

SUBSCRIBERS' PERCEPTION OF REGULATION OF GLOBAL SYSTEM FOR MOBILE TELECOMMUNICATION (GSM) SERVICES IN NIGERIA: THE EQUALITY OF THE MARKET

Micah Damilola John

Department of Sociology and Anthropology
Igbinedion University, Okada, Edo state

Accepted 25th September, 2013

ABSTRACT

Although Global System for Mobile Telecommunication (GSM) and Code Division Multiple Access (CDMA) services operate in the deregulated telecom sector, government still hold much grip through its regulatory agencies. This study examined subscribers' satisfaction with the activities of Nigerian Communications Commission (NCC) and Consumer Protection Council (CPC) in Ibadan, Southwestern Nigeria.

The study surveyed a sample of 1600 respondents selected from Ibadan Main City (MC) and Less City (LC). Also, 34 In-depth Interviews (IDIs) and 4 Key Informant Interviews (KIIs) were conducted.

Fifty four percent of the respondents from MC and 60.0% from LC described deregulation as beneficial. A total of 32.8% described CPC as effective in its mandate, while 68.0% stated that NCC was effective in its mandate. Qualitative data showed that many respondents did not know that CPC had a role to play in the sector. Most respondents were familiar with NCC as regulator in the sector, though the agency was labeled as partial and not sincere in its activities. NCC and CPC officials identified unethical practices in promotions by service providers, exploitation of subscribers and problem of infrastructure as real challenges in the sector.

The role of NCC and CPC will continue to be relevant in the sector to distribute the gains of deregulation equally among stakeholders. Regulatory agencies should be proactive in mitigating the challenges in the sector and protect subscribers from abuse and exploitation from service providers.

KEYWORDS: Telecommunication, Deregulation, Regulation, GSM, Benefits

INTRODUCTION

Telecommunication was deregulated in the last eleven years. This suggests that government no longer has big weight or influence at regulating whatever goes on in the sector. Looking at the fundamental definition of deregulation, the point may be clear. Deregulation presupposes that individuals who have financial powers are given opportunities to operate an area of business in a prescribed sector of the economy. In this way, government reduces, relaxes or somewhat removes bureaucratic barriers that inhibit free flow of private capitals to compete under the principle of demand and supply. At the same time, deregulation does not suggest complete ownership of government properties through asset sales e.g. privatization. Also, it does not suggest that government no longer exercise some discretionary control of the sector. Simply put, deregulation means the collaboration between public and private initiatives to enhance provision of essential services.

Now telecommunication sector has been dominated by mobile services providers e.g. MTN, GLOBACOM, AIRTEL, ETISALAT and STARCOMS etc who determine the prices of their commodity through competition. In this same market, access and utilization of telecom services have soared. Teledensity has continued to double since 2001 given the current rate of 81.75% as at January 2013. More benefits have been accrued to subscribers in terms of income, job opportunities, connecting families and friends, internet services and information resource to mention a few. At the same time, these subscribers have been made to face some challenges which ranged from tariffs, frauds, erection of GSM mast close to residential buildings, kidnapping and murder, and poor quality of services among others. These problems have potential of neutralising whatever positive views that may be held to appreciate telecom deregulation. Also, that NCC is a regulator of the sector yet subscribers have not ceased for once to complain poor quality of services, posits a negative omen of deregulation. The main issue in this study will attempt to examine the activities of NCC and CPC in Nigeria at large and specifically in Ibadan.

RESEARCH OBJECTIVES

The specific objective was to:

1. Examine the stakeholders' (subscribers, GSM providers, NCC and CPC) description of government policies of GSM services in Nigeria

2.1 LITERATURE REVIEW

The control of Nigeria's telecommunications sector as at independence, was vested in the Department of Post and Telegraph (P&T) owned by the Federal Government. In the early 1980s, the Nigerian External Telecommunications (NET) was formed to provide external communications services. Following increased demand for the commercialisation of telecommunications services, the Federal Government initiated the merger of NET with the telecommunications arm of P&T to form the Nigerian Telecommunications Limited (NITEL) in 1985 (NCC, 2009). Following the merger, NITEL was saddled with the sole responsibility of meeting the telecommunications needs of the Nigeria. However, the telecommunication organisation was unable to meet the growing demand for telecommunications services by Nigerians. At independence, in 1960, the country had only 18,724 telephone lines. Up till 2001 when the sector was deregulated, NITEL could not expand the installed capacity beyond 700,000 lines, thus limiting access to information and

communications technology (ICT) in Nigeria. During this period, ICT was at infancy in Nigeria. Knowledge and use of computers was available to only a few people and they were either in multinational oil companies or a few government agencies e.g. NITEL (Ndukwe, 2009).

