

**EFFECT OF TELECOMMUNICATION SERVICES ON CUSTOMER  
SATISFACTION IN ABUJA METROPOLIS**

**OWULO, Joshua Odey**

+23480383834048

*bishopjoshyjosh@yahoo.co.uk, jo.owulo.unizik.edu.ng*

***Abstract***

*This study was designed to examine the effect of mobile telecommunication service quality on customer satisfaction with particular reference to AMAC, instrument elements of service quality, customer loyalty, promotion, service experience and empathy of telecoms service providers in the Abuja Metropolis because in spite of the appreciable growth and expansion recorded in the telecom industry, there are still customer complaints about the telecoms service quality. Primary data was used for the study, obtained through the administration of structured questionnaires. The population of the study was customers of telecom services in Abuja Metropolis. Multiple regression method were used to analyse the data. The result of the analysis revealed that telecoms service reliability, responsiveness and reliability affects customer satisfaction significantly, while there is no significant effect of service quality and customer loyalty telecommunication services and customer satisfaction in Abuja, Nigeria. The study therefore recommended that as far as Abuja metropolis is concerned, the telecom service providers can maintain their strategies on service quality and customer loyalty since the effect is insignificant, but they should ensure continuous availability of promotion, service experience and empathy in rendering their service, and also make efforts to continually improve on them since the effect for those elements were found by the study to be significant and positive.*

***Keywords:*** Telecommunication, Service Quality, Customer Loyalty, Promotion, Empathy.

## **INTRODUCTION**

The importance of service sector has been increased in the recent years with the increase of the customer in the telecommunication sector and its role in the development of the economic sector in Nigeria. In marketing term, customer satisfaction is described as a measure on how services or product supplied by the organizations meet customer's expectation. The awareness of customers in services industries about quality has been increased. The excellent service quality increase productivity, market shares returns on investment and customer satisfaction. Nowadays, the quality has gained more importance through the customer satisfaction. 80 percent of companies believe they offer superior customer satisfaction, but only 8 percent of customers would rate the customer service they receive as superior; most companies aren't providing the level of customer satisfaction their clients want. Customer experience is the sum of your customer's experience with your brand across all touch point on the customer journey, from initial discovery through conversion.

### **Mobile Telecommunications Service**

Mobile Telecommunication refers to the exchange of information, ideas and thoughts through the medium of a mobile phone, telephone or wireless network. According to the World International Property Organization, a mobile communications system/network refers generally to any telecommunications system which enables wireless communication when users are moving within the service area of the system. A typical mobile communications system is a Public Land Mobile Network (PLMN). Until the invention of modern technology, the use of semaphore, flags, heliograph, relay runners; riders and criers, smoke signals, drum, and light signals; message-carrying pigeons, and even the postal system were the traditional long-distance communication media (Nigel, 2004).

Today there are many different types and kinds of mobile phones that are used with supporting network for communication. These mobiles have different features and powerful capabilities. Apart from the basic use of making and receiving calls and messages; some can be used to play music, video, games, store considerable amount of

personal data, access banking services with internet capabilities (e-mails, e-order/procurement etc.), among other uses. Mobile communications systems have been developed because of the increasing need to free users to move away from fixed telephone terminals without impairing availability of users. Mobile technology has rapidly developed from first generation (1G), second generation (2G), third generation (3G) to beyond third generation (3.5G, 4G and 5G) mobile technology that uses digital wireless technology that supports faster display of multimedia and global roaming (Nigel, 2014). Mobile communication network providers, in delivering services to customers, operate in an environment that involves purposeful relationships and interactions between several actors in many activities and with different resources. Some of the players in mobile telecom industry providing services to the customers at their various locations are: the mobile operator who provides the location positioning infrastructure that tells where the customer is; the content provider that delivers the information; the supplier that combines the information with the location information and makes it location relevant; and the platforms through which the customers can access the services. Therefore it appears that any mobile telecom network needs to have several key players along its value chain in delivering services to its customers. Mobile telecommunication plays a major role in today's information technology-driven world of business.

