

Service Charges and Telecommunication Companies in Gombe State, Nigeria: The role of Nigerian Communication Commission

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Abstract

Telecommunication industry in today's world has become a requisite tool in the entire globalization process of becoming a global village. This study investigated the extent of regulatory role of Nigeria Communication Commission's on the service charges in telecommunication firms operating in Gombe State, Nigeria. The study adopted survey research design. The study is descriptive as well as hypothetical in nature. The study is a Non-contrived which is a natural setting in which work progress with minimal interference with a population of 172,871,094 subscribers from the four available networks (Airtel Network, Glo Nigeria, 9mobile and MTN Nigeria) in the State, while the sample size is 384. The hypotheses formulated were tested using multivariate analyses. The study concluded that, there is significant relationship between the variables and recommended as; the need to improve and sustain activities of the telecommunication firms in Gombe state, in terms of monitoring and enforcement in their service charges. The regulatory bodies of the telecommunication firm in Gombe state should be pro-active in ensuring that the call charges for all firms are the same to maintain fair promotion of products.

Keywords: Communication, Regulation, Service Charges, Telecommunication

Introduction

The world today is a global village given that telecommunication or communication industry at large has become a requisite tool in the entire globalization process. The roles of Telecommunication firms nowadays have become highly essential in the life of all and sundry. In Nigeria, development in this vital sector has been very phenomenal and the usage of Telecommunication (GSM) has become very prominent with noticeable effect on several economic aspects in spite of poor services and other related challenges overlooked by the regulatory authority. It is

however important to investigate the impact of this latest regulatory body on service charges of telecommunication firms in Nigeria.

One will believe that, charges are so enormous that many customers cannot justify why they always get their air time deducted at any given time. It is obvious that telecommunication market is booming, while the business seems to consistently grow with the company return on investment increase in Nigeria, where consumers are concerned on the efficiency and effectiveness of service delivery which has been frustrating them.

From time old age, information and communication has always formed the foundation of human existence (Stone, 2018). This point has driven humans to incessantly seek ways to improve the system of information and the flow of communication of such information to one another, irrespective of distance and on a real time basis (Ndukwe, 2003; Croft, 2004). The detonation in technology which piloted the information age has become the basis for defining power in the contemporary world. Stone (2018) posits that, it is a regarded fact that no modern economy can survive without central information technology and telecommunication set-up.

The regulation of infrastructure industries, such as telecommunications sector, has been affected by substantial development over the years, which shows desirability of the so-called enticement regulation procedures by the regulatory authority. Telecommunication globally has brought about radical changes on how people interact, communicate, learn, understand, work and even transactions in a commercial sector, and the impact of telecommunication sector is evidently feasible in virtually all the countries which Nigeria is inclusive.

Everything has a history which telecommunication sector is not exceptional, Olawale (2008) narrated that, Wireless Telegraphy Act of 1961 and the Rules of 1969, were major laws for guiding the sector in Nigeria since Independence in 1960. However, the law was reviewed in 1966, 1968, and 1991, thereafter the establishment of decree 75 of 1992 that established the Nigerian Communications Commission.

The telecommunication industry in Nigerian has to a certain extent toed the path of progress of the world telecommunication industry (Adi, 2015; Bongo, 2015), this has shown where state monopoly was liberated, and also the competition was weak but has grown stronger in competition as well as increasing service revolution

among others. A number of scholars have attested to the relevance of telecommunication services in national economy (Danbatta, 2017, Okada & Hatta, 1999). To Blahut (2010) communication industry has been acknowledged among scholars as an imperative device for nation's economic growth also has a notable role for the modernization of other sectors.

The success story of the industry in Nigeria has generated new entrant to the industry, considering the intense competition in the industry. Nigeria, today is the fastest growing telecommunication market in Africa (Ndukwe, 2005), with that, policies and programs to see to its progress through the regulatory agencies is paramount. In this current global dispensation, telecommunication and or ICT remain the priority for advancement.

Telecommunication is a network with different firms leaning on it for effective communication to meet the shareholders' needs and satisfy its customers. Ndukwe further orchestrated that, telecommunication is the enabler of wide based of social and economic growth and therefore, services should be available and reasonable to masses. Communication, regardless of the type and method is one of the key factors that influence the success of every firm. Globally, it has been from one era to the other as the world changes with development in general technologies. The point that Nigeria is among the world's fastest moving telecommunication industry, which serve as the major pusher of telecommunication companies in within and outside the country by financing the industry (Danbatta, 2017). It is evident that, the industry has been booming in recent times, leading to enormous investments by both private and public sector, hence the need to properly understand the service charges on customers.

Service providers are always operating in a competitive environment and customers on the other hand are looking for accessible and affordable network that meet with their demand, even though there are other factors that may influence consumers to patronize a particular service provider, but it differs among individuals, such as monopolistic network in the particular environment, price of the services, data packages, amongst others. However, some lament the frustration by the network providers as worrisome (Ajibola, 2012), giving the unnecessary call charges, standing charges and by service providers, which is the basis for this study.

Nigeria, according to NCC (2017) is among the largest telecommunication markets, with an estimated subscriber of about 149.2 million. Given the fact that, the

customers are constantly at the pace of speed and the industry offered a significant investment on return (Ukwueze, 2011-2012).

