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THE ROLE OF GOVERNMENT IN THE NIGERIAN MOBILE TELECOMMUNICATIONS INDUSTRY: A FOCUS ON CYBERCRIME AND MOBILE BROADBAND POLICIES

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A research report submitted to the Faculty of Commerce, Law and Management, University of the Witwatersrand, Johannesburg, in fulfilment of the requirements for the degree of Masters of Management by Dissertation (MM-D).

October, 2016

DECLARATION

I, Isioma Ruby obi, hereby declare that this research work is my own work except as indicated in the references. This research study is submitted in fulfilment of the requirements for the degree of Masters of Management by Dissertation (MM-D). This research work has not been submitted before for any degree at this or any other university or higher learning institution.

…….

Isioma Ruby Obi

Signed at: University of the Witwatersrand

On October, 2016

DEDICATION

This research study is dedicated to God Almighty whose mercy is responsible for all my accomplishments from inception till date.

I also dedicate this research study to my mother, Ifeyinwa Kene Izegbu, who is my muse and a constant pillar of strength at every turn.

Lastly, I dedicate this study to my aunt and best friend, Adaobi Iwenofu, whose words and mere existence have been a continuous source of joy and encouragement.

ACKNOWLEDGEMENT

My utmost acknowledgement goes to my Research Supervisor, Professor Pundy Pillay, whose remarks and constructive suggestions made this study a success.

I would also like to thank all the research participants of this study who shared their wealth of knowledge about the Nigerian Mobile Telecommunications Industry and by so doing, aided the successful completion of this research study.

ABSTRACT

The role played by a governing authority is crucial to the long term survival and development of its governed unit, irrespective of the size and function of the said unit. In the event that a government fails to protect the interests of its governed, a state of wide-spread dissatisfaction and palpable frustration becomes inevitable.

Through the application of an Interpretive Research Paradigm, this study assessed the role of the Nigerian government in one of the country's most promising industries; The Mobile Telecommunications Industry. The study aimed to expose the predominant role of the Nigerian government in this industry with a focus on the relevant issues of Cybercrime and Mobile Broadband. This research enquiry applied the Qualitative Research Approach. As such, the researcher analyzed relevant policy documents on telecommunications and elicited the expert opinions of key industry players. In all, 18 industry representatives were questioned about the happenings in the Mobile Telecommunications Industry. The interview respondents for this research study included representatives of the Ministry of Communications, individuals within the Nigerian Communications Commission, and Mobile Telecommunications service providers/operators. To further validate the information gathered from these individuals, various industry reports were also examined.

After a thorough analysis of the research data gathered from multiple sources, the conclusion drawn by this study was that the Nigerian government has failed to do what is necessary to ensure the long-term growth and development of the country's Mobile Telecommunications Industry. The study proved that the government has constantly taken a somewhat lackadaisical stance with regard to the implementation of the policies and initiatives governing the industry and has subsequently given no explanations or justifications for its actions, or more appropriately, inactions.

Conclusively, this research study recommended that the governing environment of the Nigerian Mobile Telecommunications Industry be restructured to include a government that not only formulates telecoms development strategies and expansion initiatives, but also executes these plans whilst maintaining an unwavering accountability for its actions and decisions.

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CHAPTER ONE

INTRODUCTION

This chapter presents the background to the study, the problem statement, and the purpose statement. The overarching research question of this study is also presented here, and its corresponding sub-questions are revealed.

Every economic sector is an essential component of a much larger organism which is the country within which it operates. As is the case with most interdependent relationships, neither the sectors nor the country can function effectively without the presence of its counterpart. The sectors need to be properly regulated by the governing authorities within the country for them to operate at maximum efficiency, and the country in turn, requires certain resources from these sectors to remain functional. These resources could range from food from the agricultural sector, to the much needed enlightenment from the education sector. The revenue obtained from these sectors in the form of taxes also goes a long way in contributing to the development of the country. Nevertheless, instances occur where one party is visibly the only recipient of the benefits attributed to such a relationship. Often at times, governments become accustomed to the benefits that come with overseeing a sector or an industry and completely ignore the fact that they also have a crucial part to play in ensuring its long term progress. When this happens, the ultimate role of the government and the overall regulatory environment as fair mechanisms for ensuring sustainability and progress can be questioned.

1.1. Background to the Study

Huurdeman (2003) described telecommunications as a technology that eliminates the obstacles posed by distance in communications between people, between countries, and between continents. He explained that this technology reduces the time required to transport messages; it accelerates business transactions, and also improves human relationships. In Nigeria, a country with a land area of 923,768 km^2 and a population of over 183 million, telecommunications has fulfilled all these roles. The growth of the Nigerian telecommunications sector has immensely improved the process of communication amongst citizens and has created a substantial number of employment opportunities within the country (Adomi, 2005).

1.1.1. The History of the Nigerian Mobile Telecommunications Industry

The Mobile Communications industry in Nigeria has witnessed radical changes since the colonial era. According to Adomi (2005), the first telecommunications facilities in Nigeria were established by the British colonial administration in 1886. These facilities, which included telephones and telegraphs, were exclusively geared towards linking the administration and the British mercantile and shipping firms with the home government in London. In an attempt to monitor the operations of these facilities, a Department of Posts and Telecommunications (P&T) was also set up by the colonial powers (Akwule, 1991). In 1960, Nigeria gained its independence and began operating without any interference from international bodies. The Department of Posts and Telecommunications (P&T), under the supervision of the Ministry of Communications, handled the country's internal telecommunications and postal services in the years following independence, while the government-created Nigerian External Telecommunications (NET) took control of the country's international telecommunications by acquiring the UK-based enterprise, Cable & Wireless (Akwule, 1991). Regardless of this, the country's newly acquired independence failed to bring about immediate universal access of the available communication facilities.

In an analysis of post-colonial African states, McCormick (2005) suggested that the exploitative and authoritarian structure exhibited by colonial administrations seemed to have been transferred to the local political elites upon being liberated. This was indeed true of the Nigerian government. According to Onwumechili (2001), the major goal of the Nigerian government at independence was to ensure that adequate telephone services were provided solely for the administration of the country. However, with the introduction of the country's First National Development Plan, this goal was later expanded to include telecommunications growth in major urban commercial and industrial cities. According to Akwule (1991), the First National Development Plan, which lasted for a period of seven years (1962 to 1968), produced only about 22,000 new telephones lines, resulting in a total of 48,900 installed lines for the entire country, with most of these lines being installed in the urban areas. Akwule (1991) explained that the disappointing outcome of this development plan was largely due to the military coup the country experienced in 1966 and the subsequent civil war which took place from 1967 to 1970. Subsequently, three National Development Plans were introduced covering the years 1970 through 1985. These plans aimed at, inter alia, re-building war-damaged telecommunications

facilities and further expanding the telecommunications network of the country (Akwule, 1991; Onwumechili, 2001).

In 1985, the Nigerian telecommunications environment was completely restructured. The Department of Posts and Telecommunications (P&T) was split up in order to separate the management of the postal services from that of telecommunications services. The postal division was reconstituted as the Nigerian Postal Service (NIPOST), while the telecommunications arm of the department was merged with NET to form a limited liability company called Nigerian Telecommunications Limited (NITEL). According to Akwule (1991), this reorganization came about as a result of the pressure on the Nigerian government from within the country to provide better telecommunications services, along with the pressure from the international community to modernize its networks and reflect current global trends.

The newly established NITEL operated as a government-owned monopoly and its policies were subject to review and approval by its government-appointed board of directors (Akwule, 1991). Ajiboye, Adu, and Wojuade (2007) noted that with the creation of NITEL, the government sought to harmonize the planning and coordination of the internal and external telecommunications services, rationalize investments in telecommunications development, and provide accessible, efficient, and affordable services.

Some of these goals however, were not entirely met by the government owned enterprise. In an attempt to generate funds and cover the huge financial losses suffered as a result of the decline in the value of the national currency, the Naira, NITEL revised the country's telecommunications tariff structures and introduced an aggressive telephone bill programme in 1988 (Akwule, 1991). According to Onwumechili (2001), the change in tariff structures resulted in a 600% rate increase for international calls, and an 800% increase in domestic calls two years later.

Akwule (1991) noted that critics of NITEL's policies explicitly opined that these increments did more harm than good as they rendered telephone services unaffordable for the majority of Nigerians. Oyebisi, Olamade, and Agboola (2004) further explained that the shortcomings of NITEL pressured the Nigerian government into deregulating the telecommunications sector. This was achieved through the promulgation of Decree 75 of 1992 which established the Nigerian Communications Commission (NCC). According to the Nigerian Communications Act of 2003, the functions of NCC include facilitating investments in and entry into the Nigerian market for

the provision and supply of communications services, equipment and facilities, promoting fair competition in the communications industry, protecting and promoting the interests of consumers against unfair practices, and granting and renewing communications licences.

In September 2001, the Global System for Mobile Communications (GSM) was introduced. In the same year, NCC issued four wireless licences to different GSM providers namely, MTN Nigeria Communication, Econet Wireless Nigeria Limited, Communication Investment Limited (CIL), and Nigerian Mobile Telecommunications Limited (M-Tel, the mobile subsidiary of the national carrier, NITEL) (Adomi, 2005). In September 2002, another GSM service provider, Globacom Limited, was issued a licence and began its operations in August, 2003. The last entrant to the Mobile Communications industry was Emerging Markets Telecommunications Services Ltd (Etisalat), which began its operations in October, 2008. Currently, the four operational mobile communications companies in Nigeria are MTN Nigeria, Airtel Nigeria (formerly Econet), Globacom Limited, and Etisalat Nigeria.

1.1.2. The Framework and Governance Structure of the Nigerian Mobile Telecommunications Industry

According to Popoola, Megbowon, and Adeloye (2009), the main players in the Nigerian telecommunications sector include the Federal Government of Nigeria (FGN), the Ministry of Communications, the Nigerian Communications Commission (NCC), and the telecommunications services providers.

Whilst the Federal Government sets the overall direction for the sector's development by formulating broad policies, the Ministry of Communications is responsible for the implementation of these policies. The NCC, which serves as the independent regulatory body, regulates the activities of the telecommunications services providers or licensees and ensures that these activities are in line with all stipulated government policies. The Commission constantly prides itself on accomplishing its set objectives and releases quarterly Compliance Monitoring and Enforcement reports in which it communicates its regulatory activities to the general public.

The independent regulatory body, NCC, in its report covering the fourth quarter of 2014, explained how it sanctioned MTN Nigeria, one of the dominant operators in the Nigerian

telecoms market, for charging its subscribers below the stipulated Mobile Termination Rate (MTR) (Nigerian Communications Commission [NCC], 2014). A similar sanction was made on the same mobile communications company again at the end of the second quarter of 2015. This time, the company was made to pay a total sum of five million naira for its non-compliance with the stipulated MTR, and its unethical practices (Nigerian Communications Commission [NCC], 2015). Airtel Nigeria, another dominant mobile communications company in the country, also came under pressure from NCC at the end of the second quarter of 2015. The Commission, upon being inundated with consumer complaints regarding unsolicited messages from the mobile network outside the 8am to 8pm approved time window, issued a directive that all such messages should cease, and the corresponding complainants be put on the 'do-not-disturb' list (NCC, 2015). In doing this, the Commission protected the interests of the bulk of the network's consumers and once again, averted an infringement on consumer rights.

The latest attempt by NCC to protect the welfare of the public and the nation at large came in October 2015, when the independent regulatory body fined MTN Nigeria a total sum of US $5.2 billion (N1.4 trillion) for failing to deactivate unregistered mobile phone lines on its network. According to Ishiuzo (2015), the regulator claimed that the seemingly drastic action was taken in response to the mobile operator continuously undermining the government's ability to tackle security challenges within the country.

Irrespective of the progress reports published by the Nigerian government on its efforts to ensure ethical telecommunications practices, the Global Information Technology Report, an international report released annually by the World Economic Forum, showed a significant decline in the effectiveness of the Nigerian government in relation to its overall information and communication technology regulations between the years 2010 and 2014.

In its analysis of the "Effectiveness of Law-Making Bodies" of 142 countries between 2010 and 2011, the global report placed Nigeria at the value of 3.4. A value of 7 would indicate that a country's law-making bodies are very effective and among the best in the world, while a value of 1, would connote absolute ineffectiveness (Dutta & Bilbao-Osorio, 2012). The report covering the years 2011 and 2012 showed a slight improvement as the country attained the mean value of 3.6 (Bilbao-Osorio, Dutta, & Lanvin, 2013). This improvement however, was short-lived as the

country's statistics plunged in the years to come. Between 2012 and 2013, Nigeria was placed at a value of 3.3 (Bilbao-Osorio, Dutta, & Lanvin, 2014), and it then went on to earn a further depreciated value of 3.0 between 2013 and 2014, thereby reaching the rank of 107 out of a total of 143 countries (Dutta, Geiger, & Lanvin, 2015).

From these reports, it is clear that the effectiveness of the Nigerian law-making bodies dropped drastically within the short space of four years. At this rate, the expectation would be for the country's government to fall into the bottom 20 countries over the next five years. In their report, Kramer, Jenkins, and Katz (2007) stated that, amongst other factors such as technical literacy, consistent power, and functional markets, information and communication technology companies in general require supportive regulatory and policy frameworks if they are to fulfil their potential and aid economic growth. This reality should be considered by the Nigerian government if it is to ensure that telecommunications as a whole consistently contributes to economic growth and development.

While the Nigerian government would have the public believe that it is doing all it can to ensure best practices within the telecommunications sector and thus promote the sector's growth, statistics from the Global IT Reports have shown that this, in fact, may not be the case. Regardless of the fact that the government may have enabled the different stakeholders of the Nigerian mobile communications industry to overcome various developmental hurdles, its ineffective legislative and regulatory structures evidently cannot be denied, least of all, ignored.

1.1.3. The Emerging Issues of Cybercrime and Mobile Broadband

The issues of Mobile Broadband and Cybercrime are relatively new operational issues which have generated great concern within the global telecommunications space in recent years.

1.1.3.1. Mobile Broadband

According to the International Telecommunication Union [ITU] (2011), the single most dynamic ICT development in 2010 was the surge in mobile broadband subscriptions. Bold and Davidson (2012) described Mobile Broadband as the use of any mobile (or cellular) technology to deliver data to end-users. ITU (2011) explained that, up until 2005, fixed broadband was the exclusive means of access for high-speed Internet connection. However, by 2008, the number of active mobile broadband subscriptions overtook the number of fixed broadband subscriptions for the first time and by the end of 2010, more than 150 economies had launched mobile broadband networks. By the end of 2011, the International Telecommunication Union [ITU] (2012) recorded over 1 billion mobile broadband subscriptions worldwide.

According to Bornman (2012) this "mobile miracle" was also evident in the developing world, and particularly on the African continent. Stork, Calandro, and Gamage (2014) explained that wired broadband was rapidly losing ground to mobile broadband in Africa. Stork, Calandro, and Gillwald (2013) added that by 2013, the mobile phone became the key entry point for Internet usage in Africa. Countries such as Ethiopia, Uganda, Nigeria, and Tanzania witnessed more than half of their population accessing the Internet for the first time ever through a mobile phone.

Over time, mobile network traffic shifted from voice to data and soon enough, data traffic exceeded the volume of voice calls across the world's mobile networks. Bold and Davidson (2012) explained that large-scale mobile networks which were initially deployed to provide voice services to end-users, began reinvesting revenues from their voice services to upgrade their networks for the delivery of advanced mobile broadband services.

The global surge in mobile broadband was also expected to have huge economic impacts. Bold and Davidson (2012) predicted that economies such as India, China, Nigeria, South Africa, and the United States of America were likely to experience GDP increases of between 1 and 1.8% when a 10% increase in mobile broadband penetration is achieved.

The research conducted by Ericsson (2015) proved that mobile broadband has indeed gained a large consumer base in Nigeria with 93% of the country's Internet users surfing the web through mobile phones. According to the study, the ease of access and connectivity provided by mobile broadband has enabled Nigerians to lead more socially connected lives. This finding was echoed

by Pyramid Research (2013) which stated that over 80% of Nigerians believe that mobile services had improved their lives immensely.

1.1.3.2. Cybercrime

According to Mbanaso, Chukwudebe, and Atimati (2015), the Internet has greatly improved life as we know it. It has eased the provision of critical services such as financial transactions and governance, and has also aided the delivery of goods and services in almost all sectors of the economy. As a result, "Cyberspace", a term which Alexander (2007: 47) defined as "the Internet and the virtual world it creates", is regarded as an indispensable and vital infrastructure of the 21st century (Mbanaso et al., 2015).

Mbanaso et al. (2015) traced Nigeria's journey in Cyberspace back to the establishment of the independent regulatory body. The Nigerian Communications Commission introduced policy and institutional reforms which allowed for the liberalization of the Nigerian telecommunications industry and accelerated the growth of the Internet in the country. With the licensing of four major mobile telecommunication companies, the Internet became more accessible to citizens in different parts of the country and by 2016, Nigeria ranked seventh in the world for the highest number of Internet users (Internet Live Stats, 2016). Unfortunately, the country's growing engagement in Cyberspace also attracted an equally high rate of cyber-criminality (Mbanaso et al., 2015).

Halder and Jaishankar (2011) defined Cybercrimes as offences that are committed against individuals or groups of individuals with a criminal motive to intentionally harm the victims using modern telecommunication networks such as Internet and mobile phones. According to Alexander (2007), these criminal offences could range from fraudulent activities such as identity theft and investment scams, to the violation of privacy and intellectual property. Aransiola and Asindemade (2011) added that the fact that these crimes are perpetrated in Cyberspace makes it easier for the perpetrators to go scot-free, as they are not physically present while executing the crimes.

In the past, attempts were made by the Federal Government of Nigeria to curb cyber-criminal activities in the country as the Internet was seen as crucial to the nation's cultural, political, and

socio-economic activities. A notable initiative was the establishment of the Nigerian Cybercrime Working Group (NCWG) in 2004. This Group consisted of intelligence and ICT agencies of government, as well as major private ICT organizations. According to Adomi and Igun (2008), the goal of the NCWG was to develop an appropriate legal and institutional framework for securing computer systems and networks in Nigeria. The Group went on to develop the first ever Bill on Cybercrime and Critical Information Infrastructure Protection. However, this Bill was never signed into law in the National Assembly (Mbanaso et al., 2015). In 2011, the country's National Security Adviser instituted another National Committee which drafted a Cybercrime Bill that was passed into law in 2015.

The technological revolution associated with the advent of the Internet has made the uninterrupted exchange of information and communication possible, not only in Nigeria, but all over the world. The Internet has ensured that people from all walks of life within different geographical locations can stay connected to the world at large. The fact that the Internet has become mobile in recent years further increases its accessibility and convenience. Nevertheless, it remains highly imperative that all stakeholders of Mobile Broadband do all in their power to ensure the growth of this vital communication and information tool. After all, it has the potential to impact important aspects of societies such as healthcare and education (Bold & Davidson, 2012). The issue of Cybercrime is also one that should not be taken lightly. It goes without saying that appropriate measures should be taken to protect innocent individuals who are left vulnerable by their desire to be virtually connected to the society at large. Alexander (2007) put it well when he stated that the Internet has come a long way thus far, and now it is time for the society to step up and protect the growing number of users in Cyberspace.

1.2. Problem Statement

The idea or concept of a group of people or a body overseeing the activities of a select few is applied in almost all aspects of daily life. From the systems of education, religion and even family structures, we can clearly observe that there are appointed authorities who are expected to provide guidance and direction to those under their jurisdiction. The same goes for the system of governance, where representatives are elected and regulatory bodies are established to lead and guide individuals and corporations alike.

The Information and Communication sector of Nigeria, the largest economy on the African continent, has contributed immensely to the country's growth. This sector comprises telecommunications and information services, motion pictures, sound recording and music production, publishing, and broadcasting. According to the National Bureau of Statistics [NBS] (2016), the telecommunications industry alone contributed approximately N1.65 billion to the country's total Gross Domestic Product (GDP) in the final quarter of 2015. This figure, which represents an 8.8% contribution to GDP, was a slight increase from the industry's 8.76% contribution in the same quarter of the previous year. In total, the telecommunications industry made a 34.43% contribution to Nigeria's GDP in the 2015 fiscal year (NBS, 2016).

In the past, the various ways by which the actions and dictates of the government have positively and negatively affected growth and development within the telecommunications industry have been thoroughly examined. Onwumechili (2001) posited that the Nigerian government's constant misappropriation of funds, and its failure to establish appropriate telecommunications policies hindered the accessibility and affordability of telephone services in the years following the country's independence.

In contrast, the research carried out by Ajiboye et al. (2007) observed that the government had indeed taken steps to ensure the growth of the mobile telecommunications industry by providing telephone services to rural community dwellers in the country. These past analyses of the government's role in mobile telecommunications provided recommendations that were useful for the development of the industry at the time. However, the majority of those recommendations are no longer applicable to the present telecommunications environment. A case in point is the recommendation made by Onwumechili (2001) suggesting that private companies should be

allowed into the mobile telecommunications market in order to meet the huge demand for basic telephone services. The status quo of the Nigerian Mobile Telecommunications industry renders this proposed solution obsolete as the telecommunications space is currently dominated by four private mobile telecommunications companies which are not owned or operated by the Federal Government.

The evolution of the Nigerian Mobile Telecommunications environment over the years was further emphasized by Aginam (2015) when he highlighted Cybercrime and Mobile Broadband as current issues which urgently require the government's attention. As explained earlier, Mobile Broadband and Cybercrime are issues that are central to the operations of the present day mobile telecommunications space and as such, an exploration of the Nigerian Mobile Telecommunications Industry would be inadequate without an examination of the government's role in these two crucial areas.

Conclusively, the problem identified by this research is the absence of an up-to-date and thorough investigative study which proposes ways by which the Nigerian Mobile Telecommunications Industry can be developed and improved upon by the government whilst taking into consideration new facts that have emerged in the telecommunications environment. The last five years (i.e. 2011 to 2015) have brought about new concerns for telecommunications stakeholders and as such, the necessity for new investigations into how the government has thus far addressed these issues cannot be overstated. It was imperative that new research be carried out to determine what the predominant role of the Nigerian government in this industry has been in the last five years and thereafter, to make relevant suggestions and recommendations in line with the findings.

1.3. Purpose Statement

The purpose of this research is to put forward appropriate courses of action which will ensure the long term growth and development of the Nigerian Mobile Telecommunications Industry. By strictly focusing on the two relevant aspects of Cybercrime and Mobile Broadband and concentrating on what government actions have been embarked upon in these areas in the last five years, this research presents ways in which the government can further improve upon the state of things in the mobile telecommunications space. The choice of a five-year review period was informed by the timing of the publication of the last investigative study in this field, as well as the emergence of the issues of Mobile Broadband and Cybercrime in Nigeria. In order to present highly informed and significant suggestions as to what must be done to guarantee the progress and advancement of the industry, the researcher interacted with key players of the Mobile Telecommunications Industry who are at the hub of all communications related services.

1.4. Research Questions

The main research question for the purpose of this study was the following:

What role has the Nigerian government played in the overall growth and development of the country's Mobile Telecommunications industry within the last five years (i.e. 2011 to 2015) with respect to Cybercrime and Mobile Broadband?

The corresponding research sub-questions were the following:

a. What are the existing initiatives and policy objectives within the Nigerian Mobile Telecommunications industry with respect to Cybercrime and Mobile Broadband?

b. How have the government's actions in the areas of Cybercrime and Mobile Broadband in the last five years influenced the growth of the industry as a whole?

c. What does the present situation of the Nigerian Mobile Telecommunications Industry with respect to Cybercrime and Mobile Broadband require of its current governance and regulatory structures?