It is a significant source of revenue not only for its business operators but also to governments through taxes paid by income earners in the mobile telecom industry. It is a cheap means of communication and therefore cost-effective since it reduces the cost of travel. It enhances the convenience of instantaneous communication. Mobile phones were introduced so we could communicate when "on the move" and the capabilities have now expanded beyond their initial function for talk: you can now use mobile phones to access/receive a range of information wherever you are. A mobile phone allows you to be accessible at all times, wherever you are. It can help improve communication between staff and customers, particularly business to business customers that may involve travelling (AdjeiBoadi & Gause, 2006).

Telecommunication facilities in Nigeria were first established in 1886 by the colonial administration. Telecommunications began with the first trunk telephone service between two towns in 1923. At independence in 1960, with a population of roughly 40 million people, the country only had about 18,724 phone lines for use. Between 1960 and 1985, the telecommunication sector consisted of the Department of Posts and Telecommunications (P&T) in charge of the internal network and a limited liability company, the Nigerian External Telecommunication (NET) Limited, responsible for the external telecommunications services. NET provided the gateway to the outside world. The installed switching capacity at the end of 1985 was about 200,000 lines as against the planned target of about 460,000. All the exchanges were analogue. Telephone penetration remained poor equalling one telephone line to 440 inhabitants, well below the target of 1 telephone line to 100 inhabitants recommended by ITU for developing countries. At this time, the telephone system was unreliable, congested, expensive and customer unfriendly. In 1992, the government established an independent regulator – Nigeria Communications Commission (NCC). NCC was mandated to establish an environment that will facilitate the participation of the private sector to improve the extremely poor existing infrastructure. This has not been very successful, as telecommunications operates within the economic parameters that were affected by existing socioeconomic climate. However, the trends in Nigerian telecoms between 1992 and 1999 were said to represent partial liberation as activities of the regulatory body were impeded by the political system of military rule and policy inconsistencies. NITEL's failure necessitated the need for a full liberalization system that will eradicate misuse of NITEL's monopoly powers so as to improve services and increase efficiency in the sector through private sector participation.

### **General Telecom Services**

Voice Call, Data Services, Customer Service Centre, Video Call. Short Message Service (SMS), Multimedia Messaging Service (MMS), Roaming Service and Short Number or Common Short Codes.

### **Statement of the Problem**

Over the years, there has been massive public outcry over deteriorating Quality of calls and services in Abuja, Nigeria. Telecommunication operators in Nigeria has engaged with her teaming customers for quality services to salvage the nation which has ravaged with drop calls and other phone calls related complaints.

The Nigerian Communication Commission (NCC) who is the regulatory body saddled with the responsibility to supervise the industry and her players, recently lamented that in spite of the appreciable growth and expansion recorded in the industry, “the quality of service is still poor”. She has resolved to slam huge fines on the operators for poor quality services. The line least resistance, it has been observed that customers’ dissatisfaction leads to customers switching and ultimately reduction in sales volume and consequently profitability of the companies. Therefore, the gap created by this information necessitates a further research study that determines the effect of telecommunication service quality on customer satisfaction in Abuja, Nigeria. It is in view of the above development and against this background therefore, that the study seeks to find plausible answers to the imposing reseach questions stated below.

- Is there any relationship between telecommunication services and customer satisfaction in Abuja Metropolis?
- To what extend is the effect of telecommunication customer Loyalty on customer satisfaction in Abuja Metropolis?
- To what extend is the effect of telecommunication promotion on customer satisfaction in Abuja Metropolis?
- To what extend is the effect of telecommunication service experience customer satisfaction in Abuja Metropolis?
- To what extend is the effect of telecommunication empathy on customer satisfaction in Abuja Metropolis?

## LITERATURE REVIEW

### **Service Quality**

Service Quality as defined by Philip Kotler (1997) is an action or an activity which can be offered by a party to another party, which is basically intangible and cannot affect any ownership. Service may be related to tangible product or intangible product on the other hand, Zeithaml and Bitner (2003) posit that, Service Quality is a focused evaluation that reflects the customer's perception of specific dimensions of service namely reliability, responsiveness, Assurance, empathy, tangibles; based on the assessment of Service quality provided to the customers, business operators are able to identify problem quickly, improve their service and better assesses client expectation.