The telephone subscriber base for telecommunications from 1985 when NITEL was established to 2001 when the industry was liberalised grew at an average rate of 10,000 lines yearly (NCC, 2009). The record was dismal for a country with huge population, abundant human and natural resources and huge prospect at independence. The situation was worsened with only 400,000 lines actually connected to subscribers as at 1999. To address the impediments to telecom growth, the government introduced '090' analogue mobile post-paid telephony run by NITEL. Yet the development was confronted with hefty unpaid bills as several of its customers could not pay up. Subscription to the NITEL analogue system cost as much as N200,000 naira to get a line and handset with the monthly post paid bills running into tens of thousands of naira (Tella, 2007). A number of subscribers abandoned the lines after accumulating bills in hundreds of thousands and some of them with the connivance of some staff in NITEL's mobile arm, were issued new lines with different names after dumping the former lines due to unpaid bills.

This analogue project was later abandoned due to high level of corruption which has eroded the vision of the policy setting it up. To ensure that more players were allowed to operate telephony services, the government established the Nigerian Communications Commission (NCC) backed by Decree 75 of 1992 to regulate the telecom industry. This allowed Private Telephony Operators (PTOs) to operate alongside NITEL. The PTOs licensed from 1996 to 2000 include companies such as Multi-Links, Mobitel, Intercellular and EMIS. These PTOs introduced mobile telephony using Time Division Multiple Access (TDMA) and Code Division Multiple Access (CDMA) technologies to drive cellular subscription to 100,000 lines (Soyinka, 2010). However, NITEL was still impeding fast growth by withholding the *E1* links which would have allowed the PTOs to connect to the national trunk and also interconnect to each other. Also the inability of the PTOs to expand beyond few cities forced the government to go into full deregulation (Osoimehin, Akinkoye and Olanmi, 2010).

Prior to 2001 GSM auction, the former government of late General Sani Abacha had issued about 30 licenses to companies to carry out GSM services in the country. The licenses were issued by the Abacha government by fiat without recourse to any market study and the licenses were mainly given to proxies and cronies of those in government during this period (Osoimehin, Akinkoye and Olanmi, 2010). Moreover, none of the recipient of the licenses had launched any network anywhere in the country. However, in 1999 when Nigerian transitioned to democratic rule under Olusegun Obasanjo, the government appointed and inaugurated new board of commissioners for the Nigerian Communications Commission. This cancelled the previous questionable GSM licenses and gave way for transparent process while asking the former recipient to apply afresh and participate in the new auction process (NCC, 2003).

Hence, between 1993 and 2001, the NCC granted licenses to private companies to provide services such as fixed wireless telephony, mobile services and fixed satellite, paging, payphone, internet and other value added services (VAS). There were some misgivings expressed by certain global operators in year 2000 when the Nigerian Communications Commission (NCC) announced to the world that Nigerian would auction some spectrums for GSM service. No operator from outside showed interest. NCC went ahead with the sale in January 2001. Before the auction, the NCC had carried out advertisements in the international media encouraging global players to come and open up the Nigerian telecom space. As far as the Nigerian regulator was concerned, the country was a bundle of opportunity, being the largest black nation deprived of mobile tele-connection for several decades. It was an untapped market. But this was met with a barrage of cynicism from operators like Vodacom which said it would never touch the Nigerian market even with a 10-metre pole (Ndukwe, 2009). Many international mobile operating companies were afraid to invest in Nigeria despite the return to full democracy and establishment of transparent institutions the NCC and other agencies to fight corruption. International mobile operators were afraid to come to Nigeria. This was due mainly to reports credited to telecom research agencies and the global financial institutions like the World Bank and the International Monetary Fund (IMF). They forecasted that in the Nigerian telecom sector, the average Nigerian cannot afford to own a mobile phone as the per capita income of the citizens was below the internationally recognized average and the daily income was below \$100 mark (NCC, 2002).

Based on this reports, the telecom researches agencies had forecasted that it would take 12 months for any operator to reach 100,000 subscribers, 3 years to connect 300,000 lines and 5 years to hit the half a million mark

subscription. This conservative report peddled to mobile operators about the market in Nigeria and other emerging markets put off many operators that would have entered the GSM auction. The course of Nigeria's telecom sector however changed in January 2001 with the auction for Global System for Mobile communications (GSM). This move liberalised the sector bringing in mobile operators like MTN Nigeria, Econet Wireless Nigeria (Now Aitel), the comatose MTEL, Globacom and Etisalat to operate digital mobile service. The GSM licensees paid \$285 million each to obtain the Digital Mobile Licence (DML).

This telecom auction which led to the revolution brought in a liberalised sector, stripping NITEL its monopoly and making the private telephone operators to sit up. The success of the licensing process attracted international praise from as far as the International Telecommunications Union (ITU) and Commonwealth Telecommunications Union (CTU) (Okereocha, 2008; Okafor and Imhonopi, 2012).