CHAPTER TWO

LITERATURE REVIEW

This section examines governance and regulatory issues in the international telecommunications environment and further dissects the role played by the Nigerian government in telecommunications over the years. Here, a thorough critique of the existing literature and their subsequent findings and recommendations is undertaken. The field of study central to this research, as well as the key attributes of this field and the relevant theories, is extensively discussed in this section. Ultimately, the Literature Review chapter identifies the knowledge gaps in the existing literature and proposes how these will be addressed.

2.1. Governance in the International Telecommunications Environment

According to Cowhey (1990), the international telecommunications regime before the mid-1970s rested on the principle that monopolies of service and equipment were the most efficient and equitable way of providing public services both domestically and internationally. As a result, most countries granted authority over their telecommunications industry to a single state-owned monopoly during this period. In most cases, this government monopoly played the roles of industry regulator, service provider/operator, and communications equipment manufacturer (Harwit, 1998). In India for instance, the Department of Telecommunications (DoT) was established to take up these roles, while the Pakistan Telephone Corporation (PTC) operated as the government monopoly in that country (Looney, 1998).

Harwit (1998) explained that the implication of these monopolies was that competition in domestic telecommunication markets around the world were suppressed and the global communications industry was run by public bureaucrats, as opposed to private entrepreneurs. According to Cowhey (1990), the most important institution of the international telecommunications regime was the International Telecommunication Union (ITU) which was established in 1932 by the merger of the International Telegraph Union and the International Radiograph Union. The duties and structure of the Union were contained in a single Telecommunication Convention and the institution typically regulated telegraph, telephone and radio operations around the world. Since its establishment, the ITU has become one of the most

respected agencies of the United Nations and has continued to adapt to the changing demands of the global telecommunications space (Codding, 1991).

The natural monopoly built by domestic telecommunication markets around the world did not stand the test of time. Cowhey (1990) explained that the digital technology revolution gave newer electronics companies, would-be providers of enhanced services, and large users of telecommunications, the incentive to challenge these national monopolistic systems. By the 1980s, it became clear that the government monopolies could not effectively provide the required telecommunications services and as such, many countries began to reform their telecoms sectors (Wallsten, 2001). According to Gutiérrez and Berg (2000), 14 Latin American and Caribbean countries privatized their former stated-owned telecommunication companies between 1984 and 1997. Countries such as Chile, Brazil, and Colombia also opened up their markets to foreign investment for the deployment of modern telecommunications infrastructure. Soon enough, the reclaiming of telecommunications authority from the government's grasp became the first major reform in the global telecommunications space.

Although telecommunications privatization and liberalization eventually came to be the norm in the global communications environment, it was initially resisted by domestic governments due to the reduction of state power and control that accompanied it (Petrazzini, 1996). The government of Asian countries such as India and China found it a bit more difficult to entertain the idea of private ownership and foreign investments in their telecoms markets. Although the People's Republic of China currently possesses one of the biggest telecommunications industries in the world, the government was not always supportive of the country's transition into the Information Age.

Loo (2004) explained that in the 1980s, the Ministry of Posts and Telecommunications (MPT), which served as China's state-owned monopoly, was solely focused on providing universal coverage of fixed-line telephone services and consciously ignored the development of the Internet in the country, a technology that was rapidly being developed in the West. Despite the growing demand from within, particularly from the country's academic and research communities, the government refused to open its market to any form of technology that might facilitate the involvement of external parties. The Chinese Academy of Sciences (CAS) soon took matters into its own hands and introduced Internet Communication for the first time in the

country through the establishment of the China Research Network (CRN). According to Loo (2004), access to the CRN was limited to research and academic institutes within the country. The government of the United States of America, fearing the potential of socialist countries gaining wider access to other science and technology resources on the Internet, restricted the CAS connection to a network overseen by its Department of Energy (Loo, 2004). It was a result of this external control that the Chinese government finally decided to take charge and push for nationwide access to the Internet. In 1994, China finally became visible on the world's Internet map.

The hand of the Chinese government was forced again in 1999 when the World Trade Organization (WTO) demanded that the country open up its telecommunications market to foreign investment. According to Zhang (2002), the country's primary concern was that of national security and as such, it initially sought to prevent foreign investors from involving themselves in telecoms operations and services. Nevertheless, after two decades of safeguarding against foreign domination, China finally capitulated and was forced to reform its telecommunications industry and allow foreign enterprises to hold equity stakes in its value-added telecommunications services (Loo, 2004). In recent years, a contrast to this conservative system of governance has been witnessed in the People's Republic of China. In May 2008, the Chinese government restructured its telecommunications industry by merging its major Private Telecommunications Organizations (PTOs). According to Fu and Mou (2010), the merger was aimed at restoring a competitive market to the Chinese telecommunications space. Furthermore, the Chinese government used its regulatory power to enhance the deployment of 3G technologies in the country in a bid to build a more advanced communication network (Kshetri, Palvia, & Dai, 2011).

In contrast to China, the Singapore government has taken a pro-active stance with regard to the development of its telecommunications industry. According to Wu and Leung (2009), Singapore's nationwide introduction of its state-of-the-art Integrated Service Digital Network (ISDN) in 1989 made it the first country in the world to possess an information infrastructure capable of converging voice, video, and data communication. The introduction of this narrow band ISDN by the Singapore government enabled the country to stay abreast of advanced communication technology early on in the international telecommunications regime. The

Singapore government once again distinguished itself from the Chinese government by entertaining the idea of competition as far back as 2000, when it introduced a sector-specific competition regulation in form of a Telecommunications Competition Code (Wu & Leung, 2009). The country was quick to acknowledge the benefits to be obtained from a competitive and liberal telecommunications environment and capitalized on it. Irrespective of the wealth and resources available to the People's Republic of China, it is clear that the early cooperation of the Singapore government rendered the Southeastern Asian country more advanced in the 1990s in terms of communication technology.

On the European scene, the system of governance in telecommunications has been a lot more unified. According to Sánchez and Asimakopoulos (2012), the member states of the European Union (EU) have typically followed the trend of adopting the EU's general rules on telecommunications into their domestic legislation. It was as a result of this legal adoption that EU member states began liberalizing their mobile communications industries and fostering competition in telecommunications in the early 1990s (Chang, Koski, & Majumdar, 2003).

According to Picot and Wernick (2007), the European Commission recognized the need to become a knowledge-based society in 2000. Consequently, the Commission developed the "eEurope Action Plan" which aimed to achieve widespread broadband penetration, availability, and use in all EU member states by 2005. In 2005, this Action Plan was reviewed and extended to 2010. The European Commission established the "i2010 initiative" with the aim of creating an open and competitive single market in Europe, increasing EU investments in ICT research by 80%, and promoting an inclusive European Information Society (European Commission, 2005). The domestic governments of different member states went on to ensure that telecommunications policy objectives were reached by implementing various national strategies. In Ireland, the construction of high-speed fibre-optic rings was embarked upon, while subsidies were made available to network-builders operating in the private sector in Sweden. According to Picot and Wernick (2007), the Spanish government offered long-term reimbursable loans to operators for the deployment of telecommunications infrastructure, and the government of the United Kingdom funded various innovative pilot projects.

Telecommunications is arguably one of the world's fastest developing industries. Nevertheless, this development has been experienced differently by various countries due to the decisions

made and actions taken by their internal governments and regulatory authorities. In the People's Republic of China, the government was slow to accept the modernization and advancement brought about by the world of telecommunications, thereby causing the country to lag behind in terms of technological development. Eventually, the government was compelled to embrace these technological changes by forces beyond its control. In contrast, the governance systems of other countries which were quick to adapt to this technological revolution, successfully put their countries on the global information map early on and increased their chances of nurturing a knowledge-based citizenry. These occurrences advance the notion that the government is perhaps, the most crucial element in facilitating a nation progress (technologically or otherwise), and in ensuring that such a nation makes a mark on a global scale.

2.2. An Overview of Governance and Regulation in the African Telecommunications Environment

The domestic monopolies which existed in the international telecommunications market prior to privatization and liberalization reforms were also present on the African telecommunications scene. According to Djiofack-Zebaze and Keck (2009), the telecommunications infrastructure that existed during the colonial era was inherited by the governments of different African states upon independence. Consequently, telecommunications on the African continent came under the control of various domestic state-owned corporations or agencies, as was the case internationally. Nevertheless, McCormick (2005) explained that African governments, unlike their international counterparts, were incapable of managing these telephone companies due to a lack of expertise and resources. This government inefficiency drove different African states to seek aid from international financial institutions such as the World Bank and the International Monetary Fund and as a lending conditionality, these states were expected to engage in structural adjustment programmes and undertake crucial economic restructuring processes (McCormick, 2005). With respect to telecommunications, this restructuring came in the form of market privatization and liberalization and soon enough, the African telecommunications sector evolved from state monopolies to a more liberal market.

Like the International Telecommunication Union (ITU), the African Telecommunications Union (ATU) was established in 1999 to oversee the regulatory plans of its member states and ensure that the telecommunications sector remained competitive and open to private-public partnerships. In an attempt to lead by example and further encourage private involvement in the African telecommunications environment, the ATU left its membership open to not only government agencies, but also private service providers and operators (McCormick, 2005).

As governments of African states began to realize that greater market openness and pro-competitive regulation were strong drivers of telecommunications growth (Varoudakis & Rossotto, 2004), they began to embrace the communication revolution. In 1998, the Botswana Telecommunication Authority (BTA), now an associate member of the ATU, awarded mobile licenses to two private companies (Vista Limited and Mascom Wireless Consortium). By so doing, the government of this Southern African country abolished the monopoly enjoyed by the Botswana Telecommunications Corporation (BTC) and successfully increased the country's teledensity (McCormick, 2001). Governments of Northern African countries such as Morocco and Egypt who introduced competition early in their telecommunications markets were able to achieve penetration rates comparable with the international market by 2000 (Varoudakis & Rossotto, 2004). By implementing the liberalization and privatization policies contained in its Accelerated Development Plan (ADP), the Ghanaian government also single-handedly ensured the positive growth of its telecommunications sector (Frempong & Atubra, 2001).

Djiofack-Zebaze and Keck (2009) found that overall, the continent's fixed-line telephony segment which was 100% monopolistic in 1995 became more competitive and managed to attain a 56% drop in monopolistic activities by 2004. Monopolistic activities within the mobile telephony segment also dropped from 70% in 1995 to less than 10% in 2004. As the continent's monopolistic telecommunications market crumbled, countries also began to open their local markets to foreign investments.

According to Gillwald (2005), the South African government, like other African governments, instigated telecommunications reforms in order to meet its twin national objectives of affordable access to communications services and accelerated economic development. However, the government's slow response to issues arising from its partial privatization and limited competition strategy hampered increased access to telecommunications in the early 2000s.

According to Horwitz and Currie (2007), the Southern African government partially privatized its incumbent network operator, Telkom, and allowed for its limited competition in the Value-Added Network Services (VANS). However, the newly introduced VANS operators, which included Internet Service Providers (ISPs), were still required to obtain necessary facilities and bandwidth from Telkom. Gillwald (2005) explained that the high prices placed on these facilities by Telkom in an attempt to frustrate the competition, created serious barriers to communication access in the country as it made it difficult for ISPs to render services. The South African government failed to take quick actions to resolve this issue. As a result, the entire purpose of introducing competition into the telecoms industry was defeated as Telkom still possessed significant control over the telecoms industry. Furthermore, the fact that the government took its time in approving the new price cap regulations prescribed by the national regulator, the Independent Communications Authority of South Africa (ICASA), made it possible for Telkom to introduce price increases across its services in 2003 (Gillwald, 2005). Once again, this greatly hindered the achievement of the government's affordability objective.

The role played by the governments of different African states had a huge impact on the growth and development of domestic telecommunications industries. In South Africa, the government's failure to appropriately regulate the activities of the service provider Telkom, made access to and affordability of communication services difficult at a time when its Northern African counterparts were competing with international markets in terms of penetration. The difference in the internal progression of these countries in the early 2000s with respect to telecommunications was as a direct result of timely government actions and intervention. This further goes to show just how crucial and significant governance systems are to the development of not only an economic sector, but also an entire country.

2.3. Issues of Governance in the Nigerian Mobile Telecommunications Industry

The various ways by which the Nigerian government has influenced the development of telecommunications in the country over the years have been deliberated upon by different scholars. These individuals have critically analyzed the various actions and decisions made by the government with respect to telecommunications, going as far back as 1960; the very first time the government obtained complete control over the telecommunications industry.

Onwumechili (2001) highlighted the self-centered focus of government officials upon acquiring power back from the British colony. He explained that the early emphasis on providing telephone services for the sole purpose of running the country eliminated any hopes of universal telecommunications access held by citizens. He went on to examine the development plans which the government put in place in an attempt to make these telephone services available in the major commercial cities of the country. While Akwule (1991) suggested that the failure of the first national development plan was as a result of the military coup and civil war experienced by the country, Onwumechili (2001) maintained that the inability of the plan to meet its goals was largely due to the misappropriation of funds by the country's federal government. He explained that the government failed to release a lot of the funds budgeted for the development of telecommunications in the country and as such, the implementation of the development plans was either delayed or completely abandoned.

In the 1970s, the Federal Government of Nigeria set out to increase the number of telephone lines available in the country, a goal which Akwule (1991) believed was quite feasible considering the fact that the government had all the relevant resources at its disposal. Akwule (1991) explained that the country, being one of the world's leading oil producers, was financially capable of adding the proposed 700,000 new telephone lines to the 50,000 already in existence at the time. The oil boom and subsequent rise in oil prices experienced during the early 1970s further proved that this telephone expansion project could not have come at a better time for the country. Notwithstanding, this project, like many other proposed government projects before it, was not actualized. According to Onwumechili (2001), the government's failure to perform the primary tasks of allocating a realistic budget and acquiring the necessary manpower for the execution of the proposed project, brought this telecommunications development initiative to a halt. In the end, only 240,000 new telephone lines were installed in the country.

In 1985, the Nigerian government established the state-owned Nigerian Telecommunications Limited (NITEL) in a bid to provide better telecommunications services within the country. However, Onwumechili (2001) explained that all this government establishment succeeded in doing was creating the problem of unaffordability with respect to telecommunications services. NITEL, the government monopoly, increased its tariffs for both local and international calls throughout the country, making it almost impossible for the few who had access to telecommunications facilities to afford communication services. As for those who resided in the rural communities with no form of access to these facilities, life was unbearable. According to Adomi (2005), citizens who lived in the rural communities had to travel down to the cities to make calls and connect with relatives whenever the need arose. This system made communication almost impossible for the bulk of Nigerians, as a majority of the country's population did not reside in the urban cities.

In considering the government's negative influence on the growth of communications within Nigeria, Onwumechili (2001) recommended that the government open up the telecommunications market to other service providers. With the introduction of new market players, Onwumechili (2001) expected that the issue of ridiculously expensive call rates would be addressed. He also recommended that the government set up a national policy to ensure its commitment to extending telephone services to rural communities within the country

Ajiboye et al. (2007) conducted a study on the impact of mobile telecommunications on the Nigerian rural economy. Using the descriptive survey research design, this research study selected a random sample of 1000 Global System for Mobile Communications (GSM) subscribers, all of whom were from ten different rural communities of the Western Nigerian state of Oyo. These respondents ranged from 25 to 50 years of age and comprised teachers, policemen, unemployed graduates, drivers and itinerant traders. The results of this study showed that the introduction of GSM to Nigeria had a significant impact on the country's rural economy. According to Ajiboye et al. (2007), GSM created employment opportunities for unemployed youth in the rural areas as the mobile communications operators and their various distribution chain components hired individuals to support the running of their businesses. The study also showed that the rate of crime in the rural areas had diminished as a result of mobile communications technology. Due to the fact that more individuals possessed mobile phones,

criminal activities were easily and quickly reported to the relevant authorities who handled these activities accordingly.

The earlier studies conducted by Akwule (1991) and Onwumechili (2001) took historical facts into consideration in determining the Nigerian government's overall contribution to the growth of the country's telecommunications industry. In his analyses, Onwumechili (2001) concluded that the growth of the communications industry in the years following the country's independence was stunted as a result of the government's actions and in some cases, inaction. He was of the opinion that the government showed very little interest in and commitment to ensuring the progress of this industry. As a result, very few Nigerians had access to telecommunications facilities, and even fewer could afford to use these facilities. In contrast, a more current study conducted by Ajiboye et al. (2007) posed a different conclusion. By taking into consideration the current reality of the country (i.e. the government's introduction of GSM to the country), as opposed to historical facts, Ajiboye et al. (2007) proved that the government had indeed done more to enhance the growth of telecommunications in the country.

The study by Ajiboye et al. (2007) not only rendered the findings of Onwumechili (2001), with respect to telecommunications access in Nigerian rural communities, obsolete, but also, went on to prove that the government's active role in introducing the GSM single-handedly improved the welfare of citizens within these rural communities. At the time the study by Ajiboye et al. (2007) was conducted, government policies had been set up to ensure that telephone services were made available in the rural communities of Nigeria and the telecoms market had already been opened up to accommodate other GSM services providers. In essence, the changing reality and facts of the Nigerian telecommunications environment rendered the recommendations put forth by earlier studies obsolete and inapplicable, and this trend is one that is sure to continue as long as the country's telecommunications industry continues to grow and expand.

2.4. Governance and Regulation

The logic behind the process of governance is the same in every society and the reason for the existence of governments is quite simple. Governments are statutory authorities typically established to ensure that tranquility and justice are maintained in the society over which they rule. They exist to promote the general welfare of the populace under their jurisdiction and ensure that their needs and demands are appropriately catered to. As a result, a government's interference in the routine activities of institutions and the general public is met with unanimous consent in most cases.

Rosenau (1995: 14) stated that governance "encompasses the activities of governments, but it also includes the many other channels through which "commands" flow in the form of goals framed, directives issued, and policies pursued". This is to say that the concept of governance comprises not just the actions carried out by established statutory governments, but also, the actions of other institutions established and used by these governments to achieve their goals. Baldwin, Scott, and Hood (1998, as cited in Jordana & Levi-Faur, 2004) gathered that the process of governance involves the process of regulation. They explained that regulation is a specific form of governance which entails an authoritative set of rules, usually accompanied by an administrative agency for monitoring and enforcing compliance with these rules. In other words, the broad practice of governance cannot be fully understood without making reference to the more specific practice of regulation, as well as the regulatory bodies through which governments enforce established rules.

Levi-Faur (2010) stated that the concept or notion of regulation is highly contested by individuals from different walks of life. He explained that the lack of a unanimous definition of regulation stems from the fact that scholars in fields ranging from Economics to Public Administration have different perceptions of the ultimate purpose of regulation. Jordana and Levi-Faur (2004) supported this claim by highlighting that the different definitions of regulation put forth are a direct reflection of specific disciplinary concerns, as well as the unique personal and historical experiences of the formulators of these definitions.

Levi-Faur (2010: 9) however, defined regulation as "the promulgation of prescriptive rules as well as the monitoring and enforcement of these rules by social, business, and political actors on

other social, business, and political actors". He associated the process of regulation with regulatory agencies which are established for the sole purposes of rule-making, fact-finding, monitoring, adjudication, and enforcement, and went on to identify two predominant types of regulatory agencies namely; Economic Regulatory Agencies and Social Regulatory Agencies. According to Stern and Holder (1999), economic regulation is concerned with issues of price, quality, costs of service, and return on assets. Levi-Faur (2010) also stated that economic regulatory agencies handle issues of competition, whereas the social regulation agencies deal with issues of health, safety, and the environment at large.

2.5. Key Attributes of Governance

The process of governance is associated with three major features or attributes which are interrelated and can barely be effective independently. These attributes are Transparency, Participation, and Accountability. According to Otoghile, Igbafe, and Agbontaen (2014: 181), "good governance is, among other things, about being participatory, transparent and accountable". As such, for any system of governance to be considered good and effective, it has to incorporate these three attributes in its processes, regardless of what entity is being governed.

2.5.1. Transparency

The underlying assumption of the concept of transparency in governance is that the governed public is provided with sufficient information about the government's actions and no decisions are made in secret without the public's knowledge. According to Stiglitz (2002), information is like every other public good which the government is obligated to provide to the general public. In his opinion, the public has paid the government for this information and the government's failure to make essential information available ultimately means that citizens are being deprived of their basic right. Stiglitz (2002) however, acknowledged the fact that a natural asymmetry of information exists between those who govern and those who are governed. He posited that this asymmetry or imbalance of information affords government officials the opportunity to pursue private interests, as opposed to pursuing the interests of the citizenry. According to him, secrecy provides individuals in government with exclusive control over certain areas of knowledge and

increases their power. This point was further stressed by Florini (2002) when she highlighted the fact that the possession of information is indeed similar to the possession of power, and more often than not, holders of this power are reluctant to give it up.

2.5.1.1. Incentives for Secrecy

Government officials typically have various reasons for preventing the public from gaining access to vital information. According to Stiglitz (2002), one of the reasons that government officials would have for wanting to introduce secrecy in their dealings is to prevent the public's negative judgement. Stiglitz (2002) opined that secrecy protects those in government from being accused of making mistakes if and when certain implemented policies fail to produce the right results. Due to the fact that the public was not well informed of the state of things prior to the implementation of these policies, the government can always claim that things would have been worse off but for the implemented policies. By doing this, they encourage a poorly informed populace to regard them highly, as opposed to criticizing them. Stiglitz (2002) however, argued that the citizenry's confidence in the government would actually increase if officials dealt honestly with the public.

Another reason Stiglitz (2002) put forth for the government's lack of transparency is its unethical intention to collect 'rents' from the public. According to him, public officials create an artificial scarcity of vital information, which then affords them the opportunity to collect bribes in return for the provision of the supposed little information that is available.

The final reason, and perhaps the most obvious incentive for public officials' secrecy, is to advance their personal interests. By shutting out the public from their activities, government officials can focus on handling issues that appeal most to them and develop policies that are essentially beneficial to them and do not serve the public's interest. Florini (2002) explained the government's relationship to the public with reference to the principal-agent concept. She opined that governments, as agents, are supposed to act on behalf of their principals, the public, and advance their interests. However, these agents typically have interests that are different from those of their principals and often take actions that promote their own wellbeing.

Florini (2002) went on to explain that the power the agents have over the principals can only be reduced by the introduction of a transparent system of operations. Although Florini (2002: 32) made mention of instances where a lack of transparency could be useful, such as in the protection of individual privacy and the advancement of national security, she noted that there are indeed, "relatively narrow sets of circumstances in which secrecy is truly more appropriate". Stiglitz (2002: 36) also emphasized that exceptions made to transparency due to issues of national security are often extended to situations where "national security is clearly not an issue". He explained that the public would only be assured of the government's good intentions if a transparent and open system were to be applied in the process of decision making and concluded that greater openness is in fact, an essential part of good governance.

2.5.2. Participation

In his assessment of participation as a critical ingredient of good governance, Masango (2002: 53) defined public participation as "an exercise in which members of the public – as individual citizens, interest groups, or interest group representatives – deliberately take part in relevant public policy-making and implementation processes". He explained that the public, as an entity, reconstitutes itself and as such, the participating public in government processes at any point in time should comprise individuals who are "involved and interested in the issue at stake". This implies that the concept of participation, while encouraging the involvement of the general populace in government activities, also specifies that this populace has to be relevant to the subject matter in question in order for effective participation to be achieved.

2.5.2.1. Participation and Information

Stiglitz (2002) noted that the ability of the public to effectively participate in governmental or democratic processes relies heavily on the amount of information available to them. In other words, while it is of utmost importance that the participating public is relevant to the issue at hand, they also have to be well informed about its dynamics and complexities, as it is impossible to effectively participate in an issue they know little or nothing about. As such, the concept of

participation cannot be fully achieved without the application of transparency in the system of governance.