Oliver (1993) reported that service quality is a casual antecedent of customer satisfaction, due to the fact that service quality is viewed at transactional level and satisfaction is viewed to be an attitude. Dabholkar (1996) and Zeithaml (1996) reported that the service quality divisions are related to overall service quality and or customer satisfaction. Fornell (1996) expressed that satisfaction is a consequence of service quality. Ahmad (2010) argued that there is causal relationship between service quality and satisfaction, and that the perceptions of service quality affect the feelings of satisfaction.

**Customer Service Experience.** Customer service experience is the sentiment associated with a company's ability to provide positive experiences to their customers. Services range from one-on-one interactions where a support agent resolves a customer issue, to exchanges with the brand on a more public scale. The definition of customer service experience must go above the archaic understanding of siloed support. What is considered customer service experience today is much more comprehensive than it was years ago. We now know that 55% of customers sight a reputation for great customer service as a reason why they choose one company over another.

This reputation doesn't live solely within the inbox or on a phone call. People experience customer service more publicly than ever. A good business strategy capitalizes on this

free publicity and ensures the sentiment is positive. Customer satisfaction assessment captures service quality and in this study, the SERVQUAL factors used to measure service quality of mobile telecoms will be used to assess customer satisfaction. This is because SERVQUAL helps to identify clearly the impact of quality dimensions on the development of customer perceptions.

**Customer Loyalty.** Kim et al (2012) stated that customer satisfaction has measurable impact on customer loyalty in that when satisfaction reaches a certain level; on the high side, loyalty increases dramatically; at the same time, when satisfaction falls to a certain point, loyalty reduces equally dramatically. Yi (1990) expressed that the impact of customer satisfaction on customer loyalty by stating that “*customer satisfaction influences purchase intentions as well as post-purchase attitude*”. In other word, satisfaction is related to behavioural loyalty, which includes continuing purchases from the same company, word of mouth recommendation, and increased scope of relationship. Hallowell (1996) confirmed the link between customer loyalty (in the context of behavioural loyalty) and customer satisfaction. Oliver (1999) stated that the relationship between satisfaction and loyalty is that satisfaction is transformed into loyalty with the assistance of a myriad of other factors. However, this relationship is complex and asymmetric. High levels of satisfaction lead to high levels of attitudinal loyalty. Attitudinal loyalty involves different feelings, which create a customer’s overall attachment to a product, service, or company (Lovelock, Patterson & Walker, 2001). Gerpottet al (2001) in their study of the German mobile telecommunication found that customer satisfaction is positively related to customer loyalty, and both factors are important paraments in the mobile telecommunications industry.

**Customer Experience** Research has is that customer experience is the experience that a customer has with a brand. A customer might have a pre-purchase question about a specific product. They might have a question about payment or billing, or need to return an item after buying. These are all examples of customer service. Keeping those customers happy means being responsive to their needs and wants. A good customer service experience can turn a one-time customer into a lifelong repeat customer.

People like to share their good experiences. Excellent customer service can turn into positive word of mouth

Works have shown that there is positive relationship between customer satisfaction and customer retention; customer satisfaction has a direct effect on customer retention (Rust 2000); customer satisfaction is positively related to customer retention. To retain a customer, it is necessary to satisfy him. Satisfied customer is more likely to return and stay with a company than a dissatisfied customer who can decide to go elsewhere; satisfaction leads to retention and the retention is not simply because of habit, indifference or inertia; customer retention is central to the development of business relationships, and these relationships depend on satisfaction (Eriksson & Vaghult, 2000); customer satisfaction is an antecedent of customer retention (Athanasopoulos, 2000); customer satisfaction is a central determinant of customer retention; customer satisfaction is positively related to customer retention and the effect varies by customer size and the customer's current level of satisfaction.