3.0 RESEARCH METHODOLOGY

3.1 RESEARCH DESIGN

The study adopted descriptive design. This combined survey (i.e. quantitative) and qualitative methods

3.2 THE STUDY AREA

The study is located in Ibadan metropolis, South Western Nigeria. A former capital of old Western region, Ibadan is like many cities in Nigeria that have been swelling with migration. There are eleven local councils that make up Ibadan metropolis, which are classified into Ibadan main city and less city areas. The current population is over 2.7 million, out of which approximately 1.2 million people have access to telecommunications services (Federal Republic of Nigeria Official Gazette, 2009; NCC, 2011). The rationale for selecting Ibadan as the study area lied in the fact that it is the third most populous town in Nigeria after Lagos and Kano. Since deregulation of the telecommunication sector was an effort to make public utility services available to people, it was necessary to examine the impact of the policy in a densely populated areas.

3.3 THE STUDY POPULATION AND SIZE

The study population comprised GSM subscribers, service providers, and officials of NCC and CPC. The GSM operators selected were Globacom, MTN, Airtel, Starcomm and Etisalat. The GSM service providers were purposively selected. The sample size is limited to 1600 respondents. This was drawn from subscribers across the designated study locations. These locations are divided into main city and less city. The main city/urban locations selected were Ibadan North LG (Mokola-Bodija axis), Ibadan North West LG (Eleyele-Onireke axis), Ibadan South East LG (Molete-Mapo axis) and Ibadan South West LG (Ring road-Challenge axis).

The less city locations selected were Ido LG (Apete-Akufo axis), Akinyele LGA (Ajibode- Moniya axis), Egbeda LG (Alakia- Egbeda town axis), and Lagelu LG (Igbo Elerin- Lalupon axis). The local governments were selected on the basis of simple random sampling (ballot), while study locations within each of the local governments were based on purposive. Thus, 800 subscribers were each selected from urban and rural locations. In other words, sample of 200 respondents were selected from each sub location/community.

Furthermore, ten (10) telecom officials were purposively selected for in-depth interview from the five GSM companies. Similarly, 16 respondents who were GSM services hawkers and 8 respondents who utilised GSM services for personal purposes were selected for interviews from rural and urban locations. Also, two (2) staff of the Nigerian Communications Commission (NCC) and two (2) staff of the Consumer Protection Council (CPC) served as key informants (i.e. KII).

The calculation for sample size as extracted from the work of Mason (1978) and Berenson and Levine (1998) is given below. The authors identified the following formula as suitable for research in social science while emphasizing 99% as the minimum value of 'z' in medical research.

$$n = \frac{z^2 p (1-p)}{e^2}$$

n= sample size; z= level of confidence; p= proportion of target population (i.e. GSM subscribers); e= permitted error

e= 0.02 constant; z= 1.96 at 95% confidence interval or 1.64 at 90% confidence interval;

p= Target population of GSM users in Ibadan

$$\frac{\text{Total population (both users and non users of GSM) resident in Ibadan}}{2700000} = \frac{1200000}{2700000} = 0.4$$

Hence, calculating at 90% confidence level: $\frac{1.64^2 * 0.4 (1-0.4)}{0.02^2} = 1614$.

The approximate sample size used for the study is 1600. The distribution of the sample size is based on the proportion of GSM subscribers in each of the selected LG areas. According to NCC (2011) data for Ibadan, each of the 8 LGs

had an approximate proportion 9.3% of the GSM subscribers in Ibadan. Hence, the distribution gave sample of 200 in each of the LG areas.

3.4 SAMPLING PROCEDURE

The sampling technique for this study involved multi stage sampling. This comprises purposive, simple random, cluster, convenience and quota sampling techniques. Purposive sampling was used in selecting the study area (Ibadan). Simple random was used to select the local government areas in the Main and Less cities in Ibadan. Cluster sampling was used to select strategic locations (i.e. Market, Secretariat and Motor Park) for the study.

Furthermore, convenience sampling was used to select subscribers in the study locations. The use of convenience sampling was largely due to the absence of sample frame in the designated study locations. The number of sample selected for survey in each location was based on quota sampling. This technique was also used to select population categories such as students, farmers, civil servants, market traders, and teachers and so on. Furthermore, purposive sampling was used to select respondents for IDIs and KIIs. In essence, triangulation of sampling techniques was utilised in selecting the sample size for this study.