In Nigeria, telecommunication sector has been liberalized and most of the traditionally publicly owned incumbent monopolies have been privatized or cease to exist. Consequently, National Regulatory Authorities (NRA) in the name of National Communication Commission (NCC) was established to take over the affairs and proceed to thrive in the competitive markets, control, guide and supervise the relationship among the existing and new entrants, who at first relied on services among other responsibilities. Telecommunication industry, regardless of the call charges and standing charges by network providers, it is a key area where rivalry among competitors tend to demystify how to effectively offer the best network services to their consumers, but little has been done to the end users as unnecessary standing charges kept on flowing from all angles (Ellig, 2006).

Statement of the Problem

Customers' satisfaction is fundamental to every organization or firm. When end users do not see reasons for patronage, and continuously and consistently using your product or services the firm may be likely heading to doom or to some large extent may not stay long in its operation. Enormous issues and challenges (standing charges, call charges, network interruption and even the terrify plans and so on) on how those network service providers meet the demand of its customers remains unanswered especially in Gombe State where the research was conducted and such problems continue to persevere in country and in the among the young countries in which it has been severely affecting the general services of the telecommunication industry. To address some huge deficit or challenges in the sector for service users, remedial measures, rules and regulations have been put in place by the regulatory agencies of various countries across the globe, in Nigeria, Nigerian Communication Commission (NCC) is responsible and saddled with activities. In spite of the policies and rules by NCC to network service providers in Nigeria, it seems that it continually falling on the deaf ears of the operators.

The current advancement of telecommunication sector in Nigeria, its been echoed by extreme customer enlargement which makes the operators to introduce new service charges and other related services like tariff which does not always favour the consumers, hence the need for proper monitoring and enforcement by the regulatory agency. Customer criticisms in the communication sector in the country recount to the rate of charges and excellence of services provided by the service providers. Some of the major issues relating to service charges include amongst

others; unexplainable charges or credit deductions, wrong charges, numerous billing and charging against untendered service, for example, text messages sent that was not received by the receiver. However, other issues connecting to quality of services which failure to get your line recharged as a result of not working recharge card or poor system; call setup inability including interruption service, fractious talk, dropped calls, and other wireless lines. Similarly, some of the common complaints include unnecessary and or deceptive advert, scam messages, inferior tools used by telecommunication firms or their proxies; closeness of the masts to residential areas or offices and pollution power supplies.

Impediments to service charges by network providers remain a serious and growing concern especially in Gombe State. The dramatic manifestation of some strange service charges and the increasing integration of same on the un-soliciting charges have turns into myriad forms of economic challenges since communication has become priority. There are four network providers in Gombe state these are, Glo network Nigeria, Airtel Network, Etisalat (9mobile), and MTN. This study intends to investigate the extent to which service charges by these network service providers impact under the regulatory agency in Nigeria. Since limited studies were carried out in the field. For example, Ellig (2006) conducted similar study but was limited to cost and consequences of Federal telecommunication regulations. In the same vain, Bongo (2015) carried out similar research, but was limited to competitiveness of the industry. The objective of this study is to examine the impact of monitoring and enforcement on the standing charges of the telecommunication firms in Gombe State, to assess the impact of promotion of fair competition by the regulatory body on the call charges by the telecommunication firms in Gombe State. Lastly to determine the impact of protection approach by the regulatory agency on the network interruption of the telecommunication firms in Gombe State. Thus, the following hypotheses are formulated:

H₁: there is no positive relationship between monitoring and enforcement with service charges in the telecommunication industry in Gombe state;

H₂: there is no significant relationship between promotion of fair competition in the telecommunication industry and service charges in Gombe state;

H₃: there is no significant relationship between protection approach by regulatory body of the telecommunication industry and service charges in Gombe State.

Literature Review

Nigeria Communication Commission (NCC) as a Regulatory Agency

Nigeria Communication Commission (NCC) is the sole regulator of the telecommunication sector in Nigeria which has been powered by the NCC Act of

2003. Nigeria Communication Commission (NCC) is the sole regulator of the telecommunications sector and is vested to ensure the ‘protection and promotion of the interest of consumers against unfair practices including, but even though not limited to issues of tariffs and charges, efficiency and effectiveness of communication services, materials and facilities’(Nwakanma, Udunwa, Anyiam, Ukwunna, & Obasi, 2018; Jacob-obi, 2018). However, the regulatory body also has the responsibility of handling fair competition in the industry and fortification of communication services and service providers from misapplication of power, while Economides (2004) opined that regulators assist in unfair practices by other service or facilities provider or equipment suppliers’ that are relevant in the telecommunication industry even as it costs both the consumers and the regulatory body huge amount.

Regulatory agency is playing a significant imperative role in the growth of the Nigerian telecommunications sector at large. The advancement in Technological system is one aspect that mobile communication is key and can be seen from services rendered by the service providers. In spite of the evolving issues of high tariff, drop calls and unnecessary charges in the sector by the service providers, still competition among the new entrant including the incumbent telecommunications service providers in Nigeria. Even though, with the current regulatory era, consumers may be apt to benefit, in terms of low charges and boosted value, but seems the other way round as this study is keen to investigate and when the existing service providers are subject to the forces of the market. Though, industry specified guidance is in place, regulatory establishments have some significant role in imposing functional rules, where they not implemented and by offering important counsel regarding and encouraging for the efficient ways to remained in the same system of maintaining the rules.