### **Empathy.**

(Meiet al., 1999) Empathy entails understanding the company's customer's specific needs and providing those needs. It is caring and personalized attention the organization gives to its customers. Caring and individualized attention provided by the service firm Empathy includes approachability, sense of security, and the effort to understand customer's needs (Parasuraman et al., 1988) the ease of approachability and contact. For example, this could involve convenient opening hours, getting through on the telephone and convenient location, the politeness, respect, consideration and friendliness shown to the customers by the contact personnel the freedom from danger, risk and doubt. It involves physical safety, financial security and confidentiality. Keeping customers informed about the service in a language that they can understand and listening to the customers. For example, in the case of an airline giving regular updates, this could include detailed and accurate information whenever a delay in service occurs. (Hossain, 2012; Al Khattab & Aldehayyat, 2011).

### **Concept of Customer Satisfaction**

Customer satisfaction remains a key discourse among service marketing literature. Jani and Heesup (2011) defined satisfaction as an emotional state resulting from a customer's interactions with a service provider over time. It is a measure of how products and services supplied by a company meet or surpass customer expectation. Customer satisfaction is defined as "The number of customers or percentage of total customers, whose reported experience with a firm, its products, or its services (ratings) exceeds specified satisfaction goals.

In quality management and marketing literature, customer satisfaction is often viewed as a function of transaction-specific satisfaction and multiple transaction-specific satisfactions (Fornel 1992, Rust & Oliver 1994). Under this view point, for example, customer satisfaction is defined based on several perspectives such as a decision made by customers about the service quality, product quality and price (Parasuraman et al. 1991, Zeithaml et al. 1996), an inner view resulted from customer's own experience from the service, an output of customers' comparison between expected performance and actual performance (Churchill & Surprenant 1982, Rosen, Surprenant & Rosen 1998), a series of customer post experience decisions with a product or service over time (Clemes, Gan & Ren 2011, Fournier & Mick 1999) and a difference between customers' expectations and experience performance after using the particular services (Kotler & Clarke 1985, Ramayah, Osman & Rahbar 2010).

In examining the drivers of customer satisfaction Shankar, Smith and Rangaswamy (2002) identified two types of customer satisfaction, namely, service encounter satisfaction and overall customer satisfaction. Whereas overall customer satisfaction is relationship-specific, service encounter satisfaction is transaction specific. This study will examine customer satisfaction and how it affects the loyalty of telecom services users in Nigeria. Overall satisfaction refers to the cumulative effect of a set of transactions or discrete service encounters with the service provider over a period of time. Rust and Oliver (1994) and Taylor and Baker (1994) identified several factors that precede customer satisfaction and suggested that these factors strongly influence the extent of

customer satisfaction. Some of these antecedents include: Clear Understanding of Customer Needs and Expectations (Basic needs, Excitement needs and Expected needs) and perceived value.

However in the telecom industry, previous research studies have suggested four factors, which are key drivers of the customer value of cellular services, which some are embedded in the above, while some are alien to them . These include: network quality, price, customer care, and personal benefits (Booz, Allen & Hamilton, 1995, Danaher & Rust, 1996; Bolton, 1998; Gerpott et al, 2001).

Customer satisfaction, therefore, is an important concept in marketing research. Prior research tells us that customer satisfaction has a positive effect on loyalty. Wong (2010) proved consumer satisfaction has got a positive effect on consumer retention.

Several studies have shown that it costs about five times to gain a new customer as it does to keep an existing customer and this result into more interest in customer relationships. Thus, several companies are adopting customer satisfaction as their operational goal with a carefully designed framework. Hill and Alexander (2000) wrote in their book that companies now have big investment in database marketing, relationship management and customer planning to move closer to their customers. Jones and Sasser (1995) opined that achieving customer satisfaction is the main goal for most service firms today. However, increasing customer satisfaction has been shown to directly affect companies' market share, which leads to improved profits, positive recommendation, lower marketing expenditures and greatly impact the corporate image and survival (Pizam & Ellis, 1999).

