prompt Customer Service, CIM = Corporate Image, SWC = Switching Cost,  $\alpha$  = intercept,  $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$

**Data Analysis and Results**

*Demographic Attributes of the Respondents*

The demographic attributes of the respondents are presented in Table 1 in terms of their gender, age, educational qualification, occupation, income, types of GSM networks, and number of years on the network.

**Table 1: Demographic Attributes of the Respondents**

Demographic Attributes	Classifications	Frequency	Percentage
<b>Gender</b>	Male	139	52.3
	Female	127	47.7
	<b>Total</b>	<b>266</b>	<b>100</b>
<b>Age</b>	18-24	199	74.8
	25-34	45	16.9
	35-44	14	5.3
	45-54	8	3.0
	<b>Total</b>	<b>266</b>	<b>100</b>
<b>Educational Qualification</b>	Primary	01	0.36
	Secondary (O'Level)	123	46.2
	B.SC, B.A., HND or Equivalent	121	45.5
	Post Graduate Degree	21	7.9
	<b>Total</b>	<b>266</b>	<b>100</b>
<b>Occupational Status</b>	Student	209	78.6
	Self Employed	23	8.6
	Civil/Public Servants	22	8.2
	Employee in Private Sector	10	3.8
	Others	2	0.7
	<b>Total</b>	<b>266</b>	<b>100</b>
<b>Income Per Month</b>	Below ₦50,000	194	72.9
	₦50,001- ₦100,000	32	12.0
	₦100,001- ₦150,000	17	6.4
	₦150,001- ₦200,000	5	1.9
	Above ₦200,000	18	6.8
	<b>Total</b>	<b>266</b>	<b>100</b>
<b>GSM network(s)</b>	MTN	137	51.5
	Glo	72	27.1
	Airtel	69	25.9
	9Mobile	18	6.7
	<b>Total</b>	<b>296</b>	<b>111.2</b>

<b>Number of years on the network</b>	2 – 4 years	113	42.5
	5 – 7 years	96	36.1
	8- 10 years	32	12.0
	11 years and above	25	9.4
<b>Total</b>		<b>266</b>	<b>100</b>

**Source:** Authors’ fieldwork (2021)

From the analysis, it shows that majority of the respondents used for this study are male (52.3%) as against 47.7% female. The result shows that there is no wide gap between the gender of the respondents. Out of the total number of 266 respondents, 90.8% of them were categorized as youth from age 35 years and below. This outcome is not surprising as the use of mobile phones is commonly associated with them. Out of the total number of 266 respondents that ticked their educational qualifications, secondary school, and B.Sc., B.A., HND, or Equivalent account for the substantial portion. These groups accounted for 91.7%. The implication of this is that the questionnaire administered for this study were filled by educated individuals who are assumed to have a better understanding of the concept of customer loyalty. For occupation, the majority of the respondents were students (78.6%); 23 (8.6%) were self-employed while 22 respondents were civil/public servants (8.2%). The monthly incomes of the majority of the respondents (72.9%) were below ₦50, 000 per month. 32 (12.0%) respondents earned between ₦50, 001- ₦100, 000 while only 18 respondents which are 6.8% earned above ₦ 200,000.

From the breakdown, MTN subscribers account for the largest proportion of 51.5%; followed by Globacom with 27.1%. This may be so because MTN is the pioneering firm in the mobile telecommunication industry in Nigeria. Airtel and 9 Mobile accounted for only 25.9 % and 6.7% respectively. As regards the number of years the respondents have been on their

respective networks, 113 of them representing 42.5% have been connected to their networks for a period of 2-4 years; 96 of them (36.1%) have been on their networks for between 5 and 7 years; while the remaining 32 respondents (12.0%) claim they have been hooked to their networks for a period ranging from 8 to 10 years. In all, the majority of the respondents have stayed long on the various networks to be able to respond to various issues raised on the questionnaire. This also indicates that a large proportion of the respondents are loyal to their respective networks.

**Descriptive Statistics of the Research Variables**

The overall mean score for the determinants is above average with a mean score of 3.708, implying that customer loyalty during the Covid-19 era is positively influenced by service quality, price, prompt customer service/care, corporate image, and switching cost. The mean value of (4.112) for price indicates that customer loyalty during the Covid-19 era is influenced by price. Also, the mean value of (3.881) for prompt customer service/care shows that customer loyalty during the Covid-19 era is positively influenced by prompt customer service/care. Similarly, the mean value of (3.697) for corporate image indicates that customer loyalty during the Covid-19 era is affected by the corporate image of the GSM network provider. Lastly, the mean value (3.282) for switching cost which is slightly above the average mean reveals that customer loyalty is fairly influenced by switching costs.