Masango (2002) concurred with this philosophy when he stated just how important the practice of disseminating information is to the participating public. He also added that this process of communication has to be reciprocal for effective participation to take place. While the government owes it to the public to provide it with the necessary information about their proposed actions, the public is also expected to provide the government with information about its concerns, needs and interests. Masango (2002) explained that this exchange of information is mandatory if effective governance is to be achieved. He stated that the public's declaration of its needs to the government not only facilitates good policy making, but also ensures a smooth policy implementation process as no resistance would emanate from the public, who have been hands-on with the entire process from the onset.

Masango (2002) indicated that the process of participation is all-inclusive as it involves relevant people from all walks of life having different social ranks. As such, when the public airs its grievances and makes its needs known to the government, it can be sure that the problems of all communities, regardless of the status of their incumbents, will be addressed.

2.5.3. Accountability

Scott (2000: 40) defined accountability as "the duty to give account for one's actions to some other person or body". Mulgan and Uhr (2000: 2) explained the term accountability in relation to governance, as "a means for principals to ensure that their agents or delegates pursue the principals' interests rather than their own". They explained that the process of accountability requires government officials to report on their activities and provide reasons behind their decisions. Again, the concept of transparency is embedded in the process of accountability.

According to the definition given by Mulgan and Uhr (2000), it is clear that the core purpose of the concept of accountability is control. Members of the public, through accountability, seek to monitor the actions of public officials in order to keep them in check and ensure that they do not act in their self-interest. However, to do this effectively, they need sufficient information about government actions, and the government has to be completely honest and open with the public

about its dealings. Mulgan and Uhr (2000) emphasized that the entire process of accountability begins with the government's provision of information to the public, and ultimately ends with the public, as the 'account-demander', enforcing sanctions or corrective actions where necessary. According to Mulgan and Uhr (2000), the quality of governance depends greatly on the public's performance of this role.

2.5.3.1. Classes and Types of Accountability

Scott (2000), in differentiating the notions of 'to whom' one is accountable and 'for what' reason accountability is given, identified three classes of accountability. The first class is the "Upward Accountability" which is the type of accountability given to a higher authority. This type of accountability is visible in the work environment and also within most academic and religious institutions. The second is the "Horizontal Accountability" which is the kind of accountability rendered to a broadly parallel institution (e.g. the relationship between a private corporation and its designated regulatory institution). The final class of accountability which public accountability falls into, is the "Downward Accountability". Here, accountability is typically rendered to lower level institutions and groups.

Romzek (2000) took the classification of accountability a little further when she identified four major types of accountability, namely: Hierarchical Accountability, Legal Accountability, Political Accountability, and Professional Accountability. In her opinion, the underlying relationship in hierarchical accountability is that of supervisor-subordinate, where individuals (i.e. subordinates) who have low work autonomy are expected to meet performance expectations as stipulated in the organizational directives. This type of accountability is closely linked to the Upward Accountability identified by Scott (2000).

The Legal Accountability, which is associated with Horizontal Accountability, involves a relationship between two relatively autonomous actors. Legal Accountability requires one actor to comply with the external mandates put forth by the other. This type of relationship is one that exists between corporate or public institutions and external auditors.

Political Accountability is one that involves responsiveness to external stakeholders. The public accountability of government officials falls into this category. Here, the accountable party (i.e.

the government) anticipates and responds to the agenda and expectations of an eternal body (i.e. the public), and subsequently gives a detailed report on measures taken to meet those expectations.

The Professional Accountability, unlike all other types of accountability, does not involve two separate entities with one being accountable to the other. In contrast, this type of accountability sees individuals with high degrees of autonomy being accountable to themselves. Here, performance standards are internally set by individuals based on their personal convictions, professional socializations, or work experience.

It is impossible for one key attribute of governance to exist in isolation. Transparency, Participation, and Accountability are three elements of governance that work in tandem to achieve the goal of effectiveness. Public participation and government accountability cannot fully be achieved without the government providing adequate information about its actions and being transparent in its dealings. Likewise, it is impossible for a claim of absolute participation to be made in a system where the government fails to report its activities to the public, giving reasons for decisions made and policies effected. Conclusively, any system of government which desires to be regarded as effective in its operations has to employ these attributes simultaneously and judiciously with the sole aim of advancing the interests of the governed.

2.6. Theories of Economic Regulation

The broad process of regulation is divided into Economic Regulation and Social Regulation. Posner (1974: 335) explained the term 'economic regulation' to mean "explicit legislative and administrative controls over rates, entry, and other facets of economic activity". In contrast, Den Hertog (1999), described social regulation as the kind of regulation which is predominant in the area of consumer protection, environmental conditions, labour and labour conditions. Den Hertog (1999) further explained that the process of economic regulation, which is mainly exercised on natural monopolies and market structures with excessive or limited competition, consists of structural and conduct regulations. While structural regulation focuses on regulating market structure, conduct regulation focuses on regulating behavior within the market.

Economic Regulation is central to this research study and as such, the two main theories of Economic Regulation will be considered in relation to the process of governance. These theories are the Public Interest Theory of Regulation and the Capture Theory of Regulation.

2.6.1. Public Interest Theory of Regulation

According to Posner (1974), the Public Interest Theory posits that all forms of regulation exist to correct the inefficiencies present in the market and also modify inequitable market practices in response to the public's demand. He explained that the basic principle of this theory is that all regulations in existence can be traced back to existing market imperfections which are to be corrected in order to promote the welfare of the public. Den Hertog (1999) further stressed that this theory explains the process of regulation as one that seeks the best possible allocation of scarce resources for the collective good. Levine and Forrence (1990: 168) added that regulation, with regard to the Public Interest Theory, involves the "exercise of collective power through government in order to cure "market failures," to protect the public from such evils as monopoly behavior, "destructive" competition, the abuse of private economic power, or the effects of externalities".

Posner (1974) highlighted two assumptions of the Public Interest Theory of Regulation. The first assumption held by this theory is that the process of government regulation is highly effective

and virtually costless to all parties involved. Secondly, the theory assumes that economic markets are naturally fragile and therefore cannot operate effectively or equitably without appropriate or corrective mechanisms in place. As such, such economic markets are more or less doomed to fail without the timely and consistent intervention of the government.

2.6.1.1. Criticisms of Public Interest Theory

The Public Interest Theory describes regulation as a process that ultimately seeks to ensure that the general public is protected from all injustices that may arise in the market, mostly resulting from unethical practices of market players and unpredictable external forces. Posner (1974) however, maintained that the government's mere perception of certain initiatives as beneficial to the public does not automatically translate into them becoming laws. He explained that, although the theory aims at protecting the welfare of the public and promoting public interests, it fails to detail what steps are taken by government officials or regulatory agencies to convert all perceived beneficial activities into concrete legislative mandates which would be enforced over time. According to Posner (1974), this missing explanation undermines the credibility of the Public Interest Theory.

In his analysis of the theory's assumption of imminent market failure, Den Hertog (1999) stated that certain perceived market inefficiencies are eventually straightened out by activities within the market itself. He explained that often, market players find ways to sort out disparities within the market on their own without the intervention of regulatory bodies. As such, Den Hertog (1999) questioned the necessity for and actual motive of government regulations. In support of this, Posner (1974) explained that there is a growing body of case studies which demonstrates that certain schemes of government regulations cannot be justified on the grounds that they ultimately promote the welfare of the public.

2.6.2. Capture Theory of Regulation

Posner (1974) explained that the Capture Theory of Regulation, unlike the Public Theory, does not view economic regulation as a process to promote public interest, but instead, describes it as a process through which certain interest groups seek to promote their own private interests. These interests, according to Levine and Forrence (1990), could range from self-gratification to post office-holding affluence. He explained that the theory, though perceived differently by Marxists, political scientists and economists, ultimately refutes the claims of public interest promotion made by the Public Interest Theory.

According to Etzioni (2009), political scientists who mainly founded the Capture Theory observed that regulatory agencies pass through different development stages, the first of which is the "youth stage". At this stage, the regulations set by agencies work towards promoting the interest of the public and meeting the perceived needs of the populace. At the end of this stage, the agencies enter into the "stage of maturity" where their focus shifts from serving the public, to serving the interests of the market players whom they regulate. Den Hertog (1999) stated that one of the reasons for this shift in focus is that regulatory officials begin to observe career opportunities within the regulated market or industry. As a result, these government officials become less stringent in their regulatory activities and instead, begin to conduct business in a way that suits the needs of the regulated industry player in the hopes that this would enhance their career prospects.

Etzioni (2009) explained that the regulated market players ultimately gain control of the regulatory agencies and 'capture' regulation through various means. In some cases, the industry players begin to play a key role in the drafting of legislation through the use of representative lobbyists. In the event that partaking in the law-making process is for some reason unachievable, these players, in a bid to protect their private interests, develop ways to weaken the enforcement of already established legislation or initiate strategies to eliminate existing regulations from the books completely.

2.6.2.1. Criticisms of the Capture Theory

The Capture Theory of Regulation, like the Public Interest Theory before it, has faced criticisms from different scholars. Posner (1974) described the main supposition of this theory as 'unsatisfactory'. He explained that in reality, a relationship between regulating and regulated parties already exists and this relationship mostly involves consistent negotiations in an attempt to reach a common ground. He went on to state that the Capture Theory does not give any reason for suggesting that this relationship over time, transitions into one where subjugation becomes the principal factor. Posner (1974) insinuated that the theory did not provide a satisfactory explanation as to why the regulating party would ultimately move from negotiating and deciding on best-industry practices with regulated industry players, to letting the latter call the shots completely. Posner (1974) further explained that the customers of these regulated parties possess private interests as well. However, he noted the theory's failure to explain why the only interest group that is likely to manipulate the regulatory agencies and bend existing regulations for their own good is the regulated industry.

Posner (1974) pointed out that the Capture Theory fails to explain why the regulated parties or institutions, which are presumably powerful enough to thwart regulations, do not possess the power to prevent the establishment of the regulatory agencies in the first place, or better still, create agencies of their own which would solely exist to serve their private interests. Den Hertog (1999) also criticized the theory for not completely distinguishing itself from the Public Interest Theory as it initially assumes that regulations are indeed established to serve the interest of the public.

2.7. A Conceptual Framework for Determining the Effectiveness of the Nigerian Government

Stiglitz (2002) pointed out that a government's sole aim should be to act in the interest of its citizens as opposed to using its power and influence to serve private interests at the public's expense. He suggested that one effective way of ensuring that the wrong parties do not benefit from the government's power is by introducing a system of transparency in all government operations. Otoghile et al. (2014) supported this recommendation when they identified Participation, Accountability and Transparency as three key elements which must be present for an effective system of governance to be achieved. This further emphasizes the fact that it is impossible for one key attribute of governance to exist in isolation as they all work in tandem and complement one another to ensure that effective governance is truly accomplished.

For the Public Interest Theory of Regulation to successfully operationalize its principle of public welfare promotion, it would have to incorporate these three elements of governance. It would be highly impossible for a government to realistically protect the interest of its populace without giving them the opportunity to speak their minds and participate in the governance process, having been informed of all government actions. In the same vein, a system of governance which applies the Capture Theory of Regulation in its processes and seeks to advance the interests of a few would have no reason to involve the general public in its decision making processes and would avoid reporting its activities to the populace. Such a government would go the extra mile to ensure that any information concerning its activities does not get to its citizenry, thereby evading the application of transparency in operations. Otoghile et al. (2014: 180), in explaining that the people are at the center of any good system of governance, stated that, "the objective of the governing authority should be how to positively impact the lives of the citizenry, and, the extent to which it has achieved that makes governance good or otherwise".

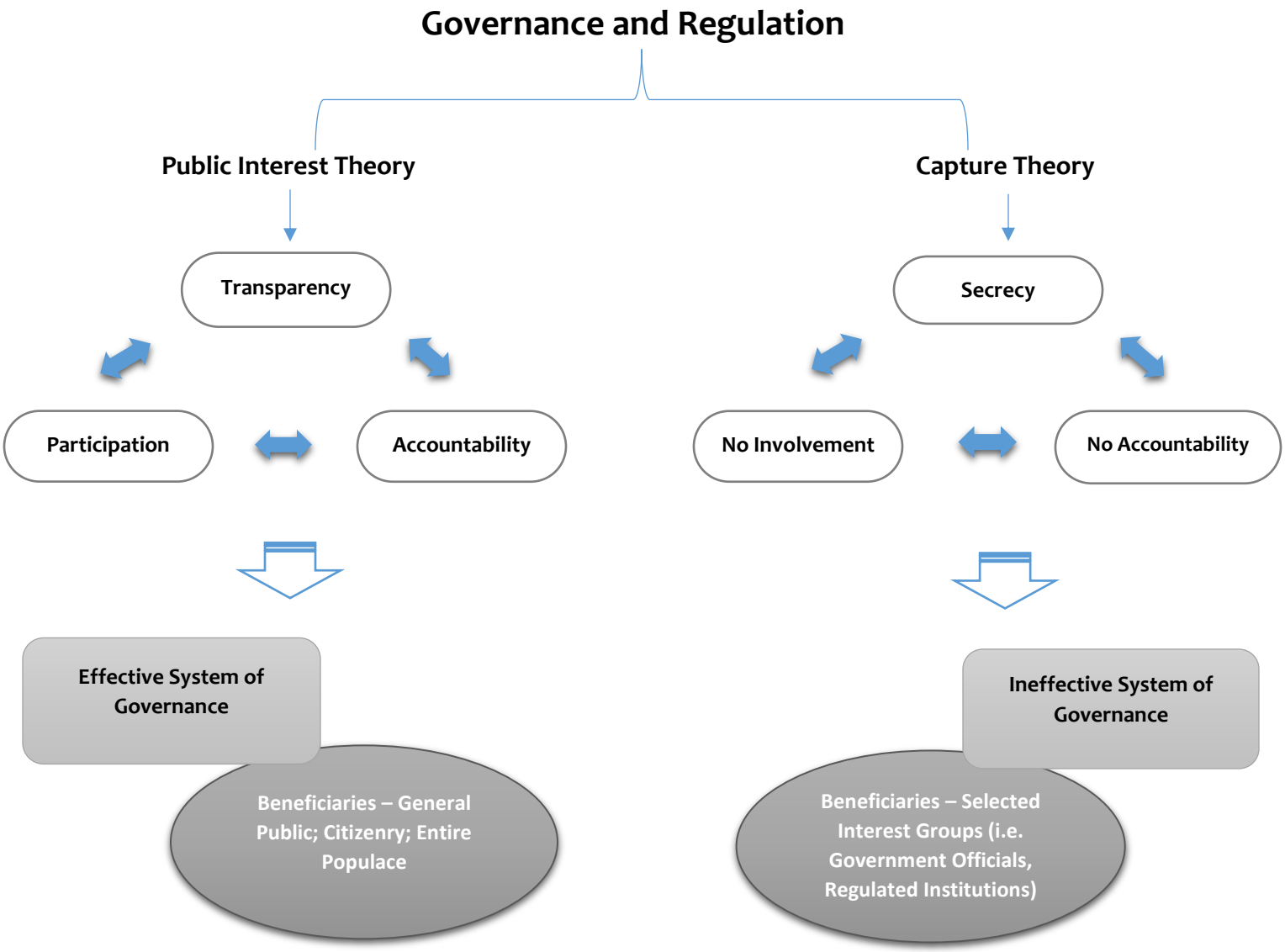

Figure 1. A Conceptual Framework for Determining the Effectiveness of the Nigerian Government.

The argument between proponents of the Public Interest and Capture Theories of Regulation still go on today. Some individuals still hold the view that government agencies can still be regarded as competent as they often advance the broad and diffuse interests of the public at the expense of the special interests of powerful groups (Croley, 2000). Nevertheless, others maintain that the entire concept of government altruism is a sham because those in power are merely human beings whose actions are guided by self-interest as opposed to the common good (O'Toole, 2007). This research study sets out to reveal if the Nigerian government, with respect to its dealings within the Mobile Telecommunications Industry, has ultimately been effective or otherwise, and further clarifies whether the dictates, policies, and actions of the government reflect a people-centered administration or a system simply built to serve the interests of a select few.

Over the years, the Nigerian Mobile Telecommunications Industry has moved beyond the provision of basic telephone services to include nationwide Mobile Broadband services. Orimisan (2015) reported that as at June 2015, the total number of Nigerian phone subscribers that surfed the internet was 92,816,572. In just one month, this number increased significantly by 735,239, bringing the total number to 93,551,811. With this figure representing more than half of the country's total population, it comes as no surprise that the Groupe Speciale Mobile Association (GSMA), an association devoted to promoting the GSM mobile telephony system, predicted that Nigeria could add N862 billion in total Gross Domestic Product (GDP) from technology alone by the end of 2015 (Osuagwu, 2011). The Association however emphasized that the government has a crucial supportive role to play in ensuring that this is achieved.

The issue of Cybercrime is also one which has plagued the Nigerian Mobile Telecommunications Industry in recent times. Prior to the introduction of the Cybercrime Bill in 2013, the mobile communications market was extremely vulnerable to cyber related crimes such as identity theft and impersonations, cyberstalking, and other fraudulent activities. Nevertheless, the passing of this Bill into law in 2015 has seemingly not done much to alleviate internet related crimes in the country and render the nation's cyberspace safer. According to an article by Amaefule and Ubabukoh (2016), the Federal Republic of Nigeria currently loses about N89.55 Billion ($450 Million) annually to internet related fraud, a situation which clearly necessitates immediate pre-emptive measures.

This research study recognizes Mobile Telecommunications as an industry capable of elevating an entire country both economically and technologically, provided that the relevant governing authorities remain pro-active in their attempt to aid the industry's development. As such, this study focuses on discovering the extent to which the Nigerian government has fulfilled its duty to the nation by supporting the growth of the country's Mobile Telecommunications through its policies and actions.

With the scope of the Nigerian Mobile Telecommunications Industry broadening and the issues of Mobile Broadband and Cybercrime gaining relevance within the industry, this study carries out a necessary re-evaluation of the government's incorporation of the concepts of Transparency, Participation and Accountability in all its operations within Mobile Telecommunications in the last five years. Has the government played right into the assumptions held by proponents of the Capture Theory of Regulation? Is there really an implicit intent to promote the public's interest with its actions and decisions? This research study attempts to provide answers to these questions and suggests what the next steps should be for this overly scrutinized industry.

CHAPTER THREE

RESEARCH METHODOLOGY

This Research Methodology section focuses on how this study was effectively operationalized by the researcher in order to contribute to the existing body of knowledge. Here, the overarching research paradigm is introduced and the selected research approach, design and techniques to be used during the course of the research are identified. The ethical principles that were observed during the course of the research, as well as the limitations of the study, are also discussed here.

3.1. Research Paradigm

This research study sought to determine how government regulations in the Nigerian Mobile Telecommunications Industry have predominantly influenced the industry's operations and overall performance in the last five years. Ultimately, the study was embarked upon with a view to recommending appropriate steps to take in order to ensure the sustained growth and development of the industry in the long run. The successful completion of this research inquiry would have been impossible without an in-depth look at the development and occurrences within the Nigerian telecommunications space. As such, this study adhered to the constructs put forth by Interpretive Social Science, a scientific paradigm which emphasizes the detailed study of social phenomena.

According to Neuman (2014), proponents of Interpretivism believe that the actual meaning of a phenomenon is seldom derived without carrying out a close examination and in-depth study of such phenomenon. Interpretivists are typically of the opinion that a thorough study of a situation or an event has to be embarked upon in order to facilitate profound understanding. Hay (2011) went on to add that the Interpretive school of thought states that possessing a clear understanding of a phenomenon is the only way by which that phenomenon can successfully be explained. Hay (2011) further described the process through which scholars of Positivist Social Science explain political and social phenomena, as well as how this process differs from that of Interpretivism. He stated that Positivists, who are mainly natural scientists, explain a particular event using a more general phenomenon. For instance, in order to explain why a particular object acts in a certain way under certain conditions, they simply observe the path which similar objects under the same specified conditions have previously taken. As such, the explanation of this event

merely becomes an abstract re-description of a more general phenomenon. This is however not the case for Interpretivists. According to Hay (2011), Interpretive Scientists, who are mainly sociologists, believe that to explain a phenomenon is to understand (or at least make a claim to understand) how things came to be the way they are and not some other way. Walsham (1995) explained that this understanding is usually derived from interactions with the human subjects involved in that phenomenon. In line with the assumptions of the Interpretive Social Science, this study interacted with the relevant actors in the Nigerian Mobile Telecommunications Industry to explore the industry's intricacies, elicit information, and enhance one's understanding in order to produce informed suggestions as to how the state of things within the industry can be improved.

3.2. Research Approach

The two approaches widely used in conducting research inquiries are the Qualitative Approach and the Quantitative Approach. The process of combining these two approaches in one research study, usually referred to as Triangulation, is also adopted by researchers if deemed necessary. For the purpose of this research however, only the Qualitative Approach was applied. This approach successfully captured the essence of this study and an elaboration on the features of the Qualitative Research Approach will justify its application in this research.

3.2.1. Qualitative Research Approach: Nature, Merits and Shortcomings

Strauss and Corbin (1990: 10) defined the term 'qualitative research' as "any type of research that produces findings not arrived at by statistical procedures or other means of quantification. It can refer to research about persons' lives, lived experiences, behaviors, emotions, and feelings as well as about organizational functioning, social movements, cultural phenomena, and interactions between nations". Yilmaz (2013: 312) further defined qualitative research as "an emergent, inductive, interpretive and naturalistic approach to the study of people, cases, phenomena, social situations and processes in their natural settings in order to reveal in descriptive terms the meanings that people attach to their experiences of the world". He explained that this type of research approach is based on a constructivist epistemology and as such, it assumes that knowledge of the world is a psychological and social construction.

Unlike the quantitative research approach which views the researcher and the research subjects as separate and independent entities, the qualitative paradigm encourages the researcher to develop a close and empathetic relationship with the research subjects in order to ensure the success of the research process. The advantage of this approach is that it enables the researcher to gather detailed and extensive information of extremely high quality. Yilmaz (2013) also opined that qualitative research, which seeks to answer the 'what', 'how' and 'why' questions, is holistic and flexible in nature. Buston, Parry-Jones, Livingston, Bogan, and Wood (1998) added that this more holistic research approach is useful and more appropriate for studying complex situations in which the relevant variables are not initially apparent.

The qualitative research approach, though holistic, is not without its faults. Yilmaz (2013) noted that researchers who apply the qualitative research approach may be required to stay in the research setting for a substantial period of time in order to facilitate better contextual understanding. He further explained that the data analysis process in the qualitative approach demands time which could also be equivalent to the amount of time spent in the field. All in all, while this research approach is highly revealing, it is undoubtedly time-consuming and in most cases, expensive to carry out.

3.2.2. Justification for Applying the Qualitative Research Approach

Strauss and Corbin (1990) proposed that a valid reason for choosing to apply the qualitative approach in any research is the nature of the research problem. This research sought to address the problem of obsolescent findings within and developmental recommendations for the Nigerian Mobile Telecommunications Industry. In order to satisfactorily rectify this situation, a thorough investigation of the current reality of this industry was carried out to discover what the status quo really is. This was achieved by interacting and communicating with some of the key stakeholders of this industry and getting acquainted with relevant policy documents. On the whole, the research problem proposed by this study was appropriately addressed by embarking on an in-depth inquiry of societal occurrences.