### **Empirical Review**

Over two decades ago the Nigerian government successfully liberalized its telecommunications sector and brought into existence GSM services. Over these years, a lot of studies have been conducted on GSM communication. Oyeniya and Abiodun (2010) examined switching cost and customer loyalty in the Nigerian mobile phone

market. The study revealed that customer satisfaction positively affects customer retention and that switching cost affects significantly the level of customer retention.

The RSQS instrument was selected as the most reliable device to measure the difference-score conceptualization. It was used to evaluate service gaps between expectation and perception of service quality. Modifications were made on the RSQS instrument to make it specific to the Retail Sector. The literature review was gathered enough from various sources and reflecting both Indian and foreign context. A number of hypotheses were proposed in the thesis and examined using Structural Equation Modeling. The hypotheses were tested with the software AMOS 21 and SPSS 21 to fulfill the research objectives. The data were examined using confirmatory factor analysis to confirm RSQS instrument reliability and validity of the retail industry performance and service quality dimensions. The resultant CFA model value showed good psychometric properties. The research is designed to address the literature gaps. Path analysis, multiple regression, correlation, Paired “ test, Chi-square test, One way ANOVA and descriptive statistics were applied to interpret the data. Structural Equation Model (SEM) was applied to study the relationship and impact between service quality, customer satisfaction and behavioral intention. The findings of the study revealed that the customer’s perception (performance) is lower than expectation of the service quality rendered by the organized retail stores. Responsiveness and Assurance SQ dimensions were the most important dimensions in service quality scored less SQ gap.

Horia (2006) conducted a research on the Determinants of Customer satisfaction and Service Quality the case of Romanian public Services. The study portrays customer satisfaction and service quality as a multidimensional construct and investigated the link between customer satisfaction determinants and service quality determinants. Based on arguments that customer satisfaction should be operationalized along the same determinants/factors and dimensions (and the corresponding items) on which service quality is operationalized, the results of study indicated that the two constructs were indeed independent but closely related, implying that an increase in one is likely to lead to an increase in another.

Temba (2013) carried out a research on The Assessment of Service Quality and Customer Satisfaction using Servqual Model: A case study of Tanzania Telecommunications company Limited (Ttcl). Service quality and customer satisfaction are very important concepts that companies must understand if they are to grow and remain competitive in the business environment. It is very important for companies to know how to measure these constructs from the customers' perspective so as to understand their needs and satisfy them. Service quality is considered to be very critical to any modern business because it contributes higher customer satisfaction, profitability, reduced cost, improved customer loyalty and retention. The main purpose of the study was to assess customer satisfaction and service quality using SERVQUAL model within TTCL working environment. Other purposes included how customers perceive service quality; identify service quality dimensions that contribute to higher satisfaction, factors hindering customer satisfaction and what should be done to improve customer satisfaction for TTCL customers. A questionnaire was designed and distributed to respondents using a convenience sampling technique for TTCL customers. The analysis carried out found that, the overall service quality perceived by customers was not satisfactory; means customers' expectations exceeded perceptions. Also analysis revealed that TTCL Customer Care, Network Coverage, Voucher availability, handsets flexibility and air time charges were the critical factors that hinder satisfaction. As far as theory is concerned findings reveals that SERVQUAL model was not the best tool to use in measuring service quality for TTCL because the dimensions were negative gap. The study contributed to the already existing studies examining service quality within TTCL using SERVQUAL model. It also provided empirical results that guided other telecommunications companies on the corrective measures that lead to respective company significant growth.

The impact of five service quality dimensions on customer satisfaction was significant in all factors of service quality. More specifically, customers indicated high satisfaction with the five dimensions of service quality examined in the study (service quality, customer loyalty, promotion, service experience and empathy).

In this regard it was interesting to note that the dimension of Service experience and empathy had the lowest mean ratings; however, the correlation between Customer loyalty and customer satisfaction was the highest, which implies that improvement in employees Customer loyalty is an important issue that required attention. The research also concluded that service quality can be used to predict customer satisfaction. 79.2% of the variation in customer's satisfaction was explained by the five service dimensions studied here, the remaining 20.8 % is explained by other factors that were not examined in the study. For example, customer's satisfaction might be influenced by such factors as price, and service variety. It might be desirable for future studies to include these (and other) factors.