**Table 2: Descriptive Statistics of the Research Variables**

S/N	Parameters	Mean	Standard Deviation
	<b>Service Quality</b>		
1	The GSM network I subscribe to is wide and extensive.	4.192	0.775
2	The clarity of my network is high.	3.748	0.940
3	The frequency of call failure on my network is substantial.	3.620	1.069
4	My service provider's range of value-added services (VASs) such as GPRS, free midnight calls, news, and so forth are important to me.	3.451	0.983
5	My service provider brings out new technology regularly.	3.184	1.172
	<b>Overall Mean for Service Quality</b>	<b>3.639</b>	<b>0.988</b>
	<b>Price</b>		
6	The price/tariff I pay is commensurate with the quality of services I get on my network.	3.993	1.085
7	I am not willing to pay higher price/tariff on my network.	4.056	1.002
8	A higher price/tariff will make me switch to a competitor.	4.286	0.895
	<b>Overall Mean for Price</b>	<b>4.112</b>	<b>0.994</b>
	<b>Prompt Customer Service/Care</b>		
9	I consider prompt and quality customer service as one of the most important considerations in the assessment of a network.	4.165	0.980
10	The long delay I experience each time I make call to my network's customer care to make enquiry or lodge complaints does not make me happy	3.902	0.939
11	My service provider employees are polite and friendly in handling my grievances and complaints.	3.693	0.859
12	My network's reputation for good service is not cheering, and has been a source of concern to me.	3.485	1.117
	<b>Overall Mean for Customer Service/Care</b>	<b>3.811</b>	<b>0.974</b>
	<b>Corporate Image</b>		
13	My company's name, the different kinds of products provided, service quality, and so on project it favorably in my mind.	3.752	0.986
14	Promptness in reply to my call and in complaints handling by customer care employees projects the service provider positively in my mind.	3.846	0.988
15	My network provides varieties of promotion such as advertising, sales promotion, direct marketing, and road show.	3.846	0.949
16	A reasonable and satisfactory price by my service provider promotes its image positively.	3.346	1.150
	<b>Overall Mean for Corporate Image</b>	<b>3.697</b>	<b>1.018</b>
	<b>Switching Cost</b>		
17	Changing my mobile service provider would cost me money.	3.034	1.090
18	If I decide to change to another service provider, my costs will increase.	3.226	1.157
19	Changing my mobile service provider would have important financial implication for me.	3.587	1.103
	<b>Overall Mean for Switching Cost</b>	<b>3.282</b>	<b>1.116</b>
	<b>Customer Loyalty</b>		

S/N	Parameters	Mean	Standard Deviation
20	My loyalty to my service provider is because I am pleased with their quality service.	3.639	1.063
21	I am loyal to my service provider and see it as first choice of GSM firm.	3.402	1.057
22	My loyalty to my service provider is because of their call quality.	3.372	1.078
23	The value-added services offered by my service provider makes me loyal.	3.500	1.096
	<b>Overall Mean for Customer Loyalty</b>	<b>3.478</b>	<b>1.074</b>
	<b>Grand Mean and Standard Deviation for service quality, price, prompt customer service/care, corporate image and switching cost</b>	<b>3.708</b>	<b>1.035</b>

Source: Authors’ Fieldwork (2021).

### Correlation Analysis

Pearson correlation coefficients were conducted on the data for the dependent and independent variables in the study. The result is shown in the table below.

Variables		Service Quality	Price	Prompt Customer Service	Corporate Image	Switching cost	Loyalty
Service Quality	Pearson Correlation	1					
	Sig. (2-tailed)						
	N	266					
Price	Pearson Correlation	0.070	1				
	Sig. (2-tailed)	0.258					
	N	266	266				
Prompt Customer Service	Pearson Correlation	0.298*	0.216*	1			
	Sig. (2-tailed)	0.000	0.000				
	N	266	266	266			
Corporate Image	Pearson Correlation	0.470*	0.087	0.410**	1		
	Sig. (2-tailed)	0.000	0.157	0.000			
	N	266	266	266	266		
Switching Cost	Pearson Correlation	0.389*	-0.032	0.341**	0.544**	1	
	Sig. (2-tailed)	0.000	0.603	0.000	0.000		
	N	266	266	266	266	266	
Loyalty	Pearson Correlation	0.519*	0.072	0.334**	0.580**	0.594**	1
	Sig. (2-tailed)	0.000	0.239	0.000	0.000	0.000	
	N	266	266	266	266	266	266

\*\* . Correlation is significant at the 0.01 level (2-tailed).

Source: Authors’ Fieldwork (2021).

Table 3 shows that customer loyalty is positively and significantly related to service quality ( $r = 0.519, p < 0.05$ ), prompt customer service ( $r = 0.334, p < 0.05$ ), corporate image ( $r = 0.580, p < 0.05$ ) and switching cost ( $r = 0.519, p < 0.05$ ). However, customer loyalty is not significantly related to price ( $r = 0.072, p > 0.05$ ). Bryman and Cramer (1997) stipulated that Pearson's correlation coefficient ( $r$ ) should not be more than 0.80; otherwise, the independent variables that show a relationship of more than 0.80 may be suspected and therefore guilty of multi-collinearity. The

results in table 3 show that none of the correlation coefficients is up to 0.80. This, therefore, means that there is no form of multi-collinearity in the model.