3.5 METHOD AND INSTRUMENTS OF DATA COLLECTION

The method of data collection for this study involved quantitative and qualitative methods. Whereas the former was used to collect quantitative data, the latter was used to collect qualitative data. Furthermore, the study utilised both primary and secondary sources of data collection. The instruments for data collection comprised questionnaire, in-depth interviews (IDIs), and Key Informant Interview (KII). The instruments were designed to address the six objectives of the study. Questionnaire was applied on the GSM subscribers, while IDIs was used for Telecom Officials and GSM hawkers. KII was used for the officials of NCC and CPC1.

3.6 METHOD OF DATA ANALYSIS

The method of data analysis involved quantitative and qualitative methods. Quantitative method is based on univariate and bivariate analyses. The univariate analysis which is purely descriptive utilised frequency counts and percentages to present the data. Bivariate analysis involves cross tabulation and the use of inferential statistics such as Chi-square test to establish association between variables. All these were processed through Statistical Package for Social Sciences (SPSS) (17.0 Version). For qualitative data, raw data from in-depth interviews were transcribed, sorted and labeled. However, verbatim quotations, ethnographic summaries and content analysis were used for analysis and also to highlight the subject matter under discussion. In all, both quantitative and qualitative analysis complemented each other.

3.7 ETHICAL CONSIDERATION

The consent of the prospective respondents was sought and obtained through social interaction and familiarities before the study instruments were applied on them including recording their voices on electronic devices. Hence, the empirical survey and observation in the study was overt. In addition, as regards GSM providers in the study areas, authorization was sought from the top management. Consequently, approval for data collection was issued from the head quarter office in Lagos.

4.0 PRESENTATION OF FINDINGS

This section presents and discusses the analysis of quantitative and qualitative data collected in the course of fieldwork.

4.1 SOCIO-ECONOMIC AND DEMOGRAPHIC CHARACTERISTICS

Results of socio-economic and demographic characteristics of the respondents as presented on the table 4.1.1 showed that male respondents represented 45.6%, while females constituted 54.4%. Although there were differences in the proportion of male and female, both sexes were utilizing GSM mobile services. Also, most respondents (36.4%) fell within 16 to 20 years, while the least (5.3%) fell within 51 years and above.

An inference that could be drawn here is that GSM appears to be very popular with the youths who may be inclined to experiment with new technology (Al-Shallah and Haddad 2006). The marital status of respondents showed that 65.1% were single, 31.6% were married and 6.1% divorced. This goes to reinforce the fact that most people who participated in this study were young people who may not have much of family responsibilities. Furthermore, the educational status of the respondents showed that most respondents were very literate having one form of *educational* qualification or the other (96.4%), while only 0.4% had no formal education. This is not surprising as the study was conducted in Ibadan where literate rate is high (Agbaje, 2002) and also operating GSM requires minimal level of formal education. Moreover, the religious affiliation of the respondents showed that those that professed to be Christian constituted 76.0%, Muslims constituted 23.8% and Traditional Worshippers constituted only 0.3%. Sociologically speaking, religion is very important because it shapes people's attitude and behaviour towards certain innovations.

¹ Data from NCC and CPC was collected in Abuja, the head quarter office. This is due to bureaucratic factor that limited the capacity of regional offices of those agencies to supply the needed information.

The *income* distribution of the respondents shows that most of them (45.7%) were living on less than income of NGN10,000 per month, while only 3.7% were earning NGN90000 and above and 3.3% had no source of income. It could be inferred from the income distribution above that most respondents that participated in this study were people of limited means of income and some had no source of income at all. It is expected that this will impact on how they utilize and maintain their GSM services (Waverman and Fuss, 2005; National Bureau of Statistics, 2011). A respondent with very little income said:

Since I bought my GSM phone two years ago, I buy credit card once or twice in a month. I use to buy NGN100 recharge cards twice a month. I don't use to call on

my personal GSM phone because of the high tariff. I used commercial centres. I don't have a stable income. Sometimes I do not even have hope of feeding on two meals per day. I am seriously looking for job that pays regular income. But I must use this phone to remain in contact if I must get a good job because most employers nowadays will expect you to have a functional phone number and e-mail address for easy contact (IDI/GSM Subscriber/Lagelu LG/2011).

From the above assertion, it is evident that some respondents are using GSM services not out of buoyancy but out of necessity of remaining in contact with others, hoping that doing so will yield positive results (Kareem, Olaewe and Odeniyi, 2008).