After the inception of the NITEL in 1985, the telecommunications industry has seen a significant development. However, the country is waging far below expectation if compared with even some near African nations, not to talk of the developed countries like USA, Germany and UK (NBS, 2015). Even though, Nigeria has since deregulated the industry just to solve some issues and observe some challenges. It was the result the deregulation that necessitated the establishment of Nigerian Communications Commission (NCC) in 1992, Decree 75, saddled with the responsibility are amongst other things; providing enabling environment for the regulation and offering of telecommunication services, also through that, new entrant (private) into the market were allowed and fair completion were promoted.

In 1993 when the Nigeria Communication Commission were inaugurated, in its Quarterly report of 2013, that there are guidelines that have been in place since its inception individual/companies/investors which were later given a mandate to do some technical works in the industry such as repairing and other maintenance of network links. Furthermore, new tariff is being guided by some principles, one has to apply through the licensed and is registered with the NCC, also all proposed tariff by the licensed operator must be presented to the commission for approval, the price of the tariff under request should be in line with price tagged by the commission, among other regulation concerning the services offered by the operators in the industry. According to Ellig (2006) Afonso and Scaglioni (2006) the most important point in the process is the time frame after the approval, the commission demanded that, tariffs approved should be declared within sixty days (60) after the approval has been delivered and approved by the commission or such approval have to be revoked and in a situation where the operator have interest in the services, he/she has to re-apply from the commission. However, Mawoli (2009) and Okonji (2013) stated that all operators in the telecommunication industry will sign a Memorandum of Understanding (MOU) which will state all ethics and principles concerning the product offered and the tariff are in terms with commission's rules. However, if the operator(s) tempered with the terms of engagement before or after the submission, the applicant has to re-apply for the approval.

Telecommunication in Nigeria

Telecommunications nowadays is significant to the nation's economy, it serves as ladder that stimulates the advancement of other sectors, especially in education to health, transportation agriculture, banking to tourism to mention but few (Afonso & Scaglioni, 2006). However, it is crucial in periods of emergencies or natural adversities which will harness the situation. Similarly, according to Ellig (2006) it substantially decreases the rate of risks and severities of journey and rural-urban movement.

Similarly, telecommunication industry has long been recognized across the globe as an imperative instrument for socio/economic progress of a country and plays an extraordinary part in development and transformation of numerous sectors of the economy through connectivity, as this has been proven in (Nwakanma, Udunwa, Anyiam, Ukwunna, & Obasi, 2018). Some people often see telecommunication sector as the most lucrative industry now across the globe (Freeman, 2005). In Nigeria for example, there are over 100 million households who have telephones and 50% of total households in the country have Internet access and there are some over 170 million mobile subscribers (NCC, 2018). With that, it is enough reason to

understand that, the industry need to be checkmated on their operational activities. Freeman (2005) assert that telecommunication is the “transmission of signals over long distance, these include; telegraph, radio, or television. From the above definition, the author also relates it to as electrical communication inclusive. Even though it looks like descriptive statement, but to some extent broader dimension. However, many said that, telecommunication is concerned with voice telephony and the one offering the service is the local telecommunication company, thus, this study holds a wider understanding of the concept. Telecommunication comprises the “electrical communication at a distance of voice, data, and image information”, for example, TV.

The official website of the commission indicates that, the Nigerian Communications Commission (NCC) there were one hundred and seventy-two million eight hundred seventy-one and ninety-four (172,871,094) on the go customers on the telecommunication networks in the country as at 2018 December, in November 2018 there was a contradiction with 169,104,830 customers recorded. This was disclosed by the NCC during their end of the Month Subscriber/Operator, the information was published on NCC website on the 27th march, 2019. The regulatory commission (NCC) reports that the active subscribers increased by 3,766,264 (Onuegbu, 2018).

Accordingly, individual networks records obtained from the reports on the commissions site stated that, MTN Nigeria had 67,133,009 subscribers in December 2018, with a growth of 158,017 from the 66,974,992 it recorded in November 2018. While Glo Nigeria, the number has increased in December with 1,982,109, Airtel Nigeria had 44,180,484 subscribers as at under review, which showed an increase of 1,061,330 users, from the 43,119,154 it recorded in 2018 November. While, 9mobile had 15,917,015 subscribers in 2018 December, having an increase of 555,344 subscribers, against 15,361,671 in November 2018.

Service Charges

Charges on the services rendered by the telecommunication companies is no doubt play a role in motivating customers to either switch or remain where they are with certain service provider. Recently, the Nigerian Communication Commission (NCC) has intensify its mandate to educate telecommunication consumers on the service charges (Jerome, 2003), this is more of consumer awareness outreach which enlighten the effort, care and concern of the regulatory body on the side of the consumers.

The essence of service charge is to qualify the service provider to generate all actual value of expenses not just for services in its present nature, but also envisaging any rational way or modification in the future (Philpott & Hicks, 1994). The basic of service charges relied in taking the perception of both the owner and the lessee. Most often, all side views the prominence of service charges in a different way, and to their best interest. Edward and Krendel (2007), show that the owner will want to recover all expenditure from the lessee. The lessee sometimes will ensure that the recoverable things are limited to the indispensable services for the assets. Martin (1981) opined that, service charges is the “cost to a customer in indemnifying service provider against real and potential expenses on the shielding, maintenance and replacement of the equipment and other infrastructure.