3.3. Research Design

Merriam (2002) explained that the qualitative research approach consists of certain research designs whose main purpose is to facilitate the understanding of a social phenomenon. These designs include Phenomenology, Grounded Theory, Case Study, Ethnography, Basic Interpretive Study, and Narrative Analysis. This research study primarily aimed at understanding how government and regulatory actions have predominantly shaped the Nigerian Mobile Telecommunications Industry and to do this, the Case Study research design was applied.

3.3.1. Case Study Explained

Yin (2009: 18) defined a case study as "an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident". Baxter and Jack (2008) also explained that the qualitative case study approach to research facilitates the exploration of a phenomenon within its context using a variety of data sources in order to ensure that multiple facets of the phenomenon are revealed and understood. Essentially, case studies focus on understanding phenomena in their entirety and to do this, they depend on contextual and thorough investigations into these social or political events. According to Yin (2009), the unit of analysis is an important component to consider when applying the case study research design. Nor Berg (2001, as cited in Grünbaum, 2007: 84) explained that a unit of analysis "defines what the case study is focusing on (what the case is), such as an individual, a group, an organization, a city, and so forth". In effect, the unit of analysis of a research study is the case which that study is examining and in collecting information about this case, Yin (2009) explained that attention should be paid to the research or study questions. He explained that these questions guide the researcher's data collection process as they prevent him from attempting to cover 'everything' about the case, a task which can be tiring and in most cases, impossible.

3.3.2. Significance of the Case Study Design

Bennett (2004) explained that a major contribution of the case study design is its ability to generate new theories and identify new variables. He explained that case studies are able to do this usually through interviews with participants or area experts and through archival research. Gerring (2004) attributed this path-breaking and generative feature of case studies to their exploratory nature. He stated that, unlike other social science methodology, the case study is not conformist in nature and as such, does not seek to verify or falsify a preexisting hypothesis or set of hypotheses. Instead, the main focus of a research that applies the case study design is to introduce new theories or new perspectives.

3.3.3. Criticisms of the Case Study Design

As with most things that have advantages, the case study design also poses its own set of limitations. Yin (2009) explained that a common concern about case studies is that they provide very little basis for scientific generalization. Unlike other statistical research methods, case studies do not make use of large samples that allow for inferences to be made about an even wider population. Instead, the focus is usually on conducting richly detailed studies of a small number of cases (Bennett, 2004). In his defense of this common criticism of the case study design, Yin (2009) argued that, although case studies are not useful for making statistical generalizations and as such, cannot be generalized to populations or the universe, they are quite effective in the process of analytic generalization, and are easily generalizable to theoretical propositions.

Yin (2009) also stressed that the absence of a substantial amount of methodological texts on case studies is a huge limitation of this qualitative research design. According to him, the lack of clearly defined systematic procedures has often resulted in case study researchers being very sloppy and careless with the research process, an occurrence which is highly unlikely with other methods that possess numerous texts containing well defined research procedures to be followed. As a result, case study investigators have been prone to allow equivocal evidence or biased views to influence the direction of the findings and conclusions.

Another limitation of the case study design observed by Yin (2009) is the length of time required to complete a research study utilizing this research design. As earlier stated, qualitative research is, by nature, time-consuming, and the case study design, which involves rigorous field work, is no different. According to Yin (2009), frequent complaints are made about case studies taking too long to complete and typically producing massive and unreadable documents.

3.3.4. Justification for Applying the Case Study Design

Yin (2009) identified certain conditions that are necessary for researchers to meet in selecting any one research design or method for their research study. In listing the peculiar conditions for opting for the case study design, he explained that the research questions of the study must seek to answer questions of 'how' and 'why'. He further explained that any research investigator using a case study design should have absolutely no control over the actual behavioral events of the study. The last condition which Yin (2009) identified is the study's emphasis on contemporary events as opposed to historical occurrences.

For the purpose of this research study, all the above conditions were met in justification for the application of the case study design. The second sub-question of this study, which captures the main probe of this research, sought to decipher exactly how the government has influenced the industry as a whole. This research was exploratory in nature and sought to uncover occurrences in the single-case of the Nigerian Mobile Telecommunications Industry within the last five years in a bid to recommend relevant developmental strategies. In carrying out this research, the researcher possessed absolutely no ability to control or manipulate behavioral events within the case and consequently had no influence over the anticipated results of the study.

3.4. Data Collection

Yin (2009) explained that evidence collected in a case study research can and should come from many sources. These sources could range from participant-observations, documentation, collection of physical artifacts and archival records, interviews, to direct observations. He emphasized that conducting a research using multiple sources of evidence enables the researcher to develop converging lines of enquiry and eventually produce findings and conclusions that are more convincing and accurate. He also noted that the weaknesses of one source can easily be complemented by the strengths of another when multiple sources of evidence are used. For the purpose of this research, multiple sources of evidence were used in an attempt to obtain accurate information about the government's influence on the operations of the Nigerian Mobile Telecommunications industry.

The researcher gathered primary data for this study through the use of interviews and documentation. In-depth interviews were conducted with relevant executives of three of the industry's service providers; Airtel Nigeria, Etisalat Nigeria, and Globacom, as well as officials of NCC and the Ministry of Communications. The researcher conducted a total of 18 in-depth interviews with key industry representatives. During these in-depth interviews, the researcher posed questions about facts pertaining to regulatory actions, as well as questions that elicited the interviewees' personal insights into certain current occurrences. All information received during the interview process was noted in writing by the researcher and in instances where the individual respondent's consent was given, the information was also recorded with the use of an electronic audio recorder.

In terms of documentation, the researcher analyzed policy documents from the Federal Government and the Ministry of Communications on Cybercrime and Mobile Broadband. These documents provided insights into the mandates, initiatives and policy objectives governing the Mobile Telecommunications Industry and served as a basis for adequately responding to the first sub-question of this study. The researcher also gathered complementary secondary data during the course of this research in the form of sector reports and industry papers. These reports further supported the information obtained from research participants during the interview process.

3.4.1. Sampling

Mugo (n.d.: 1) defined a sample as "a set of respondents (people) selected from a larger population for the purpose of a survey". He further defined sampling as "the act, process, or technique of selecting a suitable sample, or a representative part of a population for the purpose of determining parameters or characteristics of the whole population". In essence, the process of sampling involves selecting an appropriate subset of a larger population in order to obtain relevant information about the population as a whole. In his journal article, Marshall (1996) explained that qualitative researchers typically apply one of three sampling strategies in conducting their research. These strategies are Convenience Sampling, Judgement/Purposeful Sampling, and Theoretical Sampling. Marshall (1996) explained that convenience sampling, which is the least rigorous technique of the three, involves selecting the most accessible research subjects. In contrast, the process of purposeful sampling seeks out the most productive sample or subjects to respond to the research questions proposed by the study. Coyne (1997) explained that the final process of theoretical sampling is deeply rooted in the grounded theory research design and as such, focuses on analyzing qualitative data with the main aim of producing a theory. According to Marshall (1996: 523), "theoretical sampling necessitates building interpretative theories from the emerging data and selecting a new sample to examine and elaborate on this theory". For the purpose of this research, the purposeful sampling technique was applied.

3.4.1.1. Justification for Applying the Purposeful Sampling Technique

Coyne (1997) stated that the sample selection process in qualitative research has a profound effect on the ultimate quality of the research. As such, it is crucial to select a sample that best addresses the core issue of the research study. Due to the fact that the main aim of this research study was not to develop a theory, the use of theoretical sampling would have been irrelevant. The primary focus of this study was on the predominant influence of government activities on the Nigerian Mobile Telecommunications Industry within the last five years. Having established this fact, and deciding to conduct interviews with respondents or individuals mainly because they were readily available, would have defeated the entire purpose and would have utterly failed to provide relevant information concerning this issue. A careful selection of respondents however, due to their years of operational experience within the industry and their positions within the

government and regulatory bodies revealed sufficient information that allowed for a good grasp of the actual events in this industry. As such, the purposeful sampling technique was considered the most appropriate technique to apply in this research study.

3.5. Data Analysis

Basit (2003) stated that the analysis of qualitative data is arduous by nature and involves the dynamic, intuitive and creative processes of inductive reasoning, thinking and theorizing. Thorne (2000) also opined that this process is unquestionably the most complex of all the phases of a qualitative project. As a result, this research study strictly adhered to the phases of qualitative data analysis proposed by Yin (2011) in attempting to effectively deal with all the data gathered during the course of the research.

3.5.1. Step 1 – Compilation

Yin (2011: 182) opined that the compilation process is preparatory in nature and explained that its objective is "to organize your qualitative data in a systematic fashion before formal analysis starts". At this stage, the researcher elaborated on all field notes and jottings made while conducting interviews and developed these jottings into fuller and more comprehensive notes. Given the fact that there was a high possibility of forgetting important parts of the communication long after concluding the interview sessions, the researcher endeavored to detail the entire discussion of each interview as soon as possible, mostly right after parting with the respondent (Yin, 2011). The researcher transcribed recorded interview sessions at this stage as well. Subsequently, the detailed interview notes, interview transcriptions, and all data gathered from the government documents reviewed were compiled.

3.5.2. Step 2 – Grouping Compiled Data

According to Yin (2011), the second phase in the data analysis process entails methodically moving to a higher conceptual level by sorting different items (i.e. interviewees' views and opinions, actions, explanations, observed objects, etc.) into similar and dissimilar groups either through the use of codes or substantive notes. Miles and Huberman (1994: 56) defined codes as "tags or labels for assigning units of meaning to the descriptive or inferential information compiled during a study". After the compilation stage was completed, the researcher began examining the data in an attempt to get better acquainted with all responses given by the research respondents. The researcher then proceeded to assigning codes to each unit of data (i.e. each response), giving similar units the same code. By so doing, a clear system of grouping was attained, with each group containing one code and presenting its own theme. The different themes obtained during this process are clearly presented in the Data Presentation section of this research.

Yin (2011) referred to the codes applied at this level as Open Codes or Level 1 Codes and stipulated that once these codes have been assigned, the next goal is to attain an even higher conceptual level through the introduction of a new set of codes known as the Level 2 Codes or Category Codes. To do this, the researcher re-examined the first set of codes/themes in an attempt to discover how these could be related to one another. Upon discovering that the previously established themes can indeed be linked to one another, the researcher reformed these themes and assigned the newly established themes a new set of codes (i.e. Category Codes). By carrying out this exercise, the initial number of codes was reduced and as such, there were fewer themes. This new set of themes is presented in the Data Analysis section of this research.

3.5.3. Step 3 - Interpretation of Data

Yin (2011: 207) clearly stated that gathered data do not "speak for themselves". He indicated that the ultimate purpose of the Interpretation phase of analysis is to develop a comprehensive interpretation of data using the main themes presented by the data as the basis for understanding. Yin (2011) proposed three modes of interpreting qualitative data. These are by Description, Description plus a Call for Action, and by Explanation. Yin (2011) explained that the

Description method is mainly applied in a study whose core issues have previously not been systematically examined by earlier social scientists. The Description plus a Call for Action method, as the name implies, goes beyond describing and attempts to provoke subsequent action, usually in form of policy changes. According to Yin (2011), the final method of Explanation is solely dedicated to explaining how or why events came about, or how or why people were able to purse particular courses of action.

For the purpose of this research, the Description plus a Call for Action method was applied. As such, the interpretation of the grouped data focused on describing exactly how the Nigerian government has influenced the Mobile Telecommunications Industry and what steps should be taken to facilitate the growth and development of this industry in the long-run.

3.5.4. Step 4 - Conclusion

Yin (2011: 220) defined a conclusion as an "overarching statement or series of statements that raises the findings of a study to a higher conceptual level or a broader set of ideas". At the end of the data analysis phase of this research study, the researcher drew significant conclusions based on the findings of this research. These informed conclusions allowed for valid and relevant recommendations concerning the industry's development to be made.

3.6. Validity and Reliability

The notions of validity and reliability are of utmost importance in any research study. Morse, Barrett, Mayan, Olson, and Spiers (2002: 14) stated that, "without rigor, research is worthless, becomes fiction, and loses its utility. Hence, a great deal of attention is applied to reliability and validity in all research methods." Merriam (1995) explained that the notions of reliability and validity in a research study should be addressed from the perspective of the paradigm out of which the study has been conducted. She explained that a qualitative research ideally seeks to clarify or understand a phenomenon, build a theory or hypothesis, determine the history of a situation, and find creative approaches to look at over-familiar problems. As such, in attempting

to prove validity and reliability, and in essence, the trustworthiness of a qualitative study, the strategies employed need to be grounded in the qualitative or interpretive worldview.

3.6.1. Internal Validity

Buston et al. (1998) explained that in qualitative research, internal validity is regarded as the credibility of the study. According to Miles and Huberman (1994), internal validity refers to the truth value of a research study. Merriam (1995) explained that the method of Triangulation, which involves making use of multiple sources of evidence or multiple investigators, would help ensure that the reality of a situation is being conveyed as truthfully as possible. She further stated that a method of Peer or Colleague Examination where peers or colleagues are asked to examine the research data and the plausibility of the findings also strengthens the credibility of the research.

For the purpose of this research, both methods of Triangulation and Peer/Colleague Examination suggested by Merriam (1995) were applied in strengthening internal validity. The data for this research was collected using the Interview and Document Analysis Techniques. These two sources of evidence balanced each other out and enhanced the credibility of the gathered data. The researcher also sought the inputs of colleagues concerning the interpretation of the collected data. Throughout the research process, the researcher consulted with a supervisor and took note of every suggested alteration with respect to the data collection and data analysis processes.

3.6.2. Reliability

According to Merriam (1995), the reliability of a research study is concerned with the extent to which the study's findings will be repeated. She noted that quantitative researchers assume a static reality and make use of objective measures in investigating this reality in order to obtain findings. Merriam (1995: 55) opined that for quantitative researchers, "the more times the findings of a study can be replicated, the more stable or reliable the phenomenon is thought to be". Buston et al. (1998) however explained that qualitative researchers, unlike their quantitative

counterparts, believe in an ever-changing social context and as such, the concept of replication is flawed.

Lincoln and Guba (1985, as cited in Merriam, 1995) explained that qualitative researchers strive to attain dependability or consistency, as opposed to reliability. They emphasized that the concern in qualitative research is not whether the results or findings of many studies of a phenomenon are the same, but instead, the focus is on whether the results of a study are consistent with the data collected. Merriam (1995) explained that reliability, or in the case of qualitative research, consistency, can be strengthened using either the Triangulation method, the Peer Examination method, or the Audit Trail method.

The triangulation and peer examination methods which were applied in this study to strengthen internal validity were also used to attain consistency and dependability. The researcher detailed the entire data collection and data analysis processes of this study in an attempt to achieve transparency and allow for the auditability of the research.

3.6.3. External Validity

Merriam (1995) noted that the issue of external validity or generalizability has to do with the extent to which the findings of a study can be applied to other situations. She went on to introduce the concept of reader or user generalizability as a way of viewing external validity in qualitative research. According to Payne and Williams (2005), user generalizability is dependent on the researcher's ability to prove internal validity. By proving that the research is true to reality and possesses high quality, the researcher provides readers with accurate findings and leaves it up to them to decide if such findings are transferable to other settings. In order to strengthen external validity, Merriam (1995) proposed the "Thick Description" method. This method involves providing ample information about a phenomenon under study and adequately describing the phenomenon in order to enable readers determine the similarities between that particular phenomenon and other phenomena and hence, determine whether the research findings can be transferred. The researcher applied this method during the course of the research by providing sufficient information on developments within the Nigerian Mobile Telecommunications Industry.

3.7. Significance of the Research

This research study aimed to examine how the government, through its policies and actions, has predominantly influenced the Nigerian Mobile Telecommunications Industry within the last five years (i.e. 2011 - 2015). This task was accomplished by reviewing government policy documents on the two major issues of Cybercrime and Mobile Broadband, conducting interviews with numerous actors within the telecommunications industry, and examining various industry reports. The knowledge obtained from interacting with industry players and analyzing relevant government documents and texts served a greater purpose of recommending and somewhat, advising, on what path to take in order to ensure the growth and sustenance of the industry in the long-run. The significance of undertaking this research inquiry goes beyond merely discovering what is in the Nigerian Mobile Telecommunications environment. Instead, the primary relevance of this exercise lies in establishing what should be in the industry, and more importantly, drawing from the voice of the industry's key plyers to suggest how this ideal state can be achieved.

3.8. Limitations of the Study

In conducting this research, there were certain obstacles that hindered the researcher's access to data. The researcher attempted to schedule interviews with government and regulatory officials, as well as organizational leaders, who were not always readily available to partake in the interview sessions. This situation resulted in a delay in the data collection process and in essence, in the completion of the entire research. Also, some of the interview respondents for this research had very tight work schedules. The implication of this was that, upon gaining access to these individuals, the researcher was permitted a short amount of time to conduct the interviews. The time allowed in some instances was not always sufficient to obtain detailed responses to the in-depth and open-ended questions.

The researcher interacted with individuals who are highly placed in the society. These research participants were not always very forthcoming with their responses in an attempt to protect their respective positions or reputations. As such, satisfactory responses were not always given to all

the questions. The issue of truth, with relation to the responses given, also came into play. Due to the fact that some respondents, who were government representatives, preferred the industry's governing authorities to be portrayed in a particular light, the truthfulness and validity of their responses came into question. With respect to the analysis of government documents, the researcher could not obtain certain industry documents (i.e. project progress reports) which could have influenced the conclusions of this study because these documents did not exist.

A final major limitation of this research study was that the researcher was able to interview representatives from only three of the four telecommunications operators namely; Airtel Nigeria, Globacom, and Etisalat Nigeria. Although representatives from the market leader, MTN Nigeria, were contacted to participate in this study as their input would have been vital to the research findings, this was not possible due to the on-going legal issues this operator had with the national regulator, NCC, at the time this research was being conducted.

3.9. Ethical Considerations

Hammersley and Traianou (2012: 16) defined Ethics as "a set of principles that embody or exemplify what is good or right, or allow us to identify what is bad or wrong". They clarified that the meanings of the words 'good' and 'right' are solely derived from the particular context within which they are used. Hammersley and Traianou (2012: 16) then went on to define Social Research Ethics as "the study of what researchers ought and ought not to do, and how this should be decided". According to Orb, Eisenhauer, and Wynaden (2001), qualitative research is typically plagued by different kinds of ethical issues. In order to address these issues or difficulties, they explained that researchers need to be aware of certain well-established ethical principles and apply them properly in the course of their research.

During the course of this research, the researcher observed the ethical principles of Autonomy, Informed Consent, Confidentiality, and Anonymity. Before the commencement of the data collection stage, the researcher ensured that all the research respondents, government officials and telecommunications executives alike, had a thorough understanding of the purpose of the research, as well as of the researcher. This information was contained in an Introductory Letter and a Participant Information Sheet. Thereafter, the respondents were allowed to voluntarily

consent the process. A consent form was made available to the respondents to ensure that their agreement to carry on with the process (if so) was stated in writing. A separate consent form was provided to respondents to obtain their formal consent to the audio recording of all information supplied during the interview. Participants were allowed to avoid providing responses to questions which they felt uncomfortable about or withdraw from the entire process at any point in time if deemed necessary without suffering any adverse consequences.

In order to protect the data gathered, the researcher ensured that all field notes and electronic audio recorders containing raw data were kept safe. Laptops and other technological devices that were used to store data during the research process were locked with passwords known only to the researcher. The researcher also ensured that the interests of the research participants were protected through the application of anonymity. In order to ensure that no harm was done to respondents' reputations or job positions, their identities were protected through the use of numbers. As such, the research respondents were referred to as Informant 1, Informant 2, Informant 3, and so on, throughout the research. All information obtained from the interviewees was solely used for the purpose of this research.

CHAPTER FOUR

DATA PRESENTATION

This chapter focuses on systematically presenting the data collected through the two research techniques of Documentation and Interviews. In this section, the techniques applied by the researcher in responding to the first two sub-questions of this study are clarified.

4.1. Summary of Research Problem

There have been studies carried out on the development of the Nigerian Mobile Telecommunications Industry in relation to the actions and interventions of the industry's governing authorities (Onwumechili, 2001; Adomi, 2005; Ajiboye et al., 2007). These studies, taking the then facts of the industry into consideration, reached conclusions, and thereafter, made recommendations as to how the industry can be further developed. Over the years however, the nature of this industry has changed immensely and new facets have sprung up. There are currently no studies that suggest how the Mobile Telecommunications Industry, given its new reality, can be further developed to benefit all its stakeholders. As a result, this has necessitated new investigations into the industry, particularly investigations into what influence the Nigerian government currently has on the industry's growth. The significance of these investigations is to subsequently provide noteworthy suggestions as to how the status quo of the industry can be improved upon in the long-run.

4.2. Documentation

The process of Documentation was applied in response to the first sub-question of this study:

- What are the existing initiatives and policy objectives within the Nigerian Mobile Telecommunications industry with respect to Cybercrime and Mobile Broadband?

The following government documents were collected for the purpose of analysis:

- **National Information and Communication Technology (ICT) Policy, 2012**

This policy document, written by the Ministry of Communications, consists of policy objectives covering the entire Information and Communication Technology (ICT) sector of Nigeria. It breaks down the different policies governing the various sub-sectors of the country i.e. Broadcasting, Telecommunications, Postal Services, and Information Technology.

- **Nigeria's National Broadband Plan 2013 – 2018**

The National Broadband Plan (NBP), a policy document presented by the country's Presidential Committee on Broadband, contains the various broadband policies and initiatives set up by the Nigerian government to tackle the challenges faced by telecommunications service providers within the industry, promote pervasive broadband deployment, and ensure the availability and affordability of broadband services.

- **Cybercrime Act, 2015**

The Cybercrime Bill of 2013 was passed into law in 2015 and then became the Cybercrime Act of 2015. This Act was enacted by the National Assembly of the Federal Republic of Nigeria to clarify what criminal offenses constitute Cybercrimes within the country, and also serve a reference for prosecuting cyber criminals.

- **The 8-point Agenda, 2016**

On 27th January, 2016, the Executive Vice Chairman (EVC) of the Nigerian Communications Commission unveiled an "8-point Agenda" which was meant to guide the operations of the Commission with respect to Broadband for the five-year period of 2015 – 2020. This final government document will also be analyzed during the course of this research and as a result of its release date, it will be regarded as an element which was introduced to the Mobile Telecommunications environment after the commencement of the fieldwork of this research.

4.2.1. National Information and Communication Technology (ICT) Policy

The National ICT Policy serves as an all-inclusive government document which explains the Nigerian government's proposed policy objectives for the country's fast growing ICT sector. For the purpose of this study however, only the relevant Telecommunications policy objectives will be documented for critical analysis.

Policy Objectives

In the National ICT Policy document, the Nigerian Communications Commission (NCC) is recognized as the independent regulatory authority for the Telecommunications Industry whose objectives include:

- Creating an enabling regulatory environment to facilitate the supply of telecommunications services and facilitates;
- Promoting fair competition and efficient market conduct among all players in the industry;
- Establishing the Universal Service Provision Fund to promote the widespread, availability and usage of network services and application services throughout Nigeria (Ministry of Communications, 2012: 15).

As seen from the above, a major objective of the NCC is to promote the availability and use of telecommunications services across the country. However, the achievement of this goal is largely dependent on the telecommunications infrastructure available within the country.

In the National ICT Policy, the government acknowledged that "the relative paucity of ICT infrastructure in the country has greatly hindered the provision of efficient and affordable ICT services to the citizens, and had adversely affected the socio-economic development of Nigeria" (Ministry of Communications, 2012: 28). In a bid to address this predicament, the government listed some of its objectives and strategies as:

- Facilitating and supporting development of efficient and secure nationwide ICT infrastructure that will support national broadband connectivity and accelerate socio-economic development;

- Supporting the accelerated deployment of fiber optic and wireless backbone infrastructure that ensures high bandwidth availability, and universal access throughout the country; and
- Ensuring appropriate security for ICT infrastructure nationwide (Ministry of Communications, 2012: 29).