TABLE 4.1.1: DISTRIBUTION OF RESPONDENTS BY SOCIO-ECONOMIC AND DEMOGRAPHIC CHARACTERISTICS

Sex	Frequency	Percentage
Male	730	45.6
Female	870	54.4
Total	1600	100.0
Age range	Frequency	Percentage
16-20	582	36.4
21-25	172	10.8
26-30	345	21.6
31-35	124	7.8
36-40	112	7.0
41-45	81	5.1
46-50	100	6.3
51 and above	84	5.3
Total	1600	100.0
Marital status	Frequency	Percentage
Single	1042	65.1
Married	506	31.6
Separated	5	0.3
Divorced	14	0.9
Widowed	1	0.1
Others	32	2.0
Total	1600	100.0
Education	Frequency	Percentage
No education	7	0.4
Primary school	85	5.3
Post primary	584	36.5
OND/NCE	397	24.8
HND	192	12.0
B.Sc	150	9.4
Masters	146	9.1
PhD	39	2.4
Total	1600	100.0
Religious affiliation	Frequency	Percentage
African traditional religion	4	0.3
Islam	380	23.8
Christianity	1216	76.0
No religious affiliation	0	0.0
Total	1600	100.0
Monthly income	Frequency	Percentage
No source of income	52	3.3
Less than 10,000	731	45.7
10001-30000	386	24.1
30001-50000	170	10.6
50001-70000	112	7.0
70001-90000	91	5.7
90001-110000	28	1.8
110001 and above	30	1.9
Total	1600	100.0
Occupation	Frequency	Percentage
Government ministries employees	157	9.8
Corporate service employees	225	14.1
Self employed	199	12.4
Teachers	210	13.1
Lecturers	30	1.9
House wife	8	0.5
Unemployed	34	2.1
Students	300	18.8
Other occupations	437	27.3
Total	1600	100.0
Ethnic origin	Frequency	Percentage
Yoruba	1293	80.8
Hausa	48	3.0
Igbo	170	10.6
Other ethnic group	89	5.6
Total	1600	100.0

Source: Field Survey, 2011

The distribution of *occupation* shows that respondents were engaged in various occupational activities such as *corporate* employees (14.1%), *civil* service (9.8%), *self* employed (12.4%), *teaching* and *lecturing* (15.0%), other occupations (such as *farmers, artisans, business* men and women) (27.3%). Also, *housewives, students* and *unemployed* constituted 21.4%. Although these in the real sense do not constitute occupations, however, this category of people usually earn allowances and could not be excluded from this important study because their utilisation or non utilisation of GSM services has sociological significance. Findings also showed that most respondents who participated in the study were *Yoruba* (80.8%), others included *Igbo* (10.6%) and *Hausa* (3.0%), and other ethnic groups such as *Itshekiri, Ijaw, Urhobo, Ibirra,* and *Tiv* collectively constituted (5.6%). The predominance of those respondents from Yoruba ethnic group is based on the fact the study was

conducted in Yoruba speaking area. Also, the presence of other ethnic groups indicates the cosmopolitan nature of Ibadan city (Agbaje, 2002).

4.2 REGULATORY AND STATUTORY POLICIES OF GSM SERVICE PROVISIONS

Although deregulation implies the removal of state bureaucratic bottleneck to enhance active participation of private firms in rendering some basic services to the members of the public, nevertheless to ensure that sanity and best international practices are entrenched there are regulatory bodies put in place by government to achieve this. The investigation into the respondents' knowledge of the Nigerian Communications Commission (NCC) as a regulatory

agency as presented on the table 4.7.1 shows that 87.3% had knowledge of the Commission as regulatory body, while 12.7% had no knowledge of the Commission. Also, most respondents (61.9%) knew about the existence of Consumer Protection Council (CPC), while 38.1% had no knowledge about the existence of the consumer Council.

The implication of the findings above is that most subscribers in the study areas knew about the NCC more than the CPC. The difference noticed may be in terms of the operation of the body, their activities and the level of awareness they may have created in the media. This gap was notable in the Less city local government areas. At the time of conducting this study, 92.9% of the respondents claimed that they had registered their GSM lines, while

7.1% were yet to be registered. This high percentage of subscribers that had registered their lines is as a result of the importance these subscribers attached to the services they are deriving from the service providers as well as the aggressive and sustained media enlightenment embarked by the NCC.

Furthermore, when respondents were asked to comment on the effectiveness of NCC in carrying out its statutory roles, 68.0% said NCC was very effective in regulating the activities of GSM providers, while 32.0% said the Commission was not effective. Similarly, 32.8% of the respondents indicated that CPC was effective in protecting GSM subscribers, while 67.2% said the Council was not effective.