Sometime in 2001, under the then Olusegun Obasanjo administration, when GSM was introduced in Nigeria, customers were paying high tariffs for the utilization of the available services (Mawoli, 2009). Also, customers for those service providers had little or no choice to somewhat due to few service operators, scope of coverage and lack of considerable evidence about the telecommunication services, therefore, consumers have no option than to agree to the service as it was (Nwakanma, Udunwa, Anyiam, Ukwunna, & Obasi, 2018 and Jacob-obi, 2018). However, as the time goes on and with the entrance of more network providers into the market, it seems that now customers’ have better knowledge of what is happening with the service charges in the telecommunication industry especially the tariff and other service charges, as such it makes the subscribers to look for better services and value for the amount paid. According to Freeman (2005) telecommunication consumers (customers) to some extent are fade up with some challenges they faced from service providers, these include among other challenges are; too much charges on drop calls, weak networks, nonchalant attitude from customer cares, unnecessary text messages, poor service value, and unsustainable advertisement. This makes subscribers to change or switch to other available networks.

Monitoring/Enforcement and Service Charges

One of the important or fundamental point in the activities of telecommunication is voice call and is the most efficient and frequent dimensions in getting it back from the receiver, but the standing charges may and is making many consumers to a rethink of staying with the particular network provider, hence the need for proper monitoring or enforcement of laying rules and regulation. Therefore, anything less and above stipulated charges set by the regulatory body on the service may either affect the entire process or the end users. Considering the current economic

situation bedeviling the country (Nigeria), it is significant for the study to understand the extent at which this call charges can influence the general activities of telecommunication industry in the country (Brown, 1999).

While monitoring and or enforcement in determining call charges for a switched call according to Brown (1999), dimensions that can influence the prices are the place and location/destination of the customer that is called, the timing of the call in question and finally the system that the call was initiated. In particular, calls which are established through dialing system are frequently charged at a lesser rate than charged calls through the manual machinist (Brown, 1999).

Promotion of Fair competition and Service Charges

Enormous telecommunication competition persists in country and even in some countries in such a way that ruthlessly affected the performance and development of the economy, which makes it to offer poor service of all categories. Telecommunication industry is known to lucrative that lead to or believed to be highly competitive (Adi, 2015). Norton (1992) claims that telecommunication sector has reduced the cost getting information and as well the variable costs of competing among the rivalries.

The liberalization of the sector ushered in the first Global System for Mobile Communication (GSM) operator and the award of the first Digital Mobile License (DML) in 2001. Since then, according to Lola (2016) the industry has observed an exceptional growth in terms of investments and development, which shows over \$29 Billion from 2001 to 2018. The sector has witnessed new entrant which make the competition so stiff in the market, with a number of customer base across all networks. Innovative and initiatives approach of the operators in the industry has enriched consumer experience by restraining difficulties to accessing alternative services of another network. In spite the recent reforms in the industry to address the challenges of infrastructural decay, which has been seen as the primary step, with the good record of success of comparable strategies in a developed country, still competition remains an issue especially in respect to call charges. Two crucial components of these reforms according to Roller and Waverman (2001) are privatization and rivalry among operators. The much argued aspect of it is that, private sector professional and turnover intention has allowed the private sector operate infrastructure industries more efficient than the public sector. Thus, it does not really apply where competition does not follow privatization, particularly when the regulatory authority is not up its responsibilities. For that reason, the

stakeholders are seeing competition as one of the tools that will or could make the telecommunication sector stronger and compete at the global level.

Protectionism and Service charges

The sole responsibility of the regulatory authority is to protect the interest of the telecommunication consumers (Ukwueze, 2012). Some studies like that of Paul (2011) viewed that since its inception, telecommunications sector has been seen by many including government agencies and Department as a “natural monopoly sector”, by that, the provision of services by telecommunications industry was believed to be more organized, efficient and cost effective if controlled by an operator, instead of multiple operators inflicting extensive and expensive network infrastructures at high cost to the physical area and economy at large. However, governments thence afterward have taken the responsibility of providing telecommunications services through their Public Switched Telecommunications Networks (“PSTNs”), trusting the service would be better with that approach, however, the multipurpose service is believed to be stronger where the heavy network infrastructure costs were managed by the public instead of the private owners where the service operators are being guided generally by government policy objectives. Even though the paper was a mere opinion that it was not empirically proven to the effect of its assertion. This study will empirically observe the extent of the regulation operation has impacted on the industry with multiplicity network providers against the opinion of Paul above regarding network interruption.

Penalties and Tariff Plans

Tariffs are vital in defining access to the service area and extending same. The essential argument to contemplate is how to connect socio-cultural beliefs with the economic issues of the service providers so as to link and understand the tariffs charged are on same page with the socio-economic realities of the country like Nigeria of today. In its effort to ensure this objective is achieved, the NCC Act has since established guidelines for determining tariffs, see tables below. However, considering the competitiveness in the industry, the tariffs do fluctuate among the network providers, though, the general tariffs regime in the country has been closely monitored by the NCC, approval and certificates of service provider some guide, regulations and cost of tariffs to be charged. In this study, tariffs of the service providers under study are tabulated. According to Nigerian Communication Acts of 2003 which state that, the Nigeria Communication commission is

responsible for the approval of tariffs and any other charges as it may concern, this is cited in section 108 of the ACT 2003 of NCA.