It is evident from the policies contained in the National ICT Policy document that the main telecommunications services which the government intended to promote nationwide are Internet and Broadband. According to the Ministry of Communications (2012: 29), "Internet and Broadband have been globally acknowledged as a critical pillar [sic] for transformation to a knowledge-based economy." As such, the Nigerian government set its major objectives as:

- Fostering broadband usage for national development;
- Providing periodic review of the broadband penetration targets in order to determine further action for broadband expansion;
- Extending universal access/service nationwide in the shortest possible time; and
- Evaluating existing funding mechanisms to improve efficient use of resources in pursuit of universal access/service (Ministry of Communications, 2012: 30).

The issue of National Security was also highlighted in the National ICT Policy document. According to the Ministry of Communications (2012: 41), "ICT has the potential to significantly enhance the safety of lives and property in Nigeria." The government went on to identify objectives such as enhancing crime detection and protecting the rights and privacy of citizens as key targets. To achieve this, it listed some of its strategies as:

- Ensuring capacity development of its institutions and collaborating with regional and international agencies to contain cyber crimes;
- Ensuring that laws relating to ICT offences are periodically reviewed and enforced; and
- Ensuring the protection of ICT Infrastructure which serves as Critical National Infrastructure (Ministry of Communications, 2012: 41).

With a view to ensuring that Nigerian telecommunications, and the country's ICT sector in general, attains sustainable development and competitiveness, the government identified the need for continuous research and development. According to the Ministry of Communications (2012: 43), "Research is necessary for the technological development of the nation and for reaping the enormous benefits that exist in the ICT sector of the economy." Noting the fact that Research and Development in the specific area of ICT is very minimal in Nigeria, the government stated its intention to address this issue by:

- Ensuring that by the end of 2015, a National Research and Development Agenda would have been developed and approved; and
- Setting, reviewing, and implementing guidelines for ICT research and development initiatives (Ministry of Communications, 2012: 44).

4.2.2. Nigeria's National Broadband Plan 2013 - 2018

The National Broadband Plan (NBP) 2013 – 2018 is a telecommunications policy document in which the Nigerian government assessed the current state of Broadband in the country, identified the challenges faced by service providers, and presented strategies for addressing the industry's inadequacies. In the NBP, the government started off by acknowledging the crucial role of Broadband in achieving the country's Vision20: 2020. According to the Presidential Committee on Broadband (2013: 26), the Vision20: 2020 "reflects the intent of the Federal Republic of Nigeria to become one of the top twenty economies in the world by the year 2020, with a principal growth target of no less than $900 billion in GDP and a per capita income of no less than $4000 per annum." However, without pervasive Broadband access, the government asserted that the actualization of this vision will be improbable. In the NBP, the government constantly reiterated the fact that Broadband is a telecommunications service that aids the smooth functioning of pertinent sectors of the Nigerian economy such as Education, Health, Agriculture, Commerce, and Entertainment. As such, the ultimate goal of the government is to ensure the "rapid proliferation of mobile broadband across the whole country and the consolidation of all broadband impacting initiatives under a single well-coordinated plan of action" (Presidential Committee on Broadband, 2013: 23).

Policy Objectives

The Nigerian government made use of the national NBP to put forth its administrative and regulatory priorities with regard to the nationwide provision of Broadband services. In this document, the government explained that its main concerns are:

- Taking all necessary steps to address the enactment of a national cybersecurity law to ensure adequate legal protection of broadband internet users from identity theft, privacy violation, fraud, defamation, online bullying and abuse of confidentiality;
- Monitoring the implementation of the national broadband plan and reporting regularly on the status of implementation of this plan and undertaking relevant studies on the impact of broadband on national development;

- Taking all the necessary steps to promote the accelerated deployment of ICT/ Broadband infrastructure, including the removal or reduction of taxes and levies; as well as streamlining of the pre-deployment approval processes and other bottlenecks that can retard accelerated deployment; and
- Maintaining a level playing field in the market in order to encourage competition and new investments in broadband infrastructure (Presidential Committee on Broadband, 2013: 77).

Asides from these regulatory Broadband priorities, the government went on to identify more specific courses of actions which it intends to take in response to the numerous challenges of Broadband operators. According to the Presidential Committee on Broadband (2013), the habitual challenges of multiple and illegal regulation and taxation at different levels of government, unreliable electricity supply, poor security of infrastructure, investment and funding shortages, and underutilization/non-utilization of spectrum will be addressed by:

- Establishing critical national infrastructure & cyber security;
- Developing clear policy, regulation, and roles for the government;
- Promoting enabling national infrastructure;
- Employing an Open Access Model for Network Infrastructure;
- Optimising spectrum utilization; and
- Providing required investment (Presidential Committee on Broadband, 2013: 59).

Government Initiatives on Broadband

In the NBP, the Nigerian government identified certain Broadband initiatives which seek to enhance Broadband availability and usage in the country. The execution of these initiatives is to be judiciously monitored by the Nigerian Communications Commission. The initiatives are presented in the table below:

Initiative	Wire Nigeria (WiN) Project	State Accelerated Broadband Initiative (SABI)	Universal Service Provision	The Digital Bridge Institute (DBI)	Digital Awareness Programme (DAP)
Aim	To facilitate the build out of fibre optic cable infrastructure.	To stimulate demand for internet services and drive affordable home broadband.	To provide ICT access in unserved and underserved areas.	To increase the number of skilled Nigerian manpower in the ICT sector.	To encourage the use of ICT in primary, secondary and tertiary institutions.
Mechanism	Subsidies based on per kilometer of fiber and incentives to encourage rapid deployment of on non-commercially viable routes.	Subsidy on terminal equipment based on broadband infrastructure deployed in state capitals and urban and semi- urban centers.	Subsidies to the private sector.	ICT training for over 2,000 local and international students per annum.	Supply of computers and internet facilities to educational institutions for basic ICT training for teachers and students.

Table 1. NCC Initiatives. Adapted from *Nigeria's national broadband plan 2013 – 2018* (p. 101).

The five Broadband initiatives presented by the government for implementation by the NCC serve as different strategies for achieving the same goal; enhanced nationwide Broadband penetration and utilization. The Wire Nigeria (WiN) and Universal Service Provision initiatives focus on ensuring that important Broadband infrastructure is deployed to all areas of the country, including areas where this critical infrastructure has never been set up. The Digital Bridge

Institute (DBI) and Digital Awareness Programme (DAP) take it a step further by seeking to ensure that this infrastructure, after being provided, can be properly used and operated by individuals within the community.

National Broadband Council

In the Nigerian National Broadband Plan, the federal government explained that "for any plan to be effective it must be monitored, and the success of the program evaluated" (Presidential Committee on Broadband, 2013: 72). As such, the government introduced the idea of instituting a National Broadband Council (NBC) whose responsibility will be to monitor the implementation of all the policy objectives and strategies contained in the NBP. According to the Presidential Committee on Broadband (2013: 18), "The Minister of Communications Technology shall establish a Broadband Council to provide periodic evaluation of progress, facilitate coordination and collaboration, and highlight areas of program adjustment to permit the realization of new and emerging opportunities. Also, the Council shall be the forum for relevant agencies to discuss and fine-tune implementation strategies, assign responsibility for joint duties, share best practices and coordinate broadband funding so that government spending on broadband has maximum economies of scale and maximum impact."

The NBP touched on the issue of government accountability with regard to Broadband and stated that this obligation will also be fulfilled by the NBC. The Committee went on to emphasize that the Council "shall ensure that a six-monthly periodic assessment is published to report where the country stands in broadband deployment, adoption and utilization; in benchmarked competition across networks, devices and applications; and in how effectively national priorities embrace the power of broadband. The government recognizes the need to measure progress and adjust programs to improve performance in a manner that will permit the realization of new and emerging opportunities" Presidential Committee on Broadband (2013: 67).

In a bid to follow through on its promise of accountability, the government presented a set of Key Performance Indicators (KPIs) which is to be monitored and reported on by the Broadband Council. These KPIs are shown in the table below;

KPI ID	KPI Description	Baseline (Jan. 31, 2013)	Mar. 31, 2013	June 30, 2013	Sept. 30, 2013	Dec. 31, 2013	Mar. 31, 2014	June 30, 2014
1	Percentage of National Population with access to 3/4G Mobile Internet Service							
2	Percentage of National Population with access to Fixed Broadband Internet Service							
3	Number of active Public Access Points							
4	Average price of 3/4G mobile internet subscription							
5	Average price of Fixed Broadband internet subscription							
6	No of households in all major cities without broadband							
7	Average Broadband Speed							

Table 2. Key Performance Indicators. Adapted from *Nigeria's national broadband plan 2013 – 2018* (p. 72).

The table displays key performance areas which are to be the focus of the National Broadband Council. It also indicates that the Council will have to report on the improvement in these areas on a three-month basis to ensure that effective progress is being made.

4.2.3. Cybercrime Act, 2015

The Cybercrime Act of 2015 serves as a legal guide for handling cybercriminal offences perpetrated within the Federal Republic of Nigeria. By enacting this Cybercrime law, the government explained that its main objectives are:

- Providing an effective and unified legal, regulatory and institutional framework for the prohibition, prevention, detection, prosecution and punishment of cybercrimes in Nigeria;
- Ensuring the protection of critical national information infrastructure; and
- Promoting cyber security and the protection of computer systems and networks, electronic communications, data and computer programs, intellectual property and privacy rights (Cybercrime Act, 2015: 1).

In the Act, the government clearly acknowledged the fact that Cybercrimes, which are Internet related crimes, are exclusively committed through the use of various telecommunications devices and infrastructure. As such, it went on to state that "the President may on the recommendation of the National Security Adviser, by Order published in the Federal Gazette, designate certain computer systems, networks and information infrastructure vital to the national security of Nigeria or the economic and social well being [sic] of its citizens, as constituting Critical National Information Infrastructure" (Cybercrime Act, 2015: 3).

In the Act, the government methodically broke down what constitutes a Cybercrime and identified 14 major offences publicly recognized as cybercriminal activities. These are:

- Offenses against critical national information infrastructure;
- Cyberstalking;
- Cyberterrorism;
- Cybersquatting;
- Computer related forgery;
- Identity theft and impersonation;
- Computer related fraud;
- Child pornography and related offenses;
- Misuse of telecommunications devices;
- Racist and xenophobic offences committed through the telecommunications systems;

- Unauthorized modification of computer program or data;
- Unlawful access to a computer;
- Unlawful interception of communications; and
- System interference (Cybercrime Act, 2015: 5).

The Act explicitly stated that an attempt or conspiracy by an individual or corporate body to commit any of the offences above is equivalent to an actual perpetration of these crimes and will be treated as such.

The Cybercrime Act of 2015 established the Cybercrime Advisory Council, a body whose main responsibility is to suggest measures through which computer related offences and threats to national cyberspace can be prevented and combatted. This Council is to comprise of representatives of relevant government Ministries, Departments and Agencies, one of which is the Nigerian Communications Commission (NCC).

Asides from the Cybercrime Advisory Council, the Act also authorized service providers within the Telecommunications Industry to perform activities such as intercepting traffic data and recording Internet subscribers' information so as to aid criminal investigations undertaken by government instituted law enforcement agencies.

4.2.4. The 8-Point Agenda

The Nigerian Communications Commission [NCC] (2016) unveiled an 8-Point Agenda early in 2016 as a means of reassuring telecommunications stakeholders of its commitment to enhancing Broadband availability and usage in the country. The strategic objectives listed in the 8-Point Agenda are:

- **Facilitating Broadband penetration** by promoting the deployment of universally available, fast and reliable network infrastructure;
- **Improving quality of service** through improved oversight/internal controls and facilitation of active infrastructure sharing amongst telecoms operators;
- **Optimizing usage and benefits of spectrum by d**eveloping and implementing flexible, market-oriented spectrum regulation policies;
- Promoting **ICT innovation and investment opportunities** by fostering increased strategic support for technology startups and SMEs;
- **Facilitating strategic collaboration and partnership** with government MDAs, communities and relevant local and international non-state actors to advance the use of ICT for Development (ICT4D);
- **Protecting and empowering consumers by** educating and informing them in their use of communications services;
- P**romoting fair competition and inclusive growth** through regulations that ensure strict compliance to obligations imposed on dominant operators in ways that stimulate the growth and sustainability of smaller players;
- **Ensuring regulatory excellence and operational efficiency** by strengthening regulatory and operational systems and processes in ways that make them more result-oriented in order to improve efficiency, effectiveness and stakeholder satisfaction (NCC, 2016).

According to the EVC of the NCC, Umar Garba Danbatta, the successfully actualization of this government Agenda will enable the Commission fulfill its strategic vision of promoting "innovation, investment, competition and consumer empowerment in and on top of the communications platforms of today and the future – maximizing the power of information and communications technology to grow our economy, create jobs and enhance national

competitiveness through deployment of broadband infrastructure to facilitate the rollout of broadband services that will hold out opportunities and higher network quality of service for all Nigerians" (NCC, 2016).

The information obtained from the four policy documents presented above paints a clearer picture of what government policy objectives and initiatives currently exist in the Nigerian Mobile Telecommunications Industry with respect to Mobile Broadband and Cybercrime and as such, provides a satisfactory response to the first sub-question of this research study.

4.3. Interviews

Interviews were conducted with a total of 18 respondents during the research process in order to address the second sub-question of this study:

- How have the government's actions in the areas of Cybercrime and Mobile Broadband in the last five years influenced the growth of the industry as a whole?

Eight interview questions were formulated to give a satisfactory response to the above research sub-question (See Appendix A). The interviewees responded to the questions in the following capacity;

Informants 1 to 9; 11 to 14 – as telecommunication operators or service providers

Informants 10; 17 and 18 – as representatives of the Nigerian Communications Commission

Informant 15 and 16 – as representatives of the Ministry of Communications

<u>Question 1</u>: Of what significance is the Nigerian Mobile Telecommunications Industry to the country's overall development?

The responses provided to this interview question were completely unanimous with a 100% consensus by the respondents. Informants 1 – 18 clearly expressed the view that the Nigerian Mobile Telecommunications Industry is significant to the country's overall development.

> According to Informant 9 (8 March 2016), "*The Nigerian Mobile Telecommunications segment represents over 95% of the Nigerian Telecommunications Industry and as such, the successes and significant milestones recorded in the Nigerian Telecommunications Industry were mainly driven by the Mobile segment of the Industry*." The Informant went on to explain that the Mobile Telecommunications segment has greatly facilitated the growth of other sectors.

This was supported by Informant 1 (15 February 2016) when he described the industry as the "*social capital overhead*" on which other sectors such as health and banking rely to function. Informant 1 (15 February 2016) further explained that the industry currently contributes "*10,000 direct jobs and 1.3million indirect jobs in the form of all the people in the ecosystem such as the wholesalers, trade partners, phone manufacturers, government controllers, and so on*."

By relying on available statistics, Informant 4 (23 February 2016) justified how significant the Mobile Telecommunications Industry is to the country's development. According to him, "*the revenue from investments in the telecoms industry between the years 2000 and 2016 is over $15 Billion, thereby making Nigeria one of the most competitive markets in Africa.*"

Informant 5 (24 February 2016) further described the industry as "*an enabler of the growth and development of Nigeria because broadband directly contributes to GDP increase*."

To support this, Informant 11 (10 March 2016) referenced a study on the nexus between Broadband & Telephony and GDP. He explained that the study indeed showed a "*high positive correlation between the penetration of Broadband & Telephony and GDP growth*."

In referencing reports released by the National Bureau of Statistics, Informant 18 (17 March 2016) put the GDP contribution of the industry at N1.39 trillion as at the end of the third quarter of 2015.

<u>Question 2</u>: In your opinion, what elements are necessary to ensure the sustained growth and development of the Nigerian Mobile Telecommunications Industry?

The responses to this question highlighted the different concerns of the interview participants about the current situation of the Mobile Telecommunications Industry. These concerns made up different themes as can be seen below.

> Informant 1 (15 February 2016) explained that "*the elements necessary to ensure the sustained growth of the mobile telecommunications industry will emanate from what has been going wrong within the industry which has been constraining growth.*"

- **Multiple Taxation and Regulation**

> Informant 1 (15 February 2016) went on to highlight multiple taxation and multiple regulation as issues that have plagued the industry in recent times. According to him, "*the states currently see the telecoms sector as a cash cow, so anytime they are about to introduce a new tax, whether it is backed by law or not, the first target is the telecommunications sector*."
>
> Informant 5 (24 February 2016) said, "*Telecommunications companies pay 2.5% of their revenue (not profit) every three months to the Nigerian Communications Commission. Then there is the case of all state governments in Nigeria asking for all sorts of levies. In some states, you have two agencies of the state asking for the same payment. Often at times, telecommunication companies are not given enough time to pay up before their sites are shut down. The government is currently contemplating more taxes. There is a Telecommunications Consumer Tax Bill that is being read at the National Assembly so even more taxes are coming*."
>
> Informant 11(10 March 2016) stated that "*operators are generally constrained when it comes to carrying out their activities as a result of multiple taxation from state, local, and federal governments. Governments should set up laws to address this situation*."

Informant 1 concluded that "*there is a need for a firm affirmative action from government to clearly define taxes that should apply to the sector*."

With respect to Multiple Regulation, Informant 1 explained that "*a lot of regulatory agencies seek to control telecommunications operators because of the growth of the sector, irrespective of the fact that there is a national regulator that has that responsibility*." He noted instances where different government agencies other than the NCC sealed up telecommunication sites on account of a breach of laws without consulting with the national regulator. According to the Informant, "*these kind of issues take the industry back and the industry then experiences uncertainty in the areas of regulation*."

To address this issue, Informant 7 (1 March 2016) proposed more "*commitment on the part of the federal government and its agencies towards a free and open market system in the mobile telecommunications sector*."

- **Infrastructure and Security**

Informant 5 (24 February 2016) explained that the telecommunications market leader, MTN Nigeria, controls certain facilities and, unlike in most developed countries, it is not required by law to share these facilities with other operators.

Informant 11 (10 March 2016) proposes that the government ought to "*set up policies and law that compel industry players to share infrastructure in order to help reduce the costs to a single operator*."

Informant 14 (10 March 2016) further specified that the government needs to ensure that there is "*a common duct for all operators which will reduce the amount of broadband fibre laid across the country and also reduce costs to operators by virtue of the shared infrastructure*."

According to Informant 3 (22 February 2016), the security of telecommunications infrastructure is another problem which adds to the cost of operation for telecoms operators.

Informant 9 (8 March 2016) also pinpointed that the "*outright sabotage and theft of telecommunications facilities are occasioning quality service issues in the industry*."

To address this, Informant 4 (23 February 2016) suggested that it is imperative for the industry to have "*a policy which makes it essential for all telecoms structures to be regarded as national assets. Although the Cybercrime Act tries to address this issue, telecoms infrastructure still has not been declared as such. The moment the government officially declares all telecoms infrastructure as Critical National Infrastructure, it then becomes a crime to interfere with any facility of any telecoms company. It is important protect telecommunications structures because, for every interruption or damaged done, other sectors in the country are affected*." Informant 4 unhappily expressed that, "*as a Nigerian telecoms operator, if my KPI standards reflect world best practices, then these infrastructural challenges that are non-existent in other parts of the world need to be rectified for me to meet those standards*."

- **Power**

According to Informant 3 (22 February 2016), one of the major hindrances to the growth of the mobile telecommunications industry is Power. He explained that the lack of constant electricity in the country "*adds to the cost of doing business as a lot of money is spent on procurement of power generating sets, fueling and maintenance*."

Informant 4 (23 February 2016) added that, "*for every base station in Nigeria, there is a minimum of two generators powering each. These high operating costs within the industry as a result of lack of power need to be addressed by the government*."

- **Spectrum**

In terms of broadband advancement, which is core to the growth of the Nigerian mobile telecommunications industry, the Informants expressed the view that the government needs to ensure that the necessary spectrum is utilized and allocated properly.

According to Informant 1 (15 February 2016), it is currently impossible for operators to launch 4G Broadband due to the unavailability of the necessary spectrum. He explained that, "*due to Nigeria's inability to meet the 2015 analogue to digital migration deadline set by the ITU, the spectrum that should have been freed up for 4G Broadband is still not available to telecommunications operators*."

Informant 5 (24 February 2016) explained that this 700MHz spectrum, which resides with the Broadcasting Industry, has not been moved to the Mobile Telecommunications industry as agreed in an International Treaty.

Informant 1 (15 February 2016) explained that "*the issue of spectrum needs to be looked into because without spectrum, operators cannot deliver on 4G which is the next in line of growth for the industry. We moved from 2G to 3G and now the problem is moving on to 4G, and this is a key drawback*."

- **Competition and Cooperation**

In reiterating the dominance of the market leader, MTN Nigeria, Informant 5 (24 February 2016) expressly noted that "*Nigeria doesn't have well developed competition laws and the competition in the Nigerian telecommunications space is very steep*." According to him, "*there are four major operators in Nigeria and there are lot of competition problems in the Nigerian telecommunications space that people don't see. For instance, you have a company that controls 40% market share, and controls 80% of value share (.i.e. profitability). As such, a lot of telecommunications companies are struggling. The NCC recently declared about ten companies inactive. Although these companies had all the resources at their disposal, they couldn't launch services. A lot*

more companies will fold up unless something is done to ensure that profitability and market share is better distributed within the industry."

Informant 18 (17 March 2016) and Informant 9 (8 March 2016) expressed the importance of cooperation between the various government agencies, and also between the different levels of governments. The latter explained that certain Right of Way (RoW) approvals obtained from Federal Government agencies allowing telecoms operators to dig up roads and lay broadband fibre are still not recognized by State Government agencies. As such, the deployment of network infrastructure is greatly hampered. According to Informant 18, "*the cooperation of inter-government agencies is necessary to sustain the growth and development of the industry*."

- **Involvement and Transparency**

Informant 17 (17 March 2016) emphasized the fact that, amongst other things, there has to be frequent communication between the government and all the industry players if the mobile telecommunications industry is to grow beyond what it currently is. He explained that the government needs to hold meetings with current telecoms licensees and operators to discuss concerns that they have, as well as issues affecting their market.

Informant 11 (10 March 2016) also expressed the need for higher transparency with respect to government actions. According to the Informant, "*the government needs to create higher visibility with respect to their actions. A lot of things go on in the industry that are not evident and this also stifles the growth of the industry*."

Conclusively, Informant 11 advocated for the provision of an overall enabling environment by the government. He stated that, "*the government needs to create an enabling environment for mobile telecommunications due to the hunger for connectivity and access. This environment will come in the form of security, infrastructure, power and roads which are currently provided by the operators themselves, thereby resulting*

in high costs of operation. It's about time that the government begins to provide these for the industry, and also, regulate the industry properly. Operators pay as much as 300 million dollars to get a license to operate in the country, and as such, the government needs to fulfil their own end of the bargain by providing an enabling environment."

<u>Question 3</u>: The Nigerian Senate passed the Cybercrime Bill into law in order to eliminate electronic fraud and other cyber related crimes. What actions have been taken by the Nigerian Communications Commission as a member of the Cybercrime Advisory Council, and the government as a whole to ensure that the bill effectively achieves its objectives with respect to the Mobile Telecommunications Industry?

The participants had different responses to this interview question. Their varied responses not only succeeded in establishing different themes, but also, in highlighting some foundational issues with the government's policy formulation and implementation processes.