### **Theoretical Framework**

Theories are formulated to explain, predict and help in understanding phenomenon and in many cases to challenge and extend existing knowledge within the limits of the critical bonding assumptions, (David 2009). Different authors have come up with theories on service quality. The theories that will be highlighted here to give some kind of backing to the study on ground are:

### **Technical and Functional Quality Model**

Gronroos (1984) who propounded the theory posits that in order for a firm to compete successfully it must have an understanding of consumer perception of the quality and the way service quality is influenced. Managing perceived service quality means that the firm has to match the expected service and perceived service to each other so that consumer satisfaction is achieved. The author identified three components of service quality, namely: technical quality; functional quality; and image.

- (1) Technical quality is the quality of what consumer actually receives as a result of his/her interaction with the service firm and is important to him/her and to his/her evaluation of the quality of service.
- (2) Functional quality is how he/she gets the technical outcome. This is important to him and to his/her views of service he/she has received.

- (3) Image is very important to service firms and this can be expected to built up mainly by technical and functional quality of service including the other factors (tradition, ideology, word of mouth, pricing and public relations).

### **Assimilation-Contrast Theory**

The theory however underpinning the study is assimilation-contrast theory. In a highly competitive marketing environment like the telecom industry in Nigeria, an understanding of assimilation and contrast effects is of substantial interest. The theory was introduced by Anderson (1973) in the context of post-exposure product performance based on Sherif and Hovland's (1961) seminal research which suggest that judgements of objects can be affected by contextual factors. For the purpose of this study, the contextual factors that can affect consumers' judgements of telecom services include the core product, pricing system and customer service. The theory states that if performance is within a customer's latitude (range) of acceptance, even though it may fall short of expectation, the discrepancy will be disregarded, that is, assimilation will operate and the performance will be deemed as acceptable whereas if they fall within the customer's latitude of neutrality, there will be minimal change.

### **METHODOLOGY**

The study adopted the survey design, using questionnaire to collect required data. Specifically, close ended (structured) questionnaire were used to collect primary data, in other to streamline responses for easy analysis. A survey design was appropriate because the research objectives included the ascertainment of the opinion of a population by testing a sample of that population after which inference can be drawn and generalisation of the results can be made to the entire population.

The population sample of the study consists of subscribers of telecom services in FCT Abuja Metropolis, Nigeria. According NCC (2017), the market total subscribed customers for the GSM Telecom service providers in Abuja as at the fourth quarter of 2017 is 5,909,633 and is distributed among MTN, Airtel, Glo and 9mobile as follows:

**Table 1: Abuja subscriber population**

Service Provider	No of Active Subscribers	Market share (%)
MTN	1,735,422	30
AIRTEL	1,208,874	20
GLO	1,937,331	33
9MOBILE	1,028,006	17
<b>TOTAL</b>	<b>5,909,633</b>	<b>100</b>

*Source: Field Survey, 2020*

The sampling techniques used in this study were purposive and simple random sampling. The purposive sampling was adopted because the intension was to gain an insight into the customer service phenomenon, hence the need to choose personnel who were well versed in the industry. Simple random sampling was also important to the study, since the study was intended to ensure some randomness and representativeness in the sample. The selection of the respondents for the study was guided by sampling procedure: the process involving sampling frame identification and the determination of relevant sample size. This method of sampling therefore ensured that all respondents have equal opportunities for selection.