TABLE 4.2.1: DISTRIBUTION OF RESPONDENTS BY THE REGULATORY POLICIES OF GSM SERVICES

I have Knowledge of NCC as regulatory body	Frequency	Percentage
No	203	12.7
Yes	1397	87.3
Total	1600	100.0
I have Knowledge of CPC as agency of consumer protection	Frequency	Percentage
No	609	38.1
Yes	991	61.9
Total	1600	100.0
Registered subscribers	Frequency	Percentage
Not yet registered	114	7.1
I have registered	1486	92.9
Total	1600	100.0
CPC is effective in protecting subscribers	Frequency	Percentage
No	1075	67.2
Yes	525	32.8
NCC is effective in protecting subscribers	Frequency	Percentage
No	512	32.0
Yes	1088	68.0
Total	1600	100.0

Source: Field Survey, 2011

As a follow up to the above question, a fifty-four year old male respondent who had been connected to GSM services for more than eight years and who was also dissatisfied with the activities of the regulatory agencies asserted:

NCC regulation is not effective. The body is not thoroughly checking the service providers on the need for qualitative service delivery. Network is still very bad and unstable. SIM card registration may not address the issue of fraud in the sector because people still utilize their GSM lines without registration. NCC must improve on its present regulation of GSM market and compel the service providers to reduce tariff charges instead of doing one promotion or the other. The poor services subscribers are getting do not commensurate with high tariffs charged by the operators (IDI/GSM Subscriber/civil servant/Ibadan North West LG/2011).

It can be deduced from the responses above that the incidences of high tariff charges, network failure, and unregulated uses of GSM to perpetrate frauds are some of the reasons why subscribers resent the roles played by NCC and CPC. However, when NCC was consulted to investigate its statutory activities since the deregulation of the telecommunications sector, the comments made by the Director in the Commission were rather evasive and defensive. He said:

We are doing our best from this end and as you know it wasn't like this about ten years ago. It is getting better. It may interest you to know that one of the toughest decisions that can be taken by any mobile phone user in Nigeria today will be to discard a line because the user is not enjoying the best quality of service from the operator. It becomes more difficult if you have been using the line for more than five or six years and it is your officially recognised line by business associates, family and friends both at home and abroad. But is it possible to change your service provider and still retain your number for the new service? The common cliché goes: you cannot eat your cake and have it. But this definitely is not the case with Mobile Number Portability (MNP). Of course, with mobile number portability, you can eat your cake and still have it, which means that you can change your service provider without changing your number. The above scenarios underscore the vitality and desirability of MNP to enhance service quality and promote healthy competition among telecom operators in Nigeria (KII/NCC Official/Abuja/2012).

From the responses above it is obvious that NCC may have initiated some policies to salvage and enhance the provision of GSM services in Nigeria, however for most subscribers this may not amount to much until they see real improvements in the quality of services provided by the operators as well as tariff charges slashed. This suggests that the level of effectiveness of the

Commission in the perception of the subscribers is low in the study areas.

However, the recent events in the activities of NCC have shown that the agency is gradually living up to the expectation in the attempt to sanitise the sector. For instance, the Commission has impounded some pre-registered SIM cards sold to members of the public because of the dangers involved in it (NCC, 2012). This is to prevent the tendency of their users to use them to commit crime and other clandestine activities. To buttress the readiness of NCC to effectively regulate the provision of GSM services, a statement made available on the Commission's website read thus:

NCC has sanctioned MTN, Etisalat, Airtel and Globacom for poor Quality of Service (QoS) rendered in the months of March and April. Details of the penalties had been communicated to the different operators through letters. MTN and Etisalat are to pay N360m each, Airtel would pay N270m, while Globacom attracted a penalty of N180m. All the operators are to pay the penalties on or before May 21, 2012 or be liable to payment of additional N2.5 million per day for as long as the contravention persists. The penalties are as a result of the contravention of the provisions of QoS Regulation by the NCC. The operators failed to meet with the minimum standard of quality of service, including the key performance indicators. The commission has been monitoring the performance of the operators on the different parameters as provided. The result showed that the service providers contravened the provisions. Paragraph 13 & Schedule 3, Paragraph 2 of the Quality of Service Regulation 2012, provides that any company which contravenes this provision will be liable to pay fine. The company is liable to pay the sum of N15m for each parameter for a service contravened in the month of March, 2012. A further sum of N2.5m for each parameter for a service for each day the contravention continued throughout the month of April, 2012 will be paid by the operators. NCC noted that the performances in January and February were below the specified thresholds but decided to take these periods as grace period (www.ncc/news.gov.ng/2012).

It can be inferred from the findings above that the Commission recognises the spate of incessant network failures in the provision of GSM services. Also, the Commission recognises the need to protect consumers who are users of GSM services. And finally, the Commission is concerned with the provision of satisfactory services to the consumers in order to ensure principle of equity. That is to ensure that subscribers get value for their money.

Furthermore, insight was provided into the role of CPC in the provision of GSM services. Hence, when an official of CPC was asked to comment on the activities of the Council to protect consumers, his views were expressed thus:

CPC is very relevant in the GSM market. Complaint lodge to the council is acted upon for result. There is no duplication in the duties and functions of CPC and NCC. CPC is on the consumption side, while NCC is on production. However, very few GSM subscribers have complained to the Council in the last five years (KII/CPC Official/Abuja/2012).