Telecommunication service providers in Nigeria differs when it comes to method and what they charge for the services rendered to the consumers which is called “Tariff plan.” Tariff plans billing systems are mostly different even though is provided by telecommunication network operators which also specify the charges that will be paid by the subscribers of their networks. In this study one of the fundamental questions raised is the impact of regulatory body in the tariff plans of network providers in the country. According to Paul (2011), end users have been jumping from one network to the other looking for the cheaper or reliable network, this is because many of the tariff plans are usually fixed at rate, irrespective of whether the call was at peak times or not while some are on peak and off-peak charges.

When asked by a GSM subscriber according to the study of Paul (2011), was trying to ask if the present subscriber prices charged is really reasonable, even though in the report of NCC at its monthly report of 2015, that the prices as of then were not justifiable considering the competition in the sector, seemingly, the prices are been fixed and determined by the current forces in the market and in that report, it claimed that, it is not their duty to determine the prices considering the free interplay in the industry. This has contradicted their present role in justifying the current prices in the market, where even the present Minister opined that, Data and other related charges are being controlled and managed by the commission. Hence, gives this study an edge to investigate the role of the regulatory authority on the service charges in the telecommunication services.

Empirical Studies

This segment presents the review of the related literature in the field so as to establish a fact and or foundation for the investigation of the regulatory impact of service charges on the telecommunication firms in Gombe metropolis. The empirical studies included previous related studies conducted in various places in Nigeria and beyond.

Lola (2016) investigated the effects of telecommunication infrastructural development on the Nigerian economy at large and examined the growth implication. The study used Secondary data and data generated was later analyzed using econometrics statistical tool. In the econometrics tool adopted, model was specified and Ordinary Least Square (OLS) approach was used in estimating the

results. Similarly, the results of the study showed that telecommunication have influenced the economy development by aggregating the market access and decreased the channeling cost, which to some extent inflicted the service operators cost. In furtherance of that, the results of the study showed how GSM has empowered Nigerians to do their businesses easily leading to the higher performance, employment generation among teaming youth and prevalence through increase in income generating capacity and business expansion; improving the standard of living; has increased the economic level of the country at large and kindle the economy to reach the anticipated macroeconomic policy level. In this study, it shows that, GSM has direct relationship with the performance of business and invariably boost the economic level of both individual and society. Therefore, this study will complement the above assertion after making vital recommendations on the impact of regulatory body on service charges in the industry.

Ellig (2006) conducted similar research on the United State of America (USA), with the aim of investigating the cost implication of regulatory body in the telecommunication sector in the State. It specifically centered on the regulatory variable aspect of system. According to the study, rules and principle determines which service are charged above the normal price, which services are priced below normal cost, and the subscribers will be charged too much in order to subsidize others. Some of the indicators used by the study include 911 services within the state on the economic activities such as inflation rate, health and hospital factors. The study observed that, all the variables adopted in measuring the major issue have been impacting significantly to some extent. Therefore, the study concluded and recommended that, the government at the center should achieve the entire telecommunication allocations for minimum charges to community through final revenue system. This can reduce the social price by sponsoring the transmissions with same charges on internal call bills, related to the government subscriber line price.

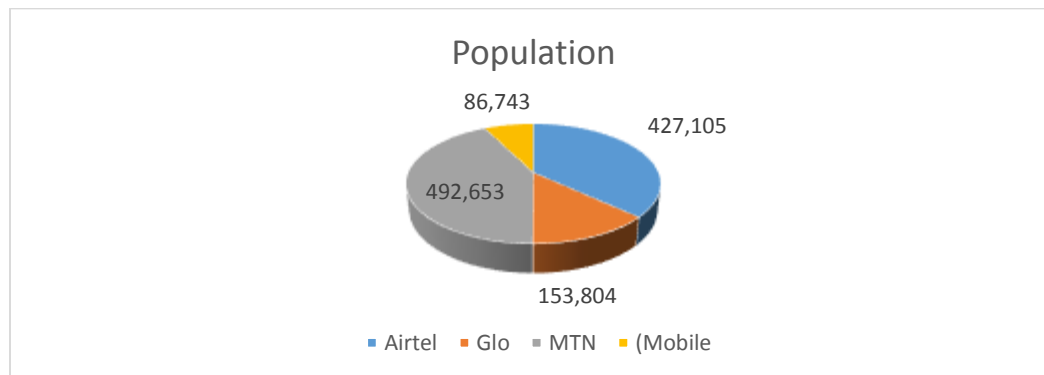
The FCC has made choice to strategize out the unbundled network component level, the study observed that, if upheld, it should as well considerably decrease the amount of price reallocated through regulation and motivate infrastructural level rivalry in internal call service rate. Some government regulations policies succeed positive results, but not very effectively (Lola, 2016). The study understands that, adopting multiple services programme could increase the number of subscription of telephone but it will cost into billions of naira it said.