**Model Estimation and Interpretation**

The specific objective of this study is to ascertain the influence of service quality, price, prompt customer service/care corporate image and switching cost on customer loyalty during the Covid-19 era. The regression result is presented in Table 4 to Table 6.

**Table 4: Model Summary**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.706 <sup>a</sup>	0.498	0.489	0.609	1.825

a. Predictor: (Constant), Service quality, price, Prompt customer service, Corporate image, Switching cost

Source: Authors' fieldwork (2021)

The value of  $R^2$  which is 0.498 indicates that the independent variables (service quality, price, prompt customer service/care, corporate image, and switching cost) together explain only 49.8 % of the systematic variation in the

dependent variable (customer loyalty). The Durbin Watson statistic of 1.825 reveals the absence of first order serial correlation in the model.

**Table 5: Analysis of Variance for the Model**

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	95.807	5	19.161	51.623	.000 <sup>a</sup>
	Residual	96.506	260	.371		
	Total	192.313	265			

a. Dependent variable: Customer loyalty

b. Predictor: (Constant), Service quality, price, Prompt customer service, Corporate image, Switching cost

Source: Authors' fieldwork (2021)

The F statistic of 51.623 is significant at  $p < 0.05$ . This means that there is a statistically significant relationship between the dependent variable (customer loyalty) and the independent

variables (service quality, price, prompt customer service/care, corporate image, and switching cost) as a group.

**Table 6: Coefficients of the Model**

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-0.404	0.349		-1.159	0.248		
Service quality	0.315	0.064	0.251	4.936	0.000	0.745	1.343
Price	0.047	0.056	0.038	0.833	0.405	0.937	1.068
Prompt customer service	0.043	0.081	0.027	0.531	0.596	0.767	1.304
Corporate image	0.323	0.071	0.259	4.525	0.000	0.589	1.699
Switching cost	0.361	0.056	0.347	6.404	0.000	0.657	1.521

a. Dependent Variable: Customer Loyalty

Source: Authors' fieldwork (2021)

The result in Table 6 shows there is a significant relationship between service quality, corporate image, switching cost, and customer loyalty during the Covid-19 pandemic. The details of the relationship of ( $\beta = 0.315$ ,  $t = 4.936$ ,  $p = 0.000$ ), ( $\beta = 0.323$ ,  $t = 4.525$ ,  $p = 0.000$ ) and ( $\beta = 0.361$ ,  $t = 6.404$ ,  $p = 0.000$ ) for service quality, corporate image and switching cost respectively show that service quality, corporate image and switching cost have significant relationship with customer loyalty. On the other hand, there is no significant relationship between price and prompt customer service/care and customer loyalty during the Covid-19 pandemic. The details for price which are ( $\beta = 0.047$ ,  $t = 0.833$ ,  $p = 0.405$ ) and for prompt customer service ( $\beta = 0.043$ ,  $t = 0.531$ ,  $p = 0.596$ ) show that price and prompt customer service are not significant at the 0.05 level of significant.

To conclude that there is no multicollinearity in any set of data, the value of tolerance must be considered being over 0.10 while the variance inflation factor (VIF) should be below 5. The results in table 6 show that the value of tolerance ranged from 0.589 to 0.937, evidence of substantial scores above the minimum threshold. Besides, the variance inflation factors (VIF), which ranged from 1.068 to 1.699 were way below the maximum limit of acceptability.

**Conclusion and Policy Implications**

This study surveys the determinants of customer loyalty in the Nigerian telecommunication industry during the Covid-

19 pandemic. Five determinants (service quality, price, prompt customer service/care, corporate image, and switching cost) were identified as possible constructs that can influence customer loyalty during the Covid-19 pandemic. The result shows that service quality (driven by extensive network coverage, clarity of network, value-added services, and innovative technology) can make customers loyal during the Covid-19 pandemic. The study also revealed that a good corporate image of GSM operators can make customers loyal during the Covid-19 era. Similarly, switching cost, that is, the high cost of changing mobile service providers can also make a customer loyal to a particular service provider. Finally, the findings reveal that price and prompt customer service/care do not result in customer loyalty in the Nigerian telecommunication industry during the Covid-19 period. This is because the majority of the subscribers believe the price, they are paying currently is not proportionate with service quality. The long delay subscribers experience each time they make a call to their network's customer care to make inquiries or lodge complaints does not make them happy.

The Nigerian telecommunications industry is in the early stages of an advanced analytics revolution. Continuous upgrading infrastructure will go a long way to improving the performance of service. Network operators that can leap to a more digital, analytics-driven business model will be in a better position to

retain and maximize their customer relationships and their productivity and performance. Still, telecoms providers can expect to have better results in terms of customer retention and in turn, the performance of service provision, if they also manage to establish a trustful relationship with their customers. Making this happen, however, will require new ways of thinking, new types of leadership, and a cultural change. Finally, the telecommunication industry needs to take into cognizance the factors influencing customer loyalty during the Covid-19 pandemic and emphasize them in their marketing policy.

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