The implication from the responses above is that CPC has remained largely unknown to the subscribers and other consumers despite the rip off most subscribers are undergoing in the hand of telecom operators in Nigeria. This may be as a result of lack of enlightenment and awareness on the part of the body.

4.3 TEST OF HYPOTHESES

The focus in this section is to test the hypothesis formulated in the course of the study using Chi square test. This helps to explain the link between independent and dependent variables.

Hypothesis One

H1: There is association between subscribers' perception of GSM tariffs and their perceived effectiveness of Nigerian Communications Commission.

Ho: There is no association between subscribers' perception of GSM tariffs and their perceived effectiveness of Nigerian Communications Commission.

The hypothesis four above was tested by cross tabulating questions 063 and 081 in the questionnaire to produce the result in the table below.

TABLE 4.3.1: CHI SQUARE TEST OF ASSOCIATION BETWEEN RESPONDENTS' PERCEPTION OF GSM TARIFF AND EFFECTIVENESS OF NCC

Perception of cost of GSM tariff	Perception on effectiveness of NCC		
	Not effective	Effective	Total
Very cheap	21(1.3%)	72 (4.5%)	93 (5.8%)
Cheap	171 (10.7%)	384 (24.0%)	555 (34.7%)
Expensive	243 (15.2%)	473 (29.6%)	716 (44.8%)
Very expensive	77 (4.8%)	159 (9.9%)	236 (14.8%)
Total	512 (32.0%)	1088 (68.0%)	1600 (100.0%)

Calculated chi square: 5.432; df: 3; probability value 0.143

Source: Field Survey 2011

The Chi square result as presented on the table above shows that there is no association between respondents' perception of GSM tariffs and their perception of effectiveness of Nigerian Communications Commission (NCC) i.e. ($\chi^2 P > 0.05$). From the table above, it could be observed that most respondents felt that NCC was effective and also most of them felt that GSM tariff was expensive. However, it could be inferred that most respondents are aware that NCC has no mandate to regulate GSM tariffs; rather tariff under the present dispensation is regulated through price mechanism and competition. Reaffirming this, an official of service provider said:

NCC has no mandate to determine GSM tariffs charged to the consumers. Their major role is to license operators and ensure that quality services are provided to the subscribers. Also, it regulates the boundary of charges in interconnectivity. No service provider can charge beyond the stipulated maximum. We determine what we charge within the intraconnectivity, not the NCC. Market competition plays significant impact in determining tariffs service providers charge their subscribers (IDI/Starcomm Official/Ibadan/2011).

It is obvious from the above views that the power of NCC to determine prices is limited, while respondents continued to experience instability in the services provided by GSM operators. Notwithstanding the limitation of NCC to determine prices, the agency could mediate to protect the interest of subscribers.

5.3 RECOMMENDATIONS

1. Deregulation of the telecommunications in Nigeria is marked as either beneficial or wasteful. This is strongly connected to mixed feelings expressed by people on the basis of satisfaction and dissatisfaction with the operation of mobile service providers. Therefore, it is strongly recommended that the role of NCC and CPC is further strengthened to check irregularities in the deregulated economy.
2. It is documented that the utilization of GSM technology offered enormous benefits to users, yet there are several challenges that constrained the utilization of GSM communication. Hence, in order to reduce the problem inherent in the utilization to barest minimum, there is need for NCC to collaborate with media professional, security agents and federal road safety commission (FRSC) to educate consumers. The collaboration should also involve GSM mobile service providers and every stakeholder in the telecommunications sector.