- **Government Actions**

In response to the actions taken by the government so far, Informant 1 (15 February 2016) stated that, "*the NCC has done a lot in this area. The Commission now has a Cybersecurity Unit which hitherto, wasn't there*." He went on to explain that the objectives of this unit include educating people on Cybercrime and carrying out sensitization workshops for the telecommunications operators.

This was also supported by Informant 10 (9 March 2016), a representative of the Commission, when he stated that, "*NCC has started implementing strategies for cyber security awareness and creating awareness programs for all stakeholders*."

- **Lack of Implementation and Continuity**

In contrast to the above views, Informant 5 (24 February 2016) expressly said, "*to be honest, I don't think the NCC is really pushing anything with respect to the fight against Cybercrime*."

Informant 8 (2 March 2016) added that "*I am not aware of any action taken so far*."

Informant 15 (10 March 2015), a representative of the Ministry of Communications, while admitting that the Ministry has not done much as regards the implementation of the Cybercrime Act, stated that, "*the Ministry is only now trying to create awareness of what exactly the Act covers*."

According to Informant 14 (10 March 2016), "*The federal government has done the right thing by passing this Act. However, I haven't heard much about the enforcement of this Act by the administrative arm*."

In expressing his lack of confidence in the government, Informant 11 (10 March 2016) also added that, "*The Act serves as a reference for cyber related crimes and their penalties. It is good that there is a piece of legislation which codifies this and speaks to order and states the consequences of criminal offenses. However, there has been no enforcement of this piece of legislation so far. Enforcement and implementation have always been the bane of legislation in Nigeria. No actions have been taken by any government agencies to prove that this Act will be any different from other laws previously passed with regard to implementation. This might sound pessimistic, but I'm talking from experience of how things have previously been done in the country*."

In attempting to justify the Commission's failure to act, Informant 2 (17 February 2016) explained that, "*The Cybercrime Act was enacted towards the end of the life of the previous government and I'm not sure so much has been done about it. With respect to the Cybercrime Advisory Council, I don't feel that much has been done either. It may be as a result of the change in government. The new President appointed a new Minister of*

Communications a few weeks ago and the Executive Vice Chairman of the NCC was also appointed in September. As such, there has been a bit of transition in the sector and that may be the reason why nothing major has been done."

- **Issue of Law Formulation**

Some responses given by participants also highlighted the fact that the Cybercrime Act in itself is not an entirely comprehensive piece of legislation.

Informant 5 (24 February 2016) explained that "*the Cybercrime Act is not the best written law*", a point which was supported by Informant 4 (23 February 2016) when he said, "*The Cybercrime Act is a piece of legislation that was hurriedly passed*." He went on to state that, "*the Act is not as detailed as it should be. It was one of those 46 laws that were passed within 10 minutes. It didn't go through the proper stages and there are still a lot of areas where we have shortcomings. Like I mentioned earlier, the issue of Critical National Infrastructure is not detailed and telecommunications infrastructure is yet to be declared as such.*"

In addressing the Act's policy on Lawful Intercept, Informant 1 (15 February 2016) said, "*The Act is not too clear on issues such as lawful intercept of communication. The constitution already guarantees right of privacy on telephone conversations with people, but what the Act tries to do is legalize the act of an intercept and it is also not too clear on this. This is an example of an area that has to be clearly written*."

Informant 15 (10 March 2016) added that, "*The Act is lacking in a lot of areas. For instance, it addresses issues like lawful intercept but does not address the consequences of lawful intercept to the public. The issue of loss of privacy is completely ignored by the Act. The Act should be revisited and security should not be placed before human rights, as the law currently gives law enforcement agencies powers they should not have*."

Informant 1 (15 February 2016) further suggested that, "*Lawful Intercept should be a piece of legislation on its own*", emphasizing that "*the Act has embodied in it, several aspects that can individually be broken into several laws for seamless interpretation*."

<u>Question 4</u>: Within the last five years, it has become increasingly impossible to fully assess the mobile telecommunications industry without considering the influence of mobile broadband. The government and regulatory body have introduced certain broadband initiatives such as the Wire Nigeria (WiN) Project, the Universal Service Provision, the State Accelerated Broadband Initiative (SABI), etc., which ultimately aim to provide better broadband services across the nation. How effective have these governing authorities been in implementing these initiatives? What actions have they taken to facilitate broadband deployment and development across the nation and how were they held accountable in this regard?

The responses given to this question by the interview participants generated three major themes which strongly portrayed the government as incompetent.

- **Lack of Implementation**

The Informants, in responding to Interview Question 4, made it clear that the government had done nothing to ensure that the initiatives contained in the National Broadband Plan were executed.

According to Informant 3 (22 February 2016), "*SABI was conceived to extend broadband services to rural and underserved communities considered commercially unviable by operators while the WiN project aimed to connect major cities with optical fibre backbone to complement the efforts of service providers in commercially unviable locations. These initiatives have been bedeviled with a lot of government red tape, corruption and lack of will*."

Informant 2 (17 February 2016) explained that these initiatives never kicked off. He said that they "*really did not see the light of day*" and have completely lapsed.

Informant 16 (10 March 2016), a representative of the Ministry of Communications and a member of the current National Broadband Council, further stated that, "*The National Broadband Council was created to ensure that the policies and initiatives contained in the Broadband Plan are implemented. Two National Broadband Councils have existed so far. The first worked for two years; from 2013 to 2015. However, at the end of the Council's tenure, there was no reasonable document presented to list out its achievements. There was no report to show how far the Council had gone with respect to implementing the policies and meeting its KPIs. The second Broadband Council, which took over in 2015 when the new government came into power, is yet to carry out any activities with respect to the Plan's implementation. The Council is likely to start operations in April 2016, after the National Budget is passed*."

- **Lack of Transparency and Control**

  In describing the government's efforts to implement the Universal Service Provision (USP) initiative, Informant 5 (24 February 2016) explained that, "*The Universal Service Provision Fund (USPF) was established to fund the rollout of services in underserved and unserved areas. What it typically tries to do is offer counterpart funding to telecom operators if they are willing to take broadband services to certain areas of the country, particularly those areas that are unserved and underserved. To support this, the NCC introduced an initiative known as the Open Access Model. The implementation of this initiative involves the inclusion of third party companies known as Infrastructure Companies (.i.e. InfraCos) who have the responsibility of laying fibres all over the country. Telecoms operators, whilst being funded by the USPF, are then expected to pass traffic through these fibres in order to make broadband services available and accessible in underserved and unserved areas*."

Informants 17 (17 March 2016) and 18 (17 March 2016), both representatives of the NCC, in response to Interview Question 4, were also quick to note that the NCC had licensed two Infrastructure Companies namely MainOne and IHS which were to Lagos and the North Central regions respectively.

However, Informant 5 (24 February 2016) implied that the government really had no control over the eventual deployment of broadband infrastructure. He explained that, although telecommunications operators are expected to pass traffic through the fibres laid by the InfraCos in order to make broadband services available to under-served and unserved areas, they usually do not comply. He stated that, "*if an area is unserved or underserved, there is usually a reason and that reason is low demand. Telecommunications operators are usually unwillingly to commit to taking broadband services to places where demand for these services does not exist. As such, the government finds itself not being able to mandate broadband access. In response to this dilemma, not a lot of actions have been taken by the NCC*." The Informant also added that, "*The KPIs contained in the National Broadband Plan are highly generic and vague. Government agencies typically don't have specific KPIs for their initiatives and as such, the issue of accountability with regard to the implementation process is usually non-existent*."

Nevertheless, Informant 16 (10 March 2016) explained that "*the Ministry has no information on whether these companies have started work and how far they have gone in terms of broadband infrastructure deployment*."

- **Mismanagement of Funds & Lack of Accountability**

Another theme which was established by the interview participants is that of Fund Mismanagement. According to Informant 14 (10 March 2016), "*In early 2015, two different infrastructure companies; IHS Nigeria and MainOne, were licensed to provide telecoms infrastructure around the country. IHS was given the North Central region, and MainOne was given the South West (Lagos) region. There are agreed terms*

between these companies and the government. The government, specifically NCC, is expected to provide these companies with 50% of the funds needed to embark on their projects. The idea behind this is for these infrastructure companies to provide broadband services throughout the country at a subsidized rate. However, to my knowledge, the government has not kept their own end of the bargain."

Informant 11 (10 March 2016), a Senior Manager of a telecommunications company, expatiated on this when he said, "*The USPF is a funding initiative for the industry which is generated mostly from the taxation of PTO. As such, there is a huge inflow of money for the actualization of this initiative. That being said, it is important to note that the inflow of money is not commensurate to the proposed expenditure. Every year, contracts are awarded to third party companies. However, the proposed expenditure for the execution of these contracts and the consequent benefits do not in any way, match the inflow of funds to the government agencies and funding initiative*."

Informant 6 (1 March 2016) agreed that a great deal of mismanagement is the reason for the slow implementation process of broadband initiative. Informant 4 (23 February 2016) also expressed that the government cannot really be held accountable for their actions. He said of past experiences, "*they've really not been held accountable for anything*."

Conclusively, Informant 1 (15 February 2016) stated that, "*The National Broadband Plan is a key policy document of government which must be implemented to the latter. Currently, government has set a target to achieve a 5-fold increase in Broadband penetration, but that hasn't happened. As at 2013, it was about 6%. Government desires to achieve 5-fold increase which is 80% by 2018 but that seems unlikely due to the underlying issues of multiple taxation, lack of feedback, uncertainties in regulation, and so on. All these are government issues. Government has to take away these barriers in order to fully implement this policy document*."

- **Further Actions**

  According to Informant 11 (10 March 2016), in executing its Digital Awareness Programme, "*the government has tried to make broadband available to secondary schools and universities where there is evident need*."

<u>Question 5</u>: How has the government, by virtue of its actions and decisions in the areas of Cybercrime and Mobile Broadband, contributed to the realization of benefits from these areas?

The responses given to this interview question portrayed different obstacles to the absolute realization of benefits from Mobile Broadband and Cybercrime.

- **Government Actions**

  According to Informant 15 (10 March 2016), the Ministry of Communications formed a Cyber Security Unit which is responsible for ensuring that people within the Ministry are IT savvy. He explained that, "*with more technical knowledge within the Ministry itself, it will be easier for the public to become more knowledgeable about cybercrime and for the benefits relating to cybercrime to be realized*."

  Informant 2 (17 February 2016) also made mention of the 8-point agenda for broadband which was recently announced by the NCC stating that, "*I believe this agenda will address the benefits to be obtained from Mobile Broadband*."

- **Lack of Implementation and Enforcement**

The interview respondents also emphasized the fact that the existing laws and plans drafted out by the government to ensure the realization of benefits from the areas of Cybercrime and Mobile Broadband have been poorly implemented.

According to Informant 12 (10 March 2016), "*the passing of the Cybercrime Act was a step in the right direction*." Informant 13 (10 March 2016) added that, "*Prior to the Cybercrime Act, there was no law that directly criminalized any computer activities other than extant laws that were already in place. There were no laws used to prosecute computer crimes and as such, law enforcement agencies found it difficult to prosecute cyber criminals. The Cybercrime Act however, gives these agencies the ability to do this*."

Nonetheless, Informant 5 (24 February 2016) explained that, "*The kind of attacks you see now in terms of cyber-attacks are so advanced. You also have to ask yourself, 'are the law enforcement agencies in Nigeria sophisticated or advanced enough to stay ahead of the offenders?' I don't think so*."

In justifying this claim, Informant 13 (10 March 2016) went on to say, "*it is important to note that the fight against Cybercrime requires massive training of these law enforcement agencies, serious capital expenditure, and infrastructure development, none of which the government has provided. So far, the government has been unable to provide concrete databases for the proper identification and tracking of cyber criminals in the country*."

On the issue of Cybercrime, Informant 5 (24 February 2016) concluded that, "*If you ask me whether Cybercrime as a whole has reduced so far, I'd say maybe not. This is because laws on their own without enforcement can't stop crime*."

Informant 7 (1 March 2016) stated that, "*Honestly, I have not seen any implemented plans or policies in the areas of Cybercrime and Mobile Broadband. All I have come across are white papers from conferences and committee talks on policies and why we need them*."

Informant 9 (8 March 2016) expressed his concerns that the government's inability to act has prevented the industry from obtaining benefits from Broadband. He explained

that, "*the inability of the country to meet the deadline for the migration from analogue to digital broadcasting in order to free, vacate and transfer digital dividend spectrum to the NCC for the telecoms industry has adversely impacted the roll out of 4G/LTE broadband services in the country. This has put the attainment of the targets of the National Broadband Plan at risk and has jeopardized the realization of benefits from this area. If favorable policies were formulated and implemented to ensure that the deadline was met, this would not be the case*."

- **Continuity in Government**

In discussing the government's actions towards realizing the benefits from Mobile Broadband, Informant 11 (10 March 2016) said that, "*there is a policy document known as the National Broadband Plan which addresses different challenges faced by operators such as multiple taxation, right of way, multiple regulation, and so on. My fear however, is that with the change of government, there will be an element of uncertainty. I have not seen anything from the current government that shows that they are taking the policies contained in the Plan into consideration*."

- **Unresolved Challenges and Issues**

Another set of respondents were of the opinion that the mobile telecommunications industry cannot fully enjoy the benefits from the areas of Cybercrime and Mobile Broadband due to the current challenges plaguing the industry.

Informant 1 (15 February 2016) explained that the National Broadband Plan contained tactical and strategic action plans outlined by the government to drive broadband adoption and affordability. However, he expressed concerns that, "*in terms of quality actions towards achieving this, not so much has been done because the barriers of multiple taxation and the likes are still there*."

This stance was supported by Informant 14 (10 March 2016) when he explained that the serious issue of funds mismanagement will keep the licensed third party Infrastructure Companies from deploying broadband infrastructure and consequently, prevent the industry from enjoying all the benefits of Mobile Broadband. He stated that, "*broadband benefits can only be fully realized after these issues are addressed*", a feat Informant 3 (22 February 2016) explained will require "*commitment on the government's part*."

In poor defense of the government's actions, Informant 16 (10 March 2016) explained that "*the Ministry is still working on solutions to the issues of Multiple Taxation and Regulation. This is still a work in progress*."

<u>Question 6</u>: In your opinion, how have the government and the regulatory body handled the community relations content with regards to the implementation of Cybercrime and Broadband policies? To what extent would you say that these governing authorities have involved the public in their actions?

The responses given to this interview question presented one strong theme in which the government was portrayed as an entity which acts in solitude.

According to Informant 11 (10 March 2016), "*only few people within the industry are actually aware that the Cybercrime Act has indeed been passed*."

This view was shared by Informant 12 (10 March 2016) when he stated that "*the public doesn't really know about the Act. Only few people in the Telecommunications Industry and the Information Security Sector are aware of the law on Cybercrime and the different penalties attached to the different crimes*."

Informant 2 (17 February 2016) also added that, "*awareness about the Cybercrime is virtually non-existent. Beyond industry operatives, I don't think the public generally is as aware as it should be. The public should be more aware of issues surrounding the Cybercrime Act*."

Informant 11 (10 March 2016) further expressed his concerns on this lack of public knowledge when he said, "*one would have expected that as part of the passage of this Act, there would have been commensurate awareness to enlighten people on cybercrimes and the penalties attached to each crime. This was not done*."

Informant 10 (9 March 2016), a representative of the NCC, agreed that "*more has to be done to educate the public on cyber security in order to reduce cybercrimes and catch perpetrators*."

Informant 15 (10 March 2016) added that "*the Ministry is only now trying to begin taking steps towards public awareness and involvement*."

Informant 2 (17 February 2016) stated that, "*with respect to broadband, there's supposed to be a National Broadband Council (NBC) which is meant to oversee the implementation of the National Broadband Plan. Frankly, I think they could have done much more in terms of keeping the public aware and informed of its actions. From time to time, personalities within the NBC make public statements which are reported and are then referred to as 'official statements' from the entire Council. However, there is no official structure for public enlightenment*."

Informant 16 (10 March 2016), a representative of the Ministry and the current National Broadband Council, explicitly stated that, "*the first Broadband Council did nothing to ensure that the public was made aware of or was involved in activities related to Broadband*."

Informant 4 (23 February 2016) asserted that, "*public involvement is supposed to be a continuous effort. There is supposed to be continuous sensitization that keeps the public abreast of government actions in the areas of Cybercrime and Mobile Broadband, as well as the reasons behind these actions. However, this is not the case*."

Informant 14 (10 March 2016) went on to suggest that "*the NCC can engage an agency like the National Orientation Authority (NOA) to help publicize the actions of the government in these two areas*."

Informant 5 (24 February 2016) frankly stated that, "*the government is probably in a better position to talk about their public involvement initiatives but from what I see in the public space, I don't perceive a lot of work being done*."

Informant 3 (22 February 2016) stated that first of all, "*the government's actions as regards Cybercrime and Mobile Broadband leave much to be desired. Consequently, public involvement has not met expectations*."

Informant 7 echoed this when he bluntly stated that "*there has been no implementation of any kind in these two areas, let alone public involvement in the implementation processes*."

<u>Question 7</u>: The Ministry of Communication states in its National Information and Communication Technology (ICT) Policy document that one of its objectives for enhancing future Research, Development and Innovation in the country's ICT sector (telecommunications inclusive) is to ensure that a National Research and Development Agenda is developed and approved by the end of 2015. In specific terms, what actions were taken by the government to ensure that this policy objective was realized and how was the government held accountable in this regard?

All responses to given to this interview question revealed a predominant theme of lack of continuity in the Nigerian system of governance.

> According to Informant 2 (17 February 2016), "*the idea behind the National Research and Development Agenda was to encourage and enhance the telecoms industry. Broadly, within that context, something was being done. However, the approval was to be given at the end of the tenure of the last government and generally in Nigeria, there is little or no continuity of government policies*."
>
> This stance was supported by Informant 11 when he said, "*The last Minister of Communications did quite a bit in trying to push this agenda through. I am aware of some workshops that were held. But to be honest, I really don't know where this agenda is right now. It seems like it just died with the last Minister. Not much has been heard about it since the current government took over*."
>
> Informant 1 explained that, "*2015 was an election year and as such, a lot of actions that were proposed by government didn't come to fruition because of the transition. There is a new Minister on board that will set his agenda for the telecoms industry so whatever policy action government will take will flow from the new Minister's agenda*."
>
> Informant 2 further supported that, "*The adoption of policies across governments is rare in Nigeria. So basically, that is why you would see the NCC coming up with an 8-point broadband agenda without necessarily making much reference to the National*

Broadband Plan. This breakdown in government is a major impediment to the development of the sector."

Informant 14 (10 March 2016) clearly captured the thoughts of all industry stakeholders when he stated, "*The National Research and Development Agenda has not been approved and this is a result of the negative effect of change in government. This Agenda was an idea of the previous government and as we can see, there has been no continuity of ideas or policies with the current government which is from a different political party. If the interest of the country supersedes party interests, this wouldn't have been the case. The new minister is coming up with his own policies and the old policies are not being taken into consideration. The minister came up with the 8-point agenda which did not make reference to the National Research and Development Agenda. The 8-point agenda talks about taking ICT to the next level, but you cannot talk about taking any form of technology to the next level without adequate research. The development of the National Research and Development Agenda was a good policy objective because it is only through research that the industry can expand and the country as a whole can grow. This is really the way to go!*"

In a seemingly poor defense of the government's actions, Informant 15 (10 March 2016), a Ministry representative, stated that, "*The Agenda was not approved before the switch of governments in 2015 and there is really no way to hold the past government accountable for this*."

<u>Question 8</u>: As a representative of one of the key players in this industry, would you say that the progress made by the Nigerian Mobile Telecommunications Industry in the last five years fell below or above expectations? Do you think the industry as a whole is where it ought to be now? Why are you of this opinion?

The response to this question divided the interview participants into three categories;

1- one who felt the industry exceeded expectations in the last five years and is where it ought to be;
2- those who felt the industry exceeded expectations but as a whole, has not made enough progress to claim that it is where it ought to be presently;
3- those who out rightly expressed their disappointment at the industry's progress in the last five years and clearly stated that the industry is by no means where it ought to be.

- **Category 1**

Only one interview respondent expressed complete satisfaction with the current status of the Mobile Telecommunications Industry.

> According to Informant 10 (9 March 2016), a government representative, "*the progress made in the Nigerian telecommunications industry in the last five years is above expectation. The industry as a whole is where it ought to be and in the next five years, I am 100% sure that we will improve beyond expectation*."

- **Category 2**

> According to Informant 4 (23 February 2016), "*the progress that has been made in the last five years is above expectation. This is because the telecoms sector accounts for about 10% of non-oil federal tax received in the country. That being said, I don't think that the industry as a whole is where it ought to be*."
>
> Informant 14 (10 March 2016) also explained that, "*according to statistics, Nigeria has the largest number of telecommunications subscribers in Africa*." This was supported

by Informant 1 (15 February 2016) when he said, "*Telephony penetration, in terms of tele density, has improved year on year*."

Informant 14 (10 March 2016) however concluded that the industry can do better as "*there are a lot of challenges constraining the industry such as power and infrastructure which need to be addressed*."

Informant 11 stated that, "*the industry has come a long way. If you take a benchmark of the last five years, the industry has done a lot. Five years ago, the industry was still operating on 2G and now data has become so ubiquitous. I think the industry has made significant progress. All things considered however, I think it can do more*."

Informant 6 (1 March 2016) added that, "*I believe there is still room for a lot of improvement*."

According to Informant 13 (10 March 2016), "*I think the industry has made a lot of progress. There is more coverage within the industry. That being said, I don't think the industry is where it should be. With respect to cyber security, the country is still not capable of protecting itself from severe cyberattacks which developed nations can easily ward off*."

Informant 2 (17 February 2016) added that the industry's progress is indeed "*acceptable*" although "*it is not where it ought to be for a number of reasons*."

Informant 18 (17 March 2016) said, "*In the last couple of years the industry has grown rapidly, but due to the overhead costs of maintenance (e.g. power supply, security, etc.), public attitude towards telecoms infrastructures, lack of cooperation between government agencies and selfish interest, the industry has not reached where it ought to have been*."

Informant 17 (17 March 2016) also agreed that the present state of industry regulations has impeded the industry's growth in general.

Conclusively, Informant 5 (24 February 2016) stated that, "*In the last five years, the Nigerian telecommunications industry has become the biggest in Africa, outstripping that of South Africa. However, we could have obviously done better, particularly in terms of the technology currently available in the country. There is no reason why 4G Broadband shouldn't be available on a wider level at this point. The suite of services available also seems a bit limited; why are we building an industry with no fixed lines? We could have done a lot better with the right support from the government and the industry could have been more profitable with the right policies*."

- **Category 3**

According to Informant 7 (1 March 2016), "*the progress made by the industry in the last five years did not meet expectations due to the government's inconsistency in pushing for national telecommunications development*."

Informant 8 (2 March 2016) added that, "*the progress made has not been enormous because the expectation was that broadband infrastructure would have spread further at this point and perhaps broadband services would become more affordable*."

Informant 9 (8 March 2016) reiterated the fact that unfavorable policies hindered the industry from progressing beyond expectation over the last five years.

Informant 12 (10 March 2016) held that the industry is definitely not where it is supposed to be. He said that, "*I believe that if there was proper regulation from the onset when mobile companies were initially licensed, the industry would have done better*."

According to Informant 3 (22 February 2016), "*The progress made so far could have been more than this. The industry could have been more robust than its present state. The level of infrastructural decay, problem of power, corruption and lack of commitment by regulatory agencies contributed to the slow pace of progress made*."

Informant 15 (10 March 2016) and Informant 16 (10 March 2016), both government representatives, also admitted that "*the government could have done a lot more in the last five years to ensure that a higher level of progress was made by the Mobile Telecommunications Industry*."