Afonso and Scaglioni (2006) conducted to assess the performance of “National Regulatory Authorities “among the sixteen (16) European Union nations

concerning economic policies in telecommunications industry. By establishing a supposed Composite Regulatory Performance Pointer for regulatory parts such as efficiency of the commission, effectiveness of the dispute settlement system and general market access conditions. The results indicated that inadequacies could be positive and good developments is likely among the countries and the study concluded that, regulatory authority should consider the easiest application of a dissimilar type of regulatory involvements (Woln, 2000).

Methodology

This study is a cross sectional approach, the data was gathered at once and is a positivist, because research design in a positivist setting covers decisions leading to success (Sekaran, 2003), as such the structure was the survey research by seeking the opinion of many respondents. The study is descriptive as well as hypothetical in nature. The study is a Non-contrived which is a natural setting in which work progress with minimal interference while study is conducted. The population of this study comprises of the entire network subscribers of the available networks (Airtel Network, Glo Nigeria, 9mobile and MTN Nigeria) in Gombe metropolis. The entire population in Nigeria is 172,871,094 active subscribers on the telecommunication networks as at December 2019, as against 169,104,830 recorded in November 2018 (NCC, 2018). However, this study has been narrowed down to Gombe State therefore, the specific population for this study is the entire network subscribers in Gombe state, which is 1,160,305 (Airtel 427,105, 9Mobile 86,743, Glo Nigeria 153,804 and MTN 492,653).



The size of this study was 384 participants. This is in line with Krejcie and Morgan (1970), who maintained that, if the estimated population is more than and or above one million suggested to adopt 384 size (See appendix i). Stratified sampling technique was adopted in categories of the network providers first, so that they all

have equal chance of participation. This is in line with the work of Singh and Masuku (2014), stratified sampling were employed to categorize the population of the study from a stratum for the population. However, purposive sampling technique has been used in selecting the subscribers as well as staff of the network providers, this is due to their relevance to the investigation as a respondent, and this has been backed by Singh and Masuku (2014) and Ilker and kabiru (2017) who opined that, sampling design is centred on the verdict of the scholar, as to who will provide the best information to succeed for the objectives, where the work need to focus on specified group with the particular view to have the needed information and the willingness to share same. Also Dolores (2007) further affirmed that purposive sampling is a type of sampling in which a person or events are deliberately selected for the important information they can provide that cannot be gotten as well from other choices.

A five-point Likert scale questionnaire with closed ended questions was used to solicit responses from respondents. The study used descriptive statistical analysis approach to analyse the sample characteristics, thereafter, the hypotheses formulated earlier were tested using multivariate analyses with the aid of Statistical Package for Social Sciences (SPSS) version 23.

Result and Discussion

Out of range values

This study conducted an out of range values (ORV) test. This is to determine whether the coded values were entered correctly or a human error was committed during data entry. There was a double entry of figure which was corrected and presented in Table 1.

Table 1: Out of Range Values

	N	Minimum	Maximum	Mean	Std. Deviation
Q1	384	1.00	2.00	1.3616	.48182
Q2	384	1.00	4.00	2.1977	.86628
Q3	384	1.00	5.00	1.4294	.77374
Q4	384	1.00	4.00	3.0227	.67574
ME1	384	1.00	5.00	4.1299	1.02251
ME2	384	1.00	5.00	4.0791	.91977
ME3	384	1.00	5.00	4.3503	.86037
ME4	384	1.00	5.00	4.2486	.90786
ME5	384	1.00	5.00	4.2655	.91241
PFC1	384	1.00	5.00	4.2429	.82073
PFC2	384	2.00	5.00	4.2147	.75318
PFC3	384	2.00	5.00	4.2203	.77021
PFC4	384	2.00	5.00	4.1582	.79619
PFC5	384	1.00	5.00	4.2373	.83949
PA1	384	1.00	5.00	3.9548	.86484
PA2	384	1.00	5.00	4.1469	.81248
PA3	384	1.00	5.00	4.0904	.81378
PA4	384	1.00	5.00	4.0000	1.01130
PA5	384	1.00	5.00	4.1130	1.13753
SC1	384	1.00	5.00	4.4068	.77133
SC2	384	1.00	5.00	4.1921	.83757
SC3	384	1.00	5.00	4.0565	.86417
SC4	384	1.00	5.00	4.0847	.99923
SC5	384	1.00	5.00	2.8103	1.19426
Valid N (listwise)	384				

Source: SPSS 22.0

From Table 1, the minimum value of the entered data is 1, while maximum scale is 5. No value was found to be higher than 5. Therefore, indicating that all the coded data were correctly entered.