The sample size was attained using the Taro Yamane formula for sample size attainment from a finite population:

$$n = \frac{N}{1 + N (e)^2}$$

Where:

n = Sample size

N = Population size (5,909,633)

e = Significance level (9% or 0.09)

Therefore,

$$n = \frac{N}{1 + N (e)^2}$$

$$n = \frac{5,909,633}{1 + 5,909,633 (0.05)^2}$$

$$n = \frac{5,909,633}{1 + 5,909,633 (0.0025)}$$

$$n = \frac{5,909,633}{1 + 14,774.0825}$$

$$n = \frac{5,909,633}{14,775.0825}$$

$$n = 399.9 \text{ or } 400$$

The sample of one four hundred (400) respondents has hence been drawn and purposively distributed as follows amongst Asokoro, Wuse, Garki, Karshi, Maitama, and Central Business District:

**Table 2: Population and stratified sample size**

<b>Respondents</b>	<b>Population</b>	<b>Sample size</b>	<b>Percentage (%)</b>
Asokoro	768,252	52	13
Wuse	1,122,830	76	19
Garki	886,445	60	15
Karshi	945,541	64	16
Maitama	1,004,638	68	17
Central Business District	1,181,927	80	20
<b>TOTAL</b>	<b>5,909,633</b>	<b>400</b>	<b>100</b>

*Source: Field survey 2020*

The study made an extensive use of both primary and secondary sources of information from the telecom service providers' customers. The primary sources of data will include information that were gathered from the questionnaires that were administered to the respondents and structured interviews that was conducted with the top management members of the company at the branch.

### Model Specification

The mathematical model for simple regression analysis is given as:  $Y = a+bx$  Where  $X$  is performance of telecommunication services (the independent variable), and  $Y$  is customer satisfaction (the dependent variable). Both  $a$  and  $b$  are the regression coefficients known as the intercept and slope respectively. The model for the study is as follows:

$$CSTS = f(SQ, CL, PR, SE, \& EM)$$
$$CSTS_i = \beta_0 + \beta_1SQ_i + \beta_2CL_i + \beta_3PR_i + \beta_4SE_i + \beta_5EM_i + \mu_i$$

Where:

**CSTS** = Customer satisfaction with Telecom Service

**SQ** = Service quality

**CL** = Customer Loyalty

**PR** = Promotion

**SE** = Service Experience

**EM** = Empathy

$\beta_0$  = Constant/Intercepts

$\beta_1, \beta_2, \beta_3, \beta_4,$  and  $\beta_5$  = Parameters of determination

$\mu$  = Stochastic Variable (Error term)

$i$  = Signifying that the data is cross sectional for individual observations

**Table IV. Correlation Analysis of Independent Variables**

	<b>SQ</b>	<b>CL</b>	<b>PR</b>	<b>SE</b>	<b>EM</b>
<b>SQ</b>	1				
<b>CL</b>	0.3772	1			
<b>PR</b>	0.4101	0.3513	1		
<b>SE</b>	-0.3161	-0.2556	-0.4251	1	
<b>EM</b>	0.4223	0.3621	0.2217	0.4113	1

*Source: Researcher's Computation, 2020*

Correlation table shows a positive relationship between Service Quality and Customer Loyalty with a coefficient of 0.38; Service Quality and Service Experience with a coefficient of 0.41; Customer Loyalty and Service Experience with a coefficient of 0.35; Service Experience and Empathy with 0.42; Customer Loyalty and Empathy with 0.36; Service Experience and Empathy with a coefficient of 0.41; and between Promotion and Empathy with 0.22. In contrast, the table shows negative relationships between Service Quality and Service Experience with a coefficient of -0.32; Service Quality and Service Experience with a coefficient of -0.26 and a negative relationship also between Promotion and Service Experience with a coefficient of -0.43.

However, the correlation results indicate that there is no likelihood of multicollinearity problem associated with the data of the study as none of the correlation coefficients between the independent variables displayed any high relationships close to 1, meaning that all the variables are not repetitive in nature or duplicates of each other.

The statistical decision rule of p- value states that the Null hypothesis should be accepted if P- value is greater than alpha value (i.e. level of significant which is 0.05) otherwise it should be rejected while the Alternative hypothesis is adopted.

From the table above, it can be observed that the regression coefficient for Telecom Service Promotion is 0.643 with a P-value is 0.000 which is less than alpha value (0.05). Therefore, the null hypothesis which states that Telecom Service Empathy does not affect customer satisfaction is rejected while the alternative hypothesis which posits that Telecom Service Empathy affects customer satisfaction is hereby adopted. This also establishes that a positive significant relationship exists between the Telecom Service Empathy and customer satisfaction of the service providers. This indicates that for the service providers to increase its customer satisfaction there is need to focus on Service Empathy.