The responses obtained from the research participants of this study successfully threw more light on the activities of the Nigerian government with respect to the country's Mobile Telecommunications Industry, particularly in the relevant areas of Cybercrime and Mobile Broadband. The entire interview process provided much needed insights into how the government has influenced the industry's growth, thereby responding to the second sub-question of this research study.

4.4. Complementary Documentation

During the course of this research, two documents were collected to be analyzed in support of all information obtained during the research interview process. These documents are:

- **The Socio-Economic Impact of Telecoms in Nigeria, 2013**

This is an unpublished sector report prepared by an economist group company known as Pyramid Research. This organization is a world renowned source of reliable market analysis of global telecommunications, media and technology industries. The Socio-Economic Impact of Telecoms in Nigeria, 2013 highlights the impact of the Nigerian Mobile Telecommunications Industry on economic variables such as Gross Domestic Product, Foreign Direct Investment, and Employment, and further emphasizes the need for urgent government actions in this industry.

- **Open Access Model for Next Generation Optic Fibre Broadband Network: The Nigerian Model, 2013**

This is an industry consultation paper on Broadband prepared by the Nigerian Communications Commission to break down its procedures for establishing an Open Access Model in actualization of the policy objective contained in the National Broadband Plan (NBP). In this document, the NCC explains how the introduction of this Model will facilitate Broadband deployment across the country, and also identifies the parties required to participate to ensure the successful execution of this government project.

4.4.1. The Socio-Economic Impact of Telecoms in Nigeria

According to this socio-economic sector report prepared by Pyramid Research (2013), the Federal Republic of Nigeria is undisputedly Africa's largest mobile market. In emphasizing the impact of the country's Mobile Telecommunications Industry on the consumer market, Pyramid Research (2013: 5) stated that "over 60% of Nigerian consumers agree that using mobile services had improved their lives". This report went on to explain that "the contribution of the Nigerian telecommunications industry to the country's GDP reflects the sector's foundational position, with a reach touching nearly all the sectors of the economy" (Pyramid Research, 2013: 20). Nevertheless, the report indicated that this industry is operating way below potential due to unresolved issues such as spectrum availability, multiple taxation, and the country's patchy power infrastructure.

In referencing the Nigerian Federal Inland Revenue Service, Pyramid Research (2013: 32) explained the incidence of multiple taxation as "the imposition of the same or similar taxes or levies on the same income, transaction or person by one or more levels of government in one or more jurisdictions." In a bid to compel adherence to this illegal system of taxation, "many government agencies resort to some form of coercion, often shutting down site operation or seizing equipment until operators consent to payment, with limited legal recourse. In some cases, hub sites are shut down, leading to service to be [sic] affected in operating areas that are wider than the initial source of the shutdown" (Pyramid Research, 2013: 37). The revenue loss experienced by the industry as a consequence of this operational shutdown was estimated to be around $50 Million to $100 Million annually.

The problem of unreliable power infrastructure in the Nigerian Mobile Telecommunications Industry is another issue which Pyramid Research (2013) described as having far-reaching consequences, regardless of the industry's overall positive macro-performance. According to Pyramid Research (2013: 28), "Nigerian operators spend around N8bn to N10bn a year in diesel costs to power up their base stations. Such costs account for about 60% of operators' network costs. Primarily because of such fuel costs, average network costs in Nigeria are 2x to 3x [sic] higher than in a number of other African markets."

Using the figure below, Pyramid Research (2013) compared the telecommunications cost of operation in Nigeria to that of other African markets:

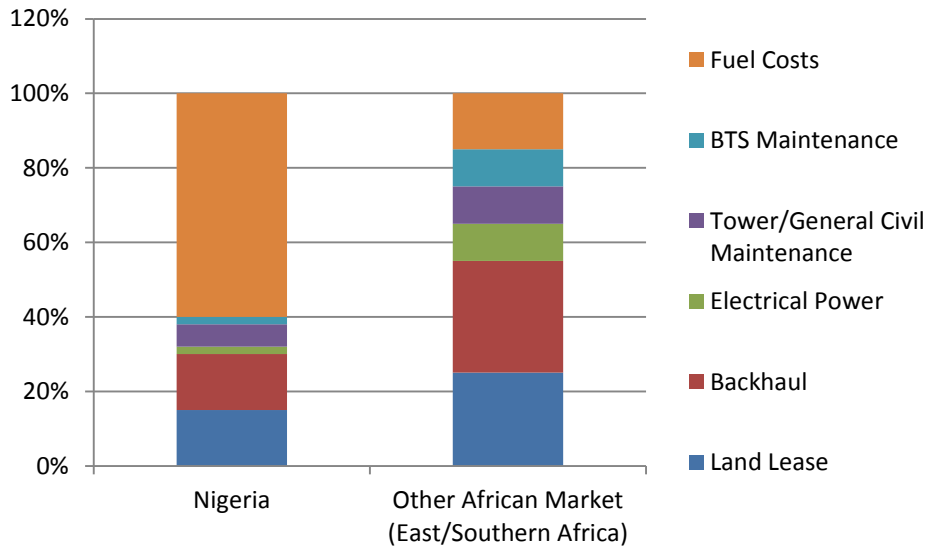

Figure 2. Structure of Network Costs – Nigeria vs Sample African Market. Adapted from *The socio-economic impact of telecoms in Nigeria* (p. 29).

The figure above illustrates that telecoms operators within the Nigerian telecommunications space expend 60% of their revenue on fuel and diesel to power up backup generator sets in response to the government's unreliable electricity supply. In contrast, other African markets spend less than 20% of their revenue on resources for backup power supply.

Pyramid Research (2013) went on to diagrammatically illustrate the far-reaching consequences of the high operating expenses telecoms service operators:

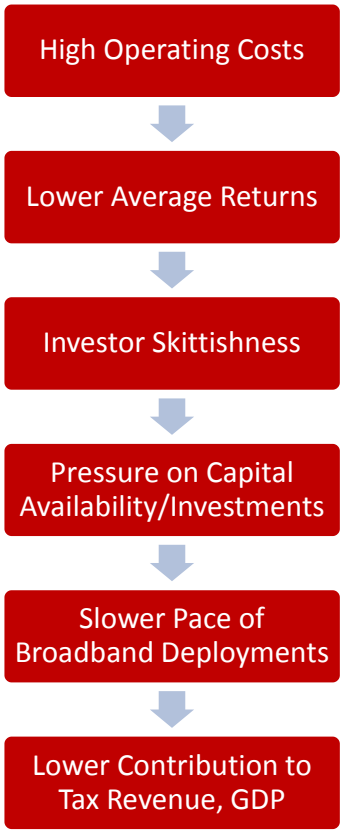

Figure 3. The Pernicious Impact of High Operating Costs. Adapted from *The socio-economic impact of telecoms in Nigeria* (p. 31).

The figure above shows how the high operating costs endured by telecoms service providers, as a result of the government's failure to supply constant electricity, reduces the availability of resources to deploy Broadband infrastructure across the country. An eventual reduction in the nation's overall Gross Domestic Product is also visibly inevitable due to the fact that a bulk of the industry's earnings and revenue goes into providing the basic necessity of electrical power for itself.

4.4.2. Open Access Model for Next Generation Optic Fibre Broadband Network: The Nigerian Model

In this industry consultation paper, the Nigerian Communications Commission [NCC] (2013: 2) stated that it is "committed to putting in place a new broadband deployment environment through an 'Open Access Model' in line with the National Broadband Plan." This Model, which is to facilitate the deployment of optic fibre transmission network, aims to "deliver fast and reliable broadband services to households and businesses" and ensure that all operators "have equal access to broadband infrastructure" (NCC, 2013: 2). However, in its assessment of the status quo of the Nigerian Broadband environment, NCC (2013) acknowledged that the country is plagued by myriad difficulties and challenges which include:

- Multiple taxation/Right of Way issues;
- Unplanned towns and cities;
- Poor infrastructure sharing; and
- Security challenges and vandalism (NCC, 2013: 3).

To address the above challenges and achieve the country's Vision20: 2020 economic transformation blueprint, NCC (2013: 4) explained that "there is a need for a long term widespread deployment of a robust nationwide comprehensive backbone and metropolitan fibre infrastructure." The Commission also listed out the following initiatives:

- Providing a robust National Broadband policy to support an open access broadband model and deployment of a nationwide broadband network. These will ensure sustained investment and ensure greater penetration of broadband in the country;
- Harmonising taxes to prevent multiple taxation by all tiers of governments; and
- Resolving the security concerns of vandalism and damaged cables (NCC, 2013: 3).

NCC (2013) explained that the deployment of nationwide broadband metropolitan and backbone infrastructure in no easy task. As such, the Commission cited Infrastructure Companies (InfraCos) and Wholesale Wireless Providers/Suppliers as key players in ensuring that this advanced industry structure is achieved. According to NCC (2013: 8), the InfraCos to be engaged in this deployment of broadband through the proposed Open Access Model are "expected to offer end-to-end open access transmission services that are available on a

widespread geographic basis.” These companies are expected to achieve this by leveraging on fibre infrastructure provided by the Wholesale Suppliers.

The two documents presented above provide additional and complementary information to the data gathered from the documentation and interview processes of this research study. These documents were collected to further validate the information obtained by the researcher through primary sources.

CHAPTER FIVE

DATA ANALYSIS

This chapter aims to systematically analyze all the data presented in Chapter Four. The data obtained from government policy documents, interview sessions, industry papers and reports, will be analyzed in this section in order to guide the conclusion and recommendations of this research.

5.1. Implementation of Laws and Policies

The data gathered during the course of this research highlighted many issues with the implementation of established telecommunications laws and policies. The majority of industry challenges pointed out by the interview participants owe their existence to the fact that the government has so far been unable to make good on its promises with respect to Broadband and Cybercrime.

In the National Broadband Plan, the government recognized the various challenges facing telecommunications operators with regard to Broadband, and consequently mapped out strategies for addressing these challenges. To ensure that these strategies were realized, the Presidential Committee on Broadband (2013: 78) explained that the Ministry of Communications was to "monitor the implementation of the National Broadband Plan and report regularly on the status of implementation of this plan and undertake relevant studies on the impact of broadband on national development." Unfortunately, three years down the line, operators continue to lament over the same challenges, clearly stating that these problems have single-handedly been responsible for slowing the growth of the industry as a whole.

The government's strategic plan of developing "clear policy, regulation, and roles for the Government" (Data Presentation, Page 65) as contained in the National Broadband Plan, is yet to come to fruition. Currently, there is still a lot of regulatory uncertainty within the industry as noted by Informant 1 (15 February 2016) when he explained the level of control exerted by different government agencies on telecommunications operators "*irrespective of the fact that there is a national regulator that has that responsibility*." The government has also failed at

"optimizing spectrum utilization" (Data Presentation, Page 65) within the industry, thereby making it impossible for operators to deliver on 4G Broadband which is the "*next line of growth for the industry*" according to Informant 5 (24 February 2016).

Irrespective of the fact that the government, in the National Broadband Plan, acknowledged the issues of multiple taxation at different government levels and unreliable power supply as impediments to the smooth functioning of the industry, nothing has been done so far to alleviate these. Noting the loss of telecoms revenue attributed to multiple taxation, and the impending reduced GDP contribution resulting from expenses on alternative sources of power (Pyramid Research, 2013), it is incredible that the government has not gone beyond its promises on paper and actually taken any concrete actions towards eliminating these problems. Addressing these issues would only protect the long term interests of the government. Nevertheless, it seems that the government has failed to see the bigger picture and is instead "*contemplating more taxes*" (Informant 5, 24 February 2016).

The independent national regulator, NCC, has also not been able to maintain a "level playing field in the market" (Data Presentation, Page 65), thereby failing to implement yet another policy objective contained in the National Broadband Plan. Informant 5 (24 February 2016) explained that the poorly developed competition laws within the mobile telecommunications industry has allowed the market leader, MTN Nigeria, to control 40% of the market and 80% of the value share of the entire industry. The presence of multiple taxation within the industry also does nothing to ease the burden on the other three operators who obviously do not possess the same financial capacity as the market leader and clearly cannot withstand incessant taxation from the government in the long run. Again, the fact that "*the government is currently contemplating more taxes*" (Informant 5, 24 February 2016), knowing fully well that these "*operators are generally constrained when it comes to carrying out their activities as a result of multiple taxation from state, local, and federal governments*" (Informant 11, 10 March 2016) not only insinuates that the government does not intend to implement its policy objective of maintaining a level playing field anytime soon, but also raises the question, "whose interest is the government ultimately trying to protect?"

In the National Broadband Plan, the government expresses its goal to establish "cyber security" (Data Presentation, Page 65), a goal that Informants 1 and 15 opine has begun to materialize due

to the establishment of Cyber Security Units in the NCC and the Ministry. Informant 10, an NCC representative, boldly stated that, "*NCC has started implementing strategies for cyber security awareness and creating awareness programs for all stakeholders*." The supposed stakeholders however, explained that they had seen no action from the government in relation to the fight against Cybercrime. With a majority of informants stating that they are not aware of anything being done yet, it is clear that these Security Units have actually not begun enforcing their alleged awareness strategies. Informant 5 (24 February 2016) clearly stated that the issue of Cybercrime has not been alleviated in any way. This is perhaps due to the fact that the government has failed to provide the intensive training needed by already established law enforcement agencies as pointed out by Informant 13 (10 March 2016). If these law enforcement agencies have been established without being adequately equipped to perform their duties, how then can the government claim proper implementation of its 'Cyber Security' policy objective?

The Cybercrime Act (2015: 1) lists one of its objectives as being "to ensure the protection of critical national infrastructure." Informant 4 (23 February 2016) explained that the first step in achieving this objective would be to declare all telecommunications infrastructures in the country as Critical National Infrastructure (CNI) which would affirm that this infrastructure is key and essential to the running of the country and therefore, ensure that any form of interference with these facilities is recognized as unlawful and illegal. Nevertheless, the Act, as explained by Informant 4 (23 February 2016), missed this crucial step. All the Act actually does is give the President the power to declare telecommunications infrastructure as CNI as he deems fit (Data Presentation, Page 69), but to date, the government has failed to do this. Seemingly, the industry's governing authorities are in no hurry to implement this objective and address the infrastructure security challenge identified by industry operators. Telecommunications infrastructures are still being sabotaged and the culprits are very much permitted to walk the streets as every other citizen.

The Ministry of Communications established a National Broadband Council (NBC) which had the sole responsibility of monitoring the implementation of the government initiatives contained in the Broadband Plan. According to the Presidential Committee on Broadband (2013: 67), "The Council shall ensure that a six-monthly periodic assessment is published to report where the country stands in broadband deployment, adoption and utilization." The Committee further

stated that, "The government recognizes the need to measure progress and adjust programs to improve performance in a manner that will permit the realization of new and emerging opportunities" (Presidential Committee on Broadband, 2013: 67). As such, the Broadband Plan went ahead to propose certain Key Performance Indicators (KPIs) to be monitored by the Council. The government's objective could not have been put any better; it not only acknowledged the need to monitor the implementation process, but also promised to provide much needed feedback on the progress made. This completely indicated a ruling administration that was more than determined to move telecommunications in Nigeria forward. In reality however, it was a completely different situation. As the data gathered shows, two of the government initiatives (i.e. the Wire Nigeria (WiN) Project and the State Accelerated Broadband Initiative (SABI)) never saw "*the light of day*" (Informant 2, 17 February 2016). In the NBC's defense, Informant 16 (10 March 2016), a representative of the Ministry and a member of the current National Broadband Council, was quick to push the blame to the past Council which served under the previous government, stating that it was utterly inefficient in performing its duties and did not provide any progress reports on Broadband in Nigeria. When pressed further however, the Informant's excuse for the current Council's inactions since being inaugurated with the new government in May 2015, was the fact that the National Budget for 2016 had not been passed yet. According to the Informant, "*The Council is likely to start operations in April 2016, after the National Budget is passed*." So basically, it would take a year before the second and current Broadband Council would do anything as regards the implementation of the National Broadband Plan. The fact that the new government introduced an 8-point Agenda that overthrows the Broadband Plan only makes it easier for a "change of government" excuse to be put forth a few years down the line as the reason for the Plan's stalled implementation.

According to Informant 11 (10 March 2016), the government has made reasonable efforts to accomplish its Digital Awareness Programme (DAP) initiative. The same however, cannot be said for the Universal Service Provision (USP) initiative. Although the NCC introduced the Open Access Model, initiated the Universal Service Provision Fund (USPF) to guide this Model, and assigned the engaged Infrastructure Companies to two geographical locations within the country, not much else has been done to push for the actualization of the USP initiative. According to NCC (2013), the Infrastructure Companies are supposed to offer end-to-end open access

transmission services. However, no one within and outside the industry knows the extent to which this has been achieved. To begin with, no progress reports have been published. The Ministry itself seems to have "*no information on whether these companies have started work and how far they have gone in terms of broadband infrastructure deployment*" (Informant 16, 10 March 2016). Perhaps, this is because the NCC has found itself in a situation where it cannot compel the telecoms operators to comply with this initiative, irrespective of the funding offered (Informant 5, 24 February 2016). Another theory of course, remains that the funds which should have been made available to the Infrastructure Companies were misappropriated by the government. Either ways, the totality of responses gotten from the industry's stakeholders on the issue of implementation of government initiatives portrays the government as weak, unreliable, and untrustworthy.

5.2. Continuity in Governance

Many thematic issues were drawn from the responses given to the last seven interview questions of this research. However, one of the common issues which kept resurfacing in these responses was that of poor continuity across government.

The National Broadband Plan (NBP) is a government document which maps out action plans to be taken in order to ensure that Broadband is made available and affordable to the populace across the country. This plan was meant to cover the period of 2013 – 2018 and as the data gathered shows, a lot of the initiatives proposed by this Plan have not been implemented. Informant 11 (10 March 2016) expressed worries about the implementation of this Plan due to the "*element of uncertainty*" attributed to the "*change of government*" in the country. On the 27th of January, 2016, an 8-point Agenda on Broadband, which was to cover the period of 2015 – 2020, was unveiled. While this overlapping government document touches on few issues mentioned in the NBP, many other issues yet to be addressed by the Plan were not mentioned in the Agenda. To quote Informant 11 (10 March 2016), "*I have not seen anything from the current government that shows that they are taking the policies contained in the Plan into consideration*." Informant 2 added that "*The adoption of policies across governments is rare in Nigeria. So basically, that is why you would see the NCC coming up with an 8-point broadband*

agenda without necessarily making much reference to the National Broadband Plan. This breakdown in government is a major impediment to the development of the sector."

The Cybercrime Bill of 2013 was passed in 2015, and from then on, served as an official piece of legislation to guide the fight against Cybercrime in Nigeria. However, Informant 2 (17 February 2016) insinuated that the reason for the lack of implementation of this legislation so far is the fact that it was "*enacted towards the end of the life of the previous government*" and as such, the transition in government has not allowed for any concrete action to be taken.

The actualization of the Research and Development policy objective contained in the National Information and Communication Technology (ICT) Policy was also presumably affected by the lack of government continuity. In 2012, the Ministry of Communications explained just how important the elements of research and innovation are to the technological development of the nation and as such, proposed to approve a National Research and Development Agenda by the end of 2015. Again, the predominant issue highlighted here by the interview participants pointed to a lack of continuity in governance. According to Informant 11 (10 March 2016), "*The last Minister of Communications did quite a bit in trying to push this agenda through. I am aware of some workshops that were held. But to be honest, I really don't know where this agenda is right now. It seems like it just died with the last Minister. Not much has been heard about it since the current government took over*."

5.3. Public Involvement and Government Accountability

The responses obtained from the interview questions put to the participants during the course of this research identified serious issues with regard to the government's ability to involve the public in its decisions and provide reports on its activities.

5.3.1. Lack of Public Involvement

This problem was initially brought to light by the incessant complaints made by the interview respondents concerning the challenges faced in the industry. The Nigerian government is not oblivious to the fact that these industry challenges exist, as can be seen from its established

strategy plans and policies. However, the fact that telecommunications operators still complain bitterly about these challenges insinuates that nothing has been done to address them, at least not to their knowledge. Informant 2 (17 February 2016) clearly expressed his dissatisfaction at the fact that the National Broadband Council had not "*done much more in terms of keeping the public aware and informed of its actions*." Informant 11 (10 March 2016) added that, "*the government needs to create higher visibility with respect to their actions. A lot of things go on in the industry that are not evident and this also stifles the growth of the industry*." It is my guess that even if these challenges are yet to be fully addressed by the government, if any attempts were made in the past to resolve them and the operators were informed of the government's actions every step of the way, there would be no palpable sense of dissatisfaction and frustration at the status quo in the mobile telecommunications industry. Instead, there would be a glimmer of hope within the industry that in time, these challenges will eventually become non-existent. However, due to the fact that the government has utterly failed to make its actions towards addressing these challenges transparent, assuming of course that actions are being taken, the outcry from the industry stakeholders remains immense.

Masango (2002) described "Participation" as the involvement of the public in the policy-making and implementation processes. However, the feedback received from the interview respondents clearly shows that Participation is nonexistent in the Nigerian Mobile Telecommunications Industry. According to the Cybercrime Act (2015: 1), one of the objectives of the Act is to provide an "effective and unified legal, regulatory and institutional framework for the prohibition, prevention, detection, prosecution and punishment of cybercrimes in Nigeria." However, the interview participants clearly expressed the view that the government has a small chance of achieving this goal of effectiveness. In assessing the existing Cybercrime Act, Informant 4 (23 February 2016) expressly stated that the Act was hurriedly passed and insinuated that not much thought was given to the formulation of this legislation. The comments made by Informants 4 and 1 about the undetailed and poorly structured legal framework that is the Cybercrime Act suggests a lack of involvement of the telecoms operators in enacting this law. The respondents' level of dissatisfaction at the way issues raised in the Act were addressed, and their consequent suggestions regarding what should have been done instead clearly shows that other industry players were not given the opportunity to voice their opinions and contribute to the lawmaking process.

The issue of Public Involvement was also bluntly put to the interview respondents in the sixth interview question. The responses to this question showed that the Nigerian government made laws and policies without involving the general public. According to Informant 12 (10 March 2016), people outside the telecommunications industry know absolutely nothing about the Cybercrime Act which was passed in 2015. Informant 11 (10 March 2016) further stated that, "*one would have expected that as part of the passage of this Act, there would have been commensurate awareness to enlighten people on cybercrimes and the penalties attached to each crime. This was not done*." This lack of involvement is indeed disturbing, seeing that the issue of Cybercrime is one that affects not only players within the telecommunications industry, but also the average Nigerian.

As can be inferred from the gathered data, the involvement of industry players in the process of implementing telecommunications policies and initiatives is extremely poor. The fact that people within the industry cannot categorically explain what happened with initiatives like WiN and SABI says a lot about the government's desire for public inclusion. Also, the fact that key industry players have been left in the dark with respect to the NCC's implementation of the USPF initiative is highly unsettling. Informant 4 (23 February 2016) said that "*public involvement is supposed to be a continuous effort. There is supposed to be continuous sensitization that keeps the public abreast of government actions in the areas of Cybercrime and Mobile Broadband, as well as the reasons behind these actions. However, this is not the case*."

5.3.2. Lack of Government Accountability

In the simplest of terms, Mulgan and Uhr (2000) described the process of accountability as one which requires government officials to report on their activities and give reasons behind their decisions. Bearing this in mind, it is clear that the Nigerian government is far from being accountable to the public for its actions. As explained by Informant 16 (10 March 2016), the first National Broadband Council left no progress reports to show what it had achieved during its tenure with respect to the implementation of the Broadband initiatives irrespective of the KPIs contained in the National Broadband Plan. Informant 5 (24 February 2016) further criticized the generic nature and vagueness of these KPIs, stating that project or initiative specific KPIs do not

exist and as such, the issue of accountability with regard to the implementation of such initiatives "*is usually non-existent*."