2. Missing values (MV)

Table 2: Missing value

	N	Mean	Std. Deviation	Missing		No. of Extremes ^a	
				Count	Percent	Low	High
Q1	384	1.3616	.48182	0	.0	0	0
Q2	384	2.1977	.86628	0	.0	0	0
Q3	384	1.4294	.77374	0	.0	0	7
Q4	384	3.0227	.67574	0	.0	.	.
ME1	384	2.2090	1.23230	0	.0	0	0
ME2	384	2.1299	1.27032	0	.0	0	0
ME3	384	4.1299	1.02251	0	.0	15	0
ME4	384	4.0791	.91977	0	.0	11	0
ME5	384	4.3503	.86037	0	.0	8	0
PFC1	384	4.2486	.90786	0	.0	9	0
PFC2	384	4.2655	.91241	0	.0	13	0
PFC3	384	4.2429	.82073	0	.0	5	0
PFC4	384	4.2147	.75318	0	.0	4	0
PFC5	384	4.2203	.77021	0	.0	5	0
PA1	384	4.1582	.79619	0	.0	4	0
PA2	384	4.2373	.83949	0	.0	8	0
PA3	384	3.9548	.86484	0	.0	0	0
PA4	384	4.1469	.81248	0	.0	3	0
PA5	384	4.0904	.81378	0	.0	6	0
SC1	384	4.0000	1.01130	0	.0	0	0
SC2	384	4.1130	1.13753	0	.0	20	0
SC3	384	4.4068	.77133	0	.0	4	0
SC4	384	4.1921	.83757	0	.0	8	0
SC5	384	4.0565	.86417	0	.0	0	0

Source: SPSS 22.0

This research conducted a missing value test, to determine if the missing values are bias to the result. Table 2 shows that there is no serious missing value, since it indicated that the percentage of missing is 0.0%.

3. Normality Test

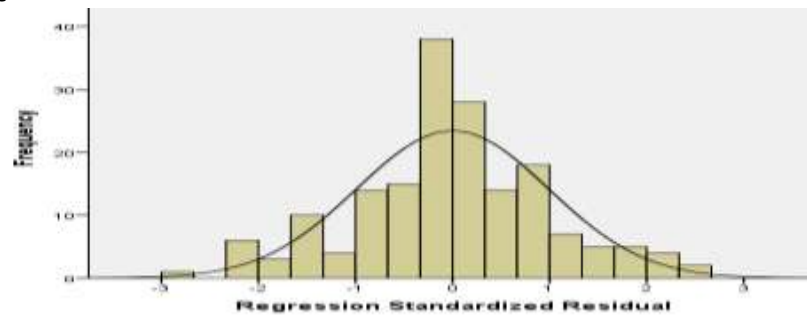


Figure 1: Normality Test

Figure 1 shows a histogram that was used to test for the normality of the data. The diagram shows that the bell-shaped are evenly skewed to the right and to the left. Therefore, it is normally distributed, and appropriate for the estimation of parametric test.

Reliability Test

Table 3: Test of Reliability

S/N	Questionnaire Constructs	Cronbach Alpha Reliability Result	Number of Items	Remark
1	Monitoring and enforcement	0.796	5	Reliable
2	Promotion of fair competition	0.788	5	Reliable
3	Protection approach	0.750	5	Reliable
4	Service charges	0.718	5	Reliable
5	Overall	0.764	5	Reliable

Source: SPSS 22.0 Output

PER

Table 3 shows the result of the Cronbach for each construct used for this study. Cronbach Alpha enables the researcher to test for the suitability and fitness of the

instruments for data collection. The result in table 3 shows that the value of the Cronbach Alpha for each construct are 0.796, 0.788, 0.750, 0.718 and 0.764. This implies that the instrument is reliable.

Descriptive Statistical Analysis

This sub-section comprises the descriptive statistics which present the results of the characteristics of the respondents such as the Gender, Age group, the marital status and types of network.

Table 4: Age Range of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than 20years	125	32.6	32.6	32.6
	21 - 30 years	172	44.8	44.8	77.3
	31- 40 years	63	16.4	16.4	93.8
	40 years and above	24	6.3	6.3	100.0
	Total	384	100.0	100.0	

Sources: Survey 2019

Table 4 shows the frequency and percentage of the respondents' age group. The result shows that 125 of the respondents which has a percentage of 32.6% are less than 20 years old. Also, 172 respondents representing 44.8% are found to be between the age ranges of 21-30 years. 63 of the respondents representing 16.4% are between the age ranges of 31-40 years. Finally, 24 respondents representing 6.3% are 40 years and above.

Table 5: Marital Status of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Single	135	35.2	35.2	35.2
	Married	249	64.8	64.8	100.0
	Total	384	100.0	100.0	

Sources: Survey 2020

Table 5 shows the result frequency of respondents based on their marital status. It revealed that 135 of the respondents representing 35.2% are singles. While, 249 respondents representing 64.8% are married.

Table 6: Gender of Respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	132	34.4	34.4	34.4
	Female	252	65.6	65.6	100.0
	Total	384	100.0	100.0	

Sources: Survey 2020

Table 6 shows the result frequency of respondents based on their gender inclination. It revealed that 132 of the respondents representing 34.4% are male. While, 252 respondents representing 65.6% are female.

Table 7: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
SC	384	1.80	5.00	4.1582	.58606
EM	384	1.80	5.00	4.2147	.68756
PFM	384	2.00	5.00	4.2147	.58583
PA	384	1.40	5.00	4.0610	.66256
Valid N (listwise)	384				

Source: SPSS 22.0 Output

The results indicate that the mean scores of the latent variables range between 3.9126 and 4.2147 on a 5-point Likert scale, while the standard deviation ranges between 0.585 and 0.687. The standard deviation is small relative to their respective means, implying that the statistical mean provides a good fit of the observed data (Field, 2009). Therefore, confirming that the study sample is an accurate reflection of the population.