REFERENCES

1. Acton, J P. and Vogelsang, I., 1989. "The Price-Cap Regulation: Introduction". *Rand Journal of Economics*, 20(3), autumn, 369-72.
2. Adegoke, A.S., Babalola, I.T. and Balogun, W.A., 2008. "Performance Evaluation of GSM Mobile System in Nigeria". *Pacific Journal of Science and Technology*. 9(2):436-441
3. Ahmad, A. 2007. Technology Adoption Life Cycle Model and Market Share of Global System for Mobile Communication (GSM) Firms in Nigerian: An Appraisal. *Journal of League of Researchers in Nigeria* (8:2), December, pp. 89-95.
4. Ajala, I., 2005. *GIS and GSM network quality monitoring: A Nigerian case study*. Available at: <http://www.directionsmag.com/article>
5. Bakare, A. S. and Gold, K. L. 2011. Estimating the impacts of global system for mobile telecommunication (GSM) on income, employment and transaction cost in Nigeria. *Journal of Economics and International Finance* Vol. 3(1), January. pp. 37-45 <http://www.academicjournals.org>
6. Boyland, O. and Giuseppe, N., 2000. "Regulation, Market Structure and Performance in Telecommunications." Economics Department Working Paper No. 237, Organization for Economic Cooperation and Development: Paris.
7. Durkheim, E., 1897. *Suicide*. In Bernard, A., Burgess, T., and Kirby, M., 2010. *AS Level and A Level Sociology* 7th edition. Cambridge University Press
8. Gary, C.M. and Izak, B., 2001. Development of an Instrument to Measure the Perceptions of adopting information Technology Innovation. The Institute of Management Sciences, Information Systems Research. Oxford.
9. Hausmann-Muela, S., 2003. Health-seeking behaviour and the health system response. Disease Control Priorities Programme (DCPP) Working Paper No. 14. Switzerland
10. ITU. 2011a. Trends in Telecommunication Reform, Convergence, and Regulation. Retrieved from <http://www.itu.int/itudoc/itu-d/trends99>.
11. ITU, 2011b. World Telecommunications Development Report. <http://www.itu.int/itud/ict/publications/wtdr-99>.
12. Iyoha, M. A., 2000. Fiscal Federalism, Decentralization and Macroeconomic Management in Nigeria. Policy Analysis Series 5 (2).
13. Jerome, A., 2008. "Privatization and Enterprise Performance in Nigeria: Case study of some Privatized Enterprises". AERC Research paper 175, African Economic Research Consortium Nairobi.
14. Johnsen, T. E., 2003. The Social Context of the Mobile Phone use of Norwegian teens. In J. E. Katz (Ed), *Machines that become us: The social context of communication technology*, Transaction Publishers, Brunswick, New Jersey
15. Kareem, A.E.A., Olaewe, O.O. and Odeniyi, O.A., 2008. The Roles of ICT in Information Processing and National Development in Nigeria. *The Pacific Journal of Science and Technology* Volume 9. Number 1. May-June Spring
16. Li, W. and Lixin, C.X., 2001. "Liberalization and Performance in the Telecommunication Sector around the World: Is Privatization Sufficient?" Mimeo, the World Bank.
17. Mason, R., 1978. *Basic Business Statistics*. 9th Edition.
18. McTigue, M.P., 1996. "Lessons for Telecommunications Deregulation from the New Zealand Experience". Nigeria, Oxford Book.
19. National Bureau of Statistics. 2011. Poverty profile for Nigeria. Abuja, Nigeria: National Bureau of Statistics, Federal Republic of Nigeria.
20. Ndukwe, E., 2003. The Role of Telecommunications in National development. 19th Omolayole Annual Management Lecture. December 5, Victoria-Island, Lagos, Nigeria.
21. Nigerian Communications Commission. 2010. "A Quality of Service Performance Survey of GSM Providers in Nigeria". Computer.com: The ICT Newspaper. February 2010. ----- 2011. Subscriber data. Available at: <http://www.ncc.gov.ng.htm>.
22. Ogunbodede, E.F., 2010. Cell Phone Usage and Travel Behaviour in Ondo State, Nigeria. *Journal of Mobile Communication* Volume: 4 Issue: 3, P. 68-74
23. Okafor, E.E., 2009. "Privatization and deregulation: the gains and the loses". In, *A Decade of Redemocratization in Nigeria (1999-2009)*. Ed. Sarafa I., Ogundiya, Olutayo O., and Jimoh A. *International Journal of Middle East Studies*, 23:163-76.
24. Park, W. K., 2005. Mobile Phone Addiction. In L. Rich and P. E. Pedersen (Eds.), *Mobile Communications: Re-negotiation of the social sphere*, Springer, London, UK.
25. Ritzer, G., 2008. *Sociological theory*. 7th edition, McGraw-Hill.

26. Robert K. 2000. *After Hegemony: Cooperation and Discord in the World Political Economy*, Princeton: Princeton University Press
27. Sader, F., 1995. *Privatizing Public Enterprises and Foreign Investment in Developing Countries, 1988-93*. Foreign Investment Advisory Service (FIAS) Occasional Paper. Washington, D. C.: International Finance Corporation and the World Bank.
28. Taylor, A. S. and Harper, R., 2001. *Talking Activity: Young People and Mobile Phone*, CHI 2001 workshop: Mobile Communication, Understanding users, adoption and design, Seattle.
29. Waverman, M. and Fuss, A., 2005. *The Impact of Telecoms on Economic Growth in Developing Countries, Africa: The Impact of Mobile Phones*, Vodafone Policy Paper Series 2, March
30. Wei, R., 2001. 'From luxury to utility: a longitudinal analysis of cell phone laggards', *Journalism and Mass Communication Quarterly*, Vol. 78, No. 4, pp.702-719.
31. Yuji, S., 2009. *How to Measure Human Perception in Survey Questionnaires*. *International Journal of the Analytic Hierarchy Process*, Vol 1, No 2