The table above also shows that the regression model is fit to be used for the study as the F-stats is 165.2 with a p-value of 0.004. The table further reveals the summary of the fitted model of R-square which is used to determine the percentage of variability in the dependent (customer satisfaction) variable that can be accounted for by a change in the independent variable. The R-square value is 0.662 (66.2%). This implies that the variability changes in customer satisfaction of the organizations can be accounted for by the independent variables tested at approximately 66.2%.

The result of the analysis revealed that telecoms service promotion, service experience, and promotion affects customer satisfaction significantly, while there is no significant effect of service quality and customer loyalty telecommunication services and customer satisfaction in Abuja, Nigeria.

### **Conclusion**

Based on the findings from data collected and analysed, this study concludes the following:

Customers of telecoms service in Abuja Metropolis are not moved by the service quality offered by the telecom service providers in discharging their services as the effect is found to be insignificant. In other words telecom service quality is not a significant determinant of satisfaction for customers in Abuja Metropolis. Like service quality, Customers of telecoms service in Abuja Metropolis are not moved by customer loyalty

given to them by telecom service providers in Abuja Metropolis in discharging their services as the effect is also found to be insignificant. In other words telecom service customer loyalty is not a significant determinant of satisfaction for customers in Abuja Metropolis.

As for telecom services on promotion the other hand, a positive and significant effect was found on customer satisfaction; so promotion is a major factor to be considered by telecom service providers in their bid to satisfy their customers because findings show that customers in Abuja metropolis significantly want promo in telecom service. For telecom service experience, a positive and significant effect was found on customer satisfaction also. It is therefore another key factor to be considered by telecom service providers in their bid to satisfy their customers because findings imply that customers in Abuja metropolis significantly want more service experience in telecom.

Finally, for telecom services empathy, a positive and significant effect on customer satisfaction also found. Therefore, Empathy is also another key SERQUAL element that is significant to customer satisfaction of telecom service in Abuja metropolis. In other words, customers in Abuja metropolis significantly require telecom service with high levels of empathy.

### **Recommendations**

In the light of the study's findings, the following recommendations are made:

- The study recommends regarding service quality offered by telecom service providers in discharging their businesses activities, that they service providers can remain indifferent about such matters. In fact, as far as Abuja metropolis is concerned, they can maintain their strategies on service quality or evolve them, but it would not matter since the customers there are not significantly affected by such, as was found by the study.
- The study recommends similar regarding customer loyalty offered by telecom service providers in discharging their businesses activities, that they service providers can remain indifferent about such matters. In fact, as far as Abuja

metropolis is concerned, they can maintain their strategies on telecom service assurances or evolve them, but it would not matter since the customers there are not significantly affected by such, as was found by the study.

- Promotion of telecom services on the other hand was found to be significantly effectual on customer satisfaction in Abuja Metropolis, therefore it deserves major attention by the service providers in the region in other to gain optimal customer satisfaction and benefits that follow. The effect was positive, implying that increase in promotion of product and services will result to increase in customer satisfaction so the service providers should make concerted efforts at dishing out promo all time and improve on them.
- For Service Experience of telecom services, a positive and significant effect was also found regarding customer satisfaction of telecom services in Abuja Metropolis, therefore it also deserves major attention by the service providers in the region in other to gain optimal customer satisfaction and benefits that follow. The effect implies that increase in service experience of the service will result to increase in customer satisfaction so the service providers should make concerted efforts at continually improve their services.
- Finally for empathy in telecom services, a positive and significant effect was found on customer satisfaction of telecoms services in Abuja Metropolis. Therefore Empathy also requires major attention by the service providers in the region in other to gain optimal customer satisfaction and benefits that follow. The positive effect implies increase in empathy of telecom service will result to increase in customer satisfaction of the service so the service providers should make conscious efforts to ensure that they have the highest possible levels of empathy in their service to customers at all times and improve on them continually.

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