Table 9, reveals that monitoring and enforcement correlates with service charge ($r=0.786$, $p \leq .05$). Promotion of fair competition correlates to service charge by ($r=0.786$, $p \leq .05$). Protection approach and service charge are correlated by

($r=0.737$, $p \leq 0.05$), implying a strong correlation between the dependent and

		SC	EM	PFC	PA
SC	Pearson Correlation	1	.786**	.786**	.737**
	Sig. (2-tailed)		.000	.000	.000
	N	177	177	177	177
EM	Pearson Correlation	.786**	1	.716**	.528**
	Sig. (2-tailed)	.000		.000	.000
	N	177	177	177	177
PFC	Pearson Correlation	.786**	.716**	1	.597**
	Sig. (2-tailed)	.000	.000		.000
	N	177	177	177	177
PA	Pearson Correlation	.737**	.528**	.597**	1
	Sig. (2-tailed)	.000	.000	.000	
	N	177	177	177	177

independent variables.

Table 10: Regression Results
Dependent Variable: SC

	<i>Model</i>	
	Coefficient	P-value
constant	0.176	0.234
EM	0.319	0.000
PFC	0.230	0.000
PA	0.203	0.000
R²	0.821	
N	384	
F*	194.391	0.000
Durbin-Watson	1.953	
VIF	2.139, 2.603, 2.298 and 2.431	

Table 10 shows that the coefficients are positive and statistically significant at 1% level. Also *R*-Squared which shows the proportion of the total sample variation in the dependent variable that is explained by the independent variable is 0.821 shows that 82.1% contribution of monitoring and enforcement, promotion of fair competition and protection approach to service charge. The result also indicated that there is no auto-correlation since the Durbin-Watson value is approximately 2. The *F*-statistic has a value of 194.391 and *p*-value of 0.000. It means that there is strong linear dependency of the coefficients jointly, thus, the model is a good fit statistically.

The variance inflation factor for the predictors is used to test if there is a strong linear association among them. The result of the multicollinearity shows that there is no multicollinearity among the independent variables, since the values of the VIF are less than 4 which is the benchmark.

Test of Hypotheses

Hypothesis 1: There is no significant relationship between monitoring and enforcement and the service charges of the telecommunication firms in Gombe State. The result in table 10 shows that the relationship is positive and statistically significant ($\beta = 0.319$, $p < 0.05$), thus hypothesis 1 was supported. This means that there is a significant relationship between monitoring and enforcement and the service charges of the telecommunication firms in Gombe State.

Hypothesis 2: There is no significant relationship between promotion of fair competition by the regulatory body and the service charges by the telecommunication firms in Gombe State. The result in table 10 indicates that the relationship is positive statistically significant ($\beta = 0.230$, $p < 0.05$) thus hypothesis 2 was supported. This indicates that positive change in promotion of fair competition influences is associated with a positive change in call charges by telecommunication firms in Gombe state. Therefore, there is a significant relationship between promotion of fair competition by the regulatory body and the call charges by the telecommunication firms in Gombe State.

Hypothesis 3: There is no significant relationship between protection approach by the regulatory agency and the service charges by the telecommunication firms in Gombe State. The result in table 10 indicates that the relationship is statistically significant ($\beta = 0.203$, $p < 0.05$) thus hypothesis 3 was supported. This means that a change in protection approach influences is associated with a change in the service charges. Hence, there is a significant relationship between protection approach by the regulatory agency and the service charges by the telecommunication firms in Gombe State.

Conclusion and Recommendations

The main objective of this study is to evaluate customer perception toward Nigerian communication commission regulation of service charges by telecommunication firms. Specifically, the study examined the effects of monitoring and enforcement, promotion of fair competition and protection approach on service charges by the telecommunication firms in Gombe State. It was established that monitoring and enforcement has a significant effect on service charge in Gombe state. This means that effective and efficient monitoring and enforcement by the network providers will result to a cost effective service charge in Gombe state. It was also found that that promotion of fair competition has a significant effect on service charge in Gombe state. Promotion of fair competition by the regulatory body reflects the

ability of the telecommunication firms to engage in promotional activities that will lead to reduced call charges for customers. Similarly, the study established that protection approach has a significant effect on the service charge in Gombe state. This implies that, effective consumer protection in terms of telecommunication firms will lead to significant reductions in service charges which will encourage consumers to continue to patronize the telecommunication sector. Based on the findings of this study, the following recommendations are made:

1. There is need to improve and sustain activities of the telecommunication firms in Gombe state in terms of monitoring and enforcement in their service charges. There should be strict monitoring and effective enforcement of the activities of the telecommunication firm. This will encourage customers remain loyal and satisfied.
2. The promotion of fair protection was found to have a significant relationship to call charges by the telecommunication firms in Gombe State. Here the regulatory bodies of the telecommunication firm in Gombe state should be pro-active in ensuring that the call charges for all firms are the same to maintain fair promotion of products. Where is there is unbalanced fair promotion, customers suffer through exploitation by exorbitant charges.
3. Protection of the customer should be utmost importance in the telecommunication firms. This is because a well-protected customer from high service charges will result to significantly satisfied customers. The regulatory bodies should always and regularly ensure customers are not exploited.

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