The recurrent 'change of government' excuse provided in justification for the lack of policy implementation is the government's way of covering up for its inadequacies. What stops the government from implementing even a few of these policies before any sort of political transition takes place? Why, after a year in office, do the current government and its agencies still have nothing to show with respect to policy implementation? Why are important issues like fund mismanagement and irregularities in the budget for government projects swept under the rug? According to Édes (2000: 151), "It is a fundamental right of citizens in a well-functioning democracy to know what public officials are doing. What policies they are pushing, what laws and regulations they are preparing, what programmes they are running, how they are raising and spending money and what international agreements they are negotiating. Such information helps to curtail arbitrary use of government power, increases accountability of public officials, and helps citizens to formulate their own opinions on issues affecting their lives." Informant 4 (23 February 2016) clearly asserted that the government has "*really not been held accountable for anything*" in the past. It is high time the public, in conjunction with other industry operators, demands answers and compels accountability from the government.

5.4. The 8-point Agenda on Broadband

The Broadband 8-point Agenda was introduced by the Executive Vice Chairman (EVC) of the Nigerian Communications Commission in early 2016. The Agenda lists eight goals which will be the focus of the Commission with respect to Broadband and briefly explains the proposed strategy for achieving these goals. Although the plans of this Agenda could not be incorporated into the interview questions posed to respondents due to the timing of its introduction, some responses obtained from the interview participants highlighted the existence of this document in the broadband space.

In critically analyzing the 8-point Agenda, it is evident that many of the problems highlighted by the participants of this research regarding previously established government policy documents are present in this newly introduced plan. The new government proposes to address issues such

as spectrum utilization, quality of service, operational efficiency, amongst others. While it states its strategies for achieving these, these strategies are not thoroughly clarified and a systematic breakdown of steps and processes to be undertaken in addressing each issue is not contained in the Agenda. For instance, its plan to improve the quality of service by ensuring infrastructure sharing amongst telecoms operators is quite vague (Data Presentation, Page 71). Although this plan seems to be a response to the plea made by Informant 11 (10 March 2016) when he proposed that the government ought to "*set up policies and law that compel industry players to share infrastructure in order to help reduce the costs to a single operator*", the reality remains that the government failed to clarify how it intends to compel industry players, and particularly, the market leader, to share its infrastructure with other operators, considering the fact that it is fully capable of bearing the costs of not doing so.

The Agenda also fails to identify any form of feedback mechanism or accountability measure to be employed during the implementation processes of its proposed plans. From the data gathered during the course of this research, it is safe to say that this is a severe problem which questions the government's genuine intentions to implement this Agenda.

Conclusively, the Agenda hints at the fact that past regulatory and operational systems and processes have not exactly been results-oriented and then goes on to promise improved operational efficiency, effectiveness, and stakeholder satisfaction. However, the fact that this government Agenda is not in any way exhaustive makes the achievement of efficiency and effectiveness seem improbable and also makes it less likely that it "*will address the benefits to be obtained from Mobile Broadband*" (Informant 2, 17 February 2016).

CHAPTER SIX

CONCLUSION

This final chapter examines the analysis of the research data and draws a corresponding conclusion on the predominant role of the government in the Nigerian Mobile Telecommunications Industry. Recommendations as to how the industry can move beyond where it currently is in terms of growth, are also contained here. The concluding chapter of this study shows how the findings made by this research inquiry have contributed to the body of knowledge in the industry.

6.1. Introduction

This research set out to uncover the predominant role played by the Nigerian government in one of its leading industries namely, the Mobile Telecommunications Industry. Focusing on a time period of five years (i.e. 2011 to 2015), this research study looked at policies governing two major areas of the industry namely, Cybercrime and Mobile Broadband. Taking note of the fact that no research inquiries have been conducted to assess the government's role given the country's current mobile communications environment, this study sought the views and opinions of well-informed public officials and corporate telecommunications executives who are at the hub of the Telecommunications Industry. Relevant government documents and industry reports were also consulted to ensure that a valid conclusion concerning the predominant role of the government was reached.

6.2. Ineffective Governance: Issues of Implementation

The previous chapter narrowed down the various themes identified during the data presentation stage to three main themes: Implementation of Laws and Policies; Continuity in Governance; and Public Involvement and Government Accountability. Conclusively however, the overarching and central theme here is that of Implementation.

Chapter Five extensively discussed how issues such as multiple taxation, unreliable power, spectrum availability, multiple regulation, amongst others, still exist due to the government's

inability to implement its policies regarding these issues and put its carefully spelt out strategies to action. It also discussed how established laws have been poorly implemented so far. Although the government asserts that it is making efforts to resolve these issues (Informant 16 in response to Interview Question 5) and implement its plans (Informant 15 in response to Interview Question 5; Informants 17 and 18 in response to Interview Question 4), the outcry from the telecommunications operators shows that this is just not the case. This research also suggests that the issues of continuity in governance, lack of public involvement, and nonexistent government accountability exist because of the government's incompetence in the process of policy implementation.

With regard to continuity, it can be claimed that the plans contained in the National Broadband Plan fell through as a result of the transition in government. Nevertheless, this research still questions the government's intention behind formulating a policy document that spans two government administrations without doing all in its power to ensure that most of the policy objectives and proposed action plans contained in that document were implemented in the first half of its existence (i.e. 2013 – 2015) knowing fully well that 2015 was an election year in the country. In the researcher's opinion, this document was strategically formulated to cover the period of 2013 – 2018 with no real intention of fully implementing its contents before the transition in government. The research also suggests that the issue of lack of continuity is one which Nigerians have grown accustomed to over the years and as such, the government has taken advantage of this and used it as the perfect excuse to not implement its set policies. One can only hope that the formulation of the 8-point Agenda, which also spans two government administrations, is not a ploy for the government to once again relent in its efforts on policy implementation.

The enactment of the Cybercrime Act in 2015 is another government action that raises questions. Martin and Rice (2011: 809) opined that in discussing the issue of Cybercrime, "it is inevitable that the conversation will broach matters of law and law enforcement." The Nigerian Cybercrime Bill came into existence in 2013, no doubt in response to the government policy objective of establishing Critical National Infrastructure and Cyber Security contained in the National Broadband Plan of 2013. It took two years for this Bill to be passed into law. The Bill was passed in 2015 which, as earlier noted, was an election year in the country. At first, it would

seem that there is no harm in passing a Bill two years after its first introduction seeing as there is no specific time frame for formulating legislation in any country. Anyaegbunam (2012) explained that the Nigerian constitution mandates that a Bill be read on three different occasions at the House of Representatives before it is passed into law. He further explained that the subject matter of the Bill is expected to be thoroughly scrutinized during these readings and public hearings are to be held to solicit the opinions of the necessary experts. These informed contributions are then to be carefully deliberated upon in order to ensure that a well-structured legal framework is drafted to guide the country's operations on the subject matter in question. As such, if the passage of the Cybercrime Bill took so long, it can only be assumed that the Bill went through this lengthy and time-consuming process.

However, the remarks made by Informant 4 (23 February 2016) about the Cybercrime Act being hurriedly "*passed within 10 minutes*", lacking in detail, and not going through the "*proper stages*" makes one question the period of time it took the government to officially pass this Bill. The data gathered clearly shows that a deliberation on suggestions made by industry players, which may have been a valid reason for the delay in the formulation process, did not occur as other telecommunications stakeholders such as the service operators, did not participate. What then could have delayed this legislative process for so long only to let up when there was no time left at all for the implementation of this poorly structured legislation by the then government administration? The write-up by Anyaegbunam (2012: 55) argued that the Nigerian law making processes and procedures are "clumsy" and have thus far, failed to achieve the constitutional projection of good governance. It is evident that the Nigerian government had no intentions of implementing the hastily enacted Cybercrime Act and more or less, decided two years before, that the implementation phase would be the problem of the next governing administration. To quote Informant 11 (10 March 2016), "*enforcement and implementation have always been the bane of legislation in Nigeria*." This is a trend that is proving to be interminable.

The approval of the National Research and Development Agenda also raises questions. Noting the current government's ability to unveil an 8-point Agenda within eight months of assuming office, this research would assume that three years is ample time to approve and unveil a well-structured government Agenda. In the researcher's opinion, if the government had started taking actions early enough to ensure that this Agenda was approved, it would have been in existence

long before its deadline of 2015. Also, the choice of a 2015 deadline only raises suspicions as to why the government would opt for an election year and an imminent period of government change to approve an Agenda that was first promised in 2012. This leads one to the conclusion that the government only formulates laws and policies to meet the public's expectations and perform due diligence, with no intention of actually following through with its proposed plans and initiatives. As explained by Informant 14 (10 March 2016), if the country's interest was the priority, this Agenda would have already been approved.

The issues of Public Involvement and Government Accountability clearly exist because the government has no intention whatsoever of implementing its established laws. A governing body that is solely focused on executing its policy objectives and keeping its promises to its citizenry would undoubtedly have no issues with involving the public in every step of the way. As a matter of fact, such a government would be proud to show off its achievements and would gladly report its undertakings to the public. Édes (2000) explained that certain countries go as far as appointing a Government Information Officer (GIO) who is responsible for providing the public with information and who ultimately serves as an interface between the bureaucracy and society. The critical elements of transparency, participation, and accountability are lacking in the governance of the Nigerian Mobile Telecommunications Industry because there are simply no significant government actions being undertaken, no policies being implemented, and even more disheartening, no intention to enforce plans and policies in the future. To reiterate the thoughts of Informant 7 (1 March 2016), there basically cannot be public involvement in something which does not exist.

The last interview question of this research sought the opinions of industry players regarding the progress made by the Mobile Telecommunications Industry in the last five years. In responding to this, 7 of the 18 respondents were of the opinion that the progress made by the industry fell below expectations due to existing governance and regulatory issues within the industry. The majority of the respondents however (i.e. 10 out of 18), felt that the industry progressed above expectations. On a closer analysis of this opinion, it became clear that this progress was mainly attributed to the increased size of the industry over the years by virtue of the country's population. No government actions were stated as single-handedly being responsible for the progress of this industry in the last five years.

This research study ultimately sought to determine the role and effectiveness of the Nigerian government within the Mobile Telecommunications space. To do this, the study relied on the constructs and frameworks of the Public Interest and the Capture Theories of Economic Regulation. In order to completely satisfy its principle of public welfare promotion, the Public Interest Theory requires the incorporation of the key elements of Transparency, Accountability, and Participation in governance processes. On the other hand, the less altruistic Capture Theory requires that these attributes be absent in order to be practised successfully.

Drawing from the data gathered throughout the course of this research, it is safe to conclude that the Nigerian government has adhered to the constructs put forth by the proponents of the Capture Theory of Regulation with regard to its operations within the Mobile Telecommunications Industry. The government's continuous lack of openness, poor provision of information to relevant parties, neglect of the public's opinion, and failure to provide progress reports on its activities show that it has no concern whatsoever for the meeting the public's needs, but instead, operates in secrecy and solitude with no feedback mechanisms in place because it seeks to advance its own interests. The case of multiple taxation with more taxes soon to be introduced by the government (Informant 5 in response to Interview Question 2), the suspicious disappearance of project funds (Informant 11 in response to Interview Question 4), and the government's lack of transparency in carrying out their actions (Informant 11 in response to Interview Question 2) are few of the instances that validate this conclusion.

Otoghile et al. (2014: 180), as earlier referenced, explained that the people are at the center of any good system of governance and candidly asserted that, "the objective of the governing authority should be how to positively impact the lives of the citizenry, and, the extent to which it has achieved that makes governance good or otherwise". However, the responses to the fifth interview question of this research distinctly point to the fact that the government's inactions and lack of implementation have single-handedly prevented the full realization of benefits from the telecommunications industry. Consequently, this research has drawn the conclusion that the Nigerian government operates a highly ineffective system of governance within the country's Mobile Telecommunications environment.

The government's predominant role within the industry in the last five years has been indisputably negative. Noting the fact that the governing authorities have had ample time to

prove themselves and solve the challenges of the industry or, as Levine and Forrence (1990) put it, cure the "market failures" and have utterly failed to do so with no rational explanation, the only logical conclusion is that they ultimately do not seek to advance the interests of the governed.

6.3. Recommendations

This section focuses on responding to the third sub-question of this research inquiry namely:

- What does the present situation of the Nigerian mobile telecommunications industry with respect to Cybercrime and Mobile Broadband require of its current governance and regulatory structures?

It is evident from the data gathered during the course of this study and the corresponding conclusions, that the current governance and regulatory structures within the Mobile Telecommunication Industry are less than efficient. With respect to Cybercrime and Mobile Broadband, it is clear that the government has not done enough to ensure the ultimate growth and development of the industry. As such, the present situation of the industry necessitates a radical change in the operations of the government and its agencies.

It is mind-boggling that an industry such as the Mobile Telecommunications Industry which significantly contributes to the country's economy would be more or less abandoned by the Nigerian government. The report by Pyramid Research (2013) clearly showed how a neglected government issue such as unreliable electricity supply and its consequent high operating costs would eventually lead to lower contributions by the industry to the country's tax revenue and Gross Domestic Product (GDP). With this in mind, it is incredible that the government still does not feel the need to take action and begin the implementation of its established industry policies. The Broadband Vision20: 2020 which sees Nigeria becoming one of the top twenty world economies by 2020 seems a bit more far-fetched now that the government's utter negligence to address these industry issues and implement long-standing plans and policies has been brought to light.

This research strongly recommends that the Nigerian government moves from merely formulating promising policies and initiatives, to ensuring that every one of these policies is implemented and that commensurate benefits are derived from the implementation process.

The intention to implement has to be present at the formulation phase. The government needs to stop making excuses for its inactions and prove itself to be trustworthy and reliable. The effective implementation of industry policies is the only way to completely eliminate the challenges facing the industry and consequently ensure its continuous growth, as well as that of the economy at large.

McLaughlin (1987) noted that the actual process of implementation creates a new reality and introduces change into the system. In the case of the Nigerian Mobile Telecommunications Industry, the process of change has to begin with the restructuring of the internal operations of the governing bodies with respect to the implementation of policies. This will inexorably result in greater changes in the status quo of the industry.

The government has to make moves to ensure that five years from now, industry operators do not have any cause to restate the industry challenges identified by this research as impediments to the functioning and development of the industry. If the government seriously intends the country's economy to be among the best in the world, there has to be a huge shift in focus from filling its own pockets and serving its own interests, to making the necessary resources available, providing an enabling environment for the industry to thrive, and committing to the advancement of this essential industry.

In order to restore faith in its competence, it is recommended that the government conducts its activities under the watchful eye of the public and involves the public and other industry players alike in all its decision making and implementation processes. By so doing, all industry stakeholders will be kept abreast of its efforts, irrespective of whether or not a transition in government occurs.

At this juncture, it is also important to note that if promised actions and projects are actually embarked upon by one government, the continuity of processes becomes a lot easier as the incoming administration already has something concrete and substantial to work with. Blume (2000) acknowledges that building an open government takes time, but one way this can be

achieved is by building trust through greater transparency and access to information. The government should be accountable to the public for every decision taken and every project embarked upon as well. According to Porumbescu (2015: 7), "by publicly disclosing information that discusses public sector processes and outcomes, citizens are better able to assess the way their public institutions are performing and, when performance is seen as lacking, call their government to account and instigate corrective action." Ultimately, an effective system of governance should be instituted where the government puts the people first in all its dealings, and the public has unwavering confidence in its governing body.

6.4. Implications of the Study

This research study aimed to assess the current state of governance in the Mobile Telecommunications Industry with a focus on the aspects of Cybercrime and Mobile Broadband. The study intended to go beyond the assessment of historical facts and basic mobile telephony issues and instead assess the industry based on the relevant features in its current environment. With its guidelines being the Capture and Public Interest Theories of Regulation, the research sought to accurately determine the role of the government in the Nigerian Mobile Telecommunications Industry. Conclusively, the study found that the Nigerian government has operated an Ineffective System of Governance, falling within the conceptual framework presented by the Capture Theory of Regulation.

The first interview question posed to the participants of this research aimed not only to justify the focus on this industry for this research inquiry, but also, to draw attention to the far-reaching consequences of the ultimate conclusion of this research. The responses to this question explained just how important the Mobile Telecommunications industry is to the development of the Federal Republic of Nigeria. Judging from the industry's significant contribution to the national GDP, its positive impact on all other sectors of the economy, as well as its contribution to overall employment, it became evident that Nigeria as a nation would not be where it is today without this growing industry. The major implications of the information provided by this study relate to the country's policy-makers. The study showed that these government officials can no longer be exonerated from blame in the event that government policies and initiatives are not actualized, and under no circumstances would excuses be tolerated any longer by industry

stakeholders who currently get less than what they deserve from their governing authorities. Thus, the time has come for top government officials to perform the duties they were appointed for in the first place. The final conclusion of "Ineffective Governance due to Issues of Implementation" further offered valuable knowledge and corrective measures to those who are interested in seeing the industry blossom and who ultimately yearn for the country's continuous development in all aspects.

In summary, this research analyzed the developments within the Mobile Telecommunications Industry in the last five years with respect to Cybercrime and Mobile Broadband, explained where the industry currently is and the reasons for this, and suggested ways by which the industry can progress beyond where it is currently and ultimately make for a better Nigeria. The concluding recommendation of actual implementation of government policies, if applied conscientiously, will ultimately place the Mobile Telecommunications Industry where it ought to be and positively impact the country as a whole.

6.5. Further Considerations

This research inquiry solely focused on the aspects of Cybercrime and Mobile Broadband in determining the government's actual role in the Mobile Telecommunications Industry. Nonetheless, further research can be conducted to assess the government's role in this industry by focusing on other relevant policy areas or aspects such as Telecommunications Capacity Building and Investment and Funding. The subsequent findings of these inquiries can throw more light on the occurrences within the industry, and thereafter, significantly aid the development of the Nigerian Mobile Telecommunications Industry.

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APPENDICES

APPENDIX A: Research Interview Questions

Research Title	The Role of Government in the Mobile Telecommunications Industry of Nigeria: A Focus on Cybercrime and Mobile Broadband Policies.
Researcher	Isioma Ruby Obi
Institution	University of The Witwatersrand

1) Of what significance is the Nigerian Mobile Telecommunications industry to the country's overall development?

2) In your opinion, what elements are necessary to ensure the sustained growth and development of the Nigerian Mobile Telecommunications Industry?

3) The Nigerian Senate passed the Cybercrime Act into law in order to eliminate electronic fraud and other cyber related crimes. What actions have been taken by the Nigerian Communications Commission as a member of the Cybercrime Advisory Council, and the government as a whole to ensure that the Act effectively achieves its objectives?

4) Within the last five years, it has become increasingly difficult to carry out mundane activities such as business transactions and a variety of virtual communications without internet connectivity. The government and the independent regulatory body have introduced certain broadband initiatives such as the Wire Nigeria (WiN) Project, the Universal Service Provision, the State Accelerated Broadband Initiative (SABI), etc., which ultimately aim to provide better broadband services across the nation. How effective have these governing authorities been in implementing these initiatives? What actions have they taken to facilitate broadband deployment and development across the nation and how were they held accountable in this regard?

5) How has the government, by virtue of its actions and decisions in the areas of Cybercrime and Mobile Broadband, contributed to the realization of benefits from these areas?

6) In your opinion, how have the government and the regulatory body handled the community relations content with regards to the implementation of Cybercrime and Broadband policies? To what extent would you say that these governing authorities have involved the public in their actions?

7) The Ministry of Communication states in its National Information and Communication Technology (ICT) Policy document that one of its objectives for enhancing future Research, Development and Innovation in the country's ICT sector (telecommunications inclusive) is to ensure that a National Research and Development Agenda is developed and approved by the end of 2015. In specific terms, what actions were taken by the government to ensure that this policy objective was realized and how was the government held accountable in this regard?

8) As a stakeholder in this industry, would you say that the progress made by the Nigerian Mobile Telecommunications Industry in the last five years fell below or above expectations? Do you think the industry as a whole is where it ought to be now? Why are you of this opinion?

APPENDIX B: Participant Information Sheet

My name is Isioma Ruby Obi, and I am a Masters of Management student from the University of The Witwatersrand, Johannesburg. I am conducting a research on 'The Role of Government in the Nigerian Mobile Telecommunications Industry' as a requirement for the completion of my Masters Degree. For the purpose of my research, I will be focusing specifically on the aspects of Cybercrime and Mobile Broadband and the government's actions in these areas. The ultimate aim of this research is to examine the government's actual contribution to the Mobile Telecommunications Industry and thereafter, make useful suggestions that will aid the development of the industry as a whole.

As a key player within the Nigerian Mobile Telecommunications Industry, you are invited to take part in this research study. You have been selected to participate in this process because I strongly believe that your wealth of knowledge obtained from years of experience within the industry makes you a credible research participant. If you are willing to participate in this research process, an open-ended interview lasting 60 – 90 minutes will be conducted with you to elicit your opinions on the happenings within the Mobile Telecommunications Industry. The eventual duration of the interview will depend on the content and amount of information supplied. With your consent, the information supplied by you will be recorded using an audio electronic recorder. During the interview process, you may refuse to respond to questions which you feel uncomfortable about. You may as well withdraw from the entire process at any point in time if you deem it necessary without suffering any adverse consequences. A convenient interview time and venue will be selected by you in order to ensure that the process takes place under tranquil conditions.

It is important to note that your participation in this research process is entirely voluntary, and your refusal to participate will not result in penalties of any kind or loss of benefits to which you are otherwise entitled. Throughout this research process, your identity (i.e. name and official position) will not be disclosed and you will remain entirely anonymous. All information provided by you will be kept confidential and will be used solely for research purposes. At this juncture, it is important to clarify that no payments will be made to you for your participation in this research.

The findings and conclusions of this research study will be presented in a Masters Dissertation and will be made available at the Library of the University of The Witwatersrand. This Dissertation will also be made available on the world-wide web for public reading. A summary of this research study can also be made available to you upon request. Any further enquiries concerning this research study can be directed to the undersigned.

Thank you.

Yours faithfully,

Isioma R. Obi

APPENDIX C: Research Consent Form

I have been provided with the relevant information about the research being conducted by Isioma Ruby Obi and upon understanding this information, I hereby consent to participate in this research study.

I clearly understand that:

- Participation in this research study is entirely voluntary and I am allowed to withdraw from the process at any time after commencement without suffering any penalties or losses;
- I may refuse to respond to certain questions asked if I feel uncomfortable about them without suffering any adverse consequences;
- All information supplied during the course of this research investigation will be used solely for research purposes;
- My identity and that of my organization will not be disclosed during the course of this research;
- No payments will be made to me for taking part in this research study;
- The findings and conclusions of this research study will be presented in a Masters Dissertation and a summary of this research study can also be made available to me upon request;
- The researcher can be contacted for any further enquiries concerning this research study.

By consenting to take part in this research study, I am agreeing to be interviewed and questioned about happenings within the Nigerian Mobile Telecommunications Industry.

Participant's Signature _____ Date _____

APPENDIX D: Research Consent Form (Audio Recording)

I have been provided with the relevant information about the research being conducted by Isioma Ruby Obi and upon understanding this information, I hereby consent to participate in this research study. I also consent to the use of an audio recording device during the interview process. I understand that all information supplied by me concerning this research topic will be recorded with an audio recorder for ease of interpretation and I fully agree to this.

Participant's Signature _____ Date _____