THE ROLE OF NATIONAL COMMUNICATION AUTHORITY IN REGULATING THE TELECOM INDUSTRY IN GHANA, IN THE LIGHT OF THE UK NATIONAL TELECOMMUNICATION REGULATORY AUTHORITY.
(i.e. OFCOM EXPERIENCE)

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Deadline for submission: ..... (10/15/2009):

Number of words: 16,236 (max. 18,000)

01.10.2009

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ACKNOWLEDGEMENT

At the conclusion of such a great task, it is very important to acknowledge the input of many people who have directly or indirectly contributed to such an achievement.

My profound gratitude goes to my parents Mr. David Azuayi and Mrs. Esther Azuayi for their support and encouragement to me throughout the programme.

I extend great appreciation to my Supervisor, Dr. Lee A. Bygrave, for the timely comments and advice and to Per Kaare Svendsen and Prof. Jon Bing, Bente Lindberg Krabøl (University of Oslo) and all members of the Faculty of Law, University of Oslo, Norway and to all members of the Norwegian Research Center for Computers and Law for everything.

Sincere thanks also go to all the staff members of The Office of Communication (OFCOM) in the United Kingdom and the National Communication Authority (NCA) In Ghana.

This work would have been incomplete without the assistance of friends in Norway, especially: Abraham Tetteh and the family, Allain Pierre Nyingakuik, Alebachew Birhanu, Ebenezer Paintsil and the family and all my colleagues at the University of Oslo, Norway and many others who made life to me in Norway worth living.

Many thanks to my siblings particularly Philip Azuayi and his Family in Italy, Michael Azuayi ,Rebecca Azuayi and Abel Azuayi and his family in The Netherlands for their support and encouragement.

Finally, special thanks go to Thelma Nani (Ghana) for her support both material and psychologically. It is not possible to acknowledge individually, each and every one who assisted me in this project; however my thanks go to you all.
ABSTRACT
As the Ghanaian economy moved from a regime of command and control to a market oriented one, several far-reaching reforms have been implemented to help transform the economy and put it on a path leading to the attainment of middle-income status. These reforms, in most cases, sought to relax the regulatory environment such that regulations serve more as lubricants for fair competition than as barriers in the way of development. The telecommunication sector was also blessed with one of these reforms. In the wake of the telecom sector reforms the state-owned Post and Telecommunication Corporation, the only major player in the telecom sector at the time, was split into two entities namely, Ghana Post and Ghana Telecom. In a bid to liberalise the sector, Ghana Telecom was privatised and a second network operator was licensed to create duopoly in the telecom sector industry.

Prior to the telecom sector reforms not less than four regulatory bodies were regulating the sector but their functions were ceded to the National Communication Authority (NCA) as the sole regulator of the sector as the reform gathered momentum. The stage was, therefore, thought to be set for a fair competition among operators. The rate of infrastructure development more than doubled and the quality of service improved slightly during the post-reform period. However, the two network operators could not meet their expansion targets set in their license in terms of fixed line installations. Heavy pecuniary penalties were slapped on them. Operators mostly blamed their non-performance on the Regulator’s inability to create a level playing field in the sector. The key problem of the sector centres on “Access and Interconnection” between operators but the Regulator has not been adequately and firmly positioned to deal with this problem.

For the Regulator to make an impact it is suggested that the NCA Board be properly constituted just like (OFCOM in the UK) while efforts are made to appoint its substantive head, develop its regulatory guidelines, and make it completely independent of government control and above all, incorporate some of the Directives as contained in EU legal regulatory framework (as adopted in the UK) which are appropriate, in the NCA ACT of Ghana.
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ACRONYMS

FRCB  Frequency Registration and Control Board
P & T  Posts and Telecommunications
NCA  National Communication Authority
ITU  International Telecommunication Union
NRA  National Regulatory Authority
OFCOM  Office of Communication
OFTEL  The Office Of Telecommunications
FCC  Federal Communications Commissions
CRTC  Canadian Radio Television and Telecommunications commission
FRCB  Frequency Registration and Control Board
NDC  National Democratic Congress
NPP  New Patriotic Party
IMCG  Independent Media Corporation of Ghana
NFRCB  National Frequency Registration and Control Board
MCI  Million Cellular International
MP  Member of Parliament
NTP  National Telecom Policy
RIO  Reference Interconnection Offer
BBC  British Broadcasting Corporation
WTO  World Trade Organisation
GMTV  Good Morning Television
BT  British Telecom
DGT  Director General of Telecommunication
EU  European Union
SMP  Significant Market Power
NMC  National Media Commission
GT  Ghana Telecom
GSM  Global System for Mobile Communications
IMF  International Monetary Fund
GNP  Gross National Product
PBX       Private Branch Exchange
PABX     Private Automatic Branch Exchange
CHAPTER ONE

1.0 Introduction

In the past decades telecommunication organizations in most countries were state-owned and most governments were reluctant to allow for private participation.

The experience in Latin America confirms that privatizing the telecommunication industry does not always translate to increased access (Winseck, 2002). It is also the case that for the reasons of national sovereignty many African and Arab countries are reluctant to privatize totally. National telecom networks in developing countries are generally seen as symbols of national pride. These observations hold true for Ghana both in the parliamentary debates about the law that deregulated telecom and the government’s timid effort to implement it. The fear of alienating the people and making them feel a sense of national loss may have accounted for why Ghana did not totally privatize, but rather opted for a regulated sector with controlled private sector participation.

During the debates in 1994, a member of the Ghanaian Parliament posed a caution to the House that Ghana Telecom (GT) “is a symbol of national sovereignty and that any communication policy should aim at protecting it.” According to Winsock the general unwillingness to privatize completely suggests that the global dogma of deregulation in the 1980’s and the 1990’s is being everywhere.

The telecommunications industry has been undergoing a fundamental change in structure, from that of monopoly to one of competition (Walden & Angel, 2005).

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2 Ian Walden & John Angel (2005), Telecommunications Law And Regulation
This phenomenon has become possible in this contemporary times because of the policy of liberalization and privatization adopted by governments in most countries with the aim of creating competition and injecting efficiency in the telecommunication industry.

As a result of this, there has been a lot of private telecommunication companies in the Ghanaian telecom industry for the past few years.

However, an independent regulator known as the National Communication Authority has been set by an Act of parliament to regulate the operations of these various companies that has sprang up in the industry and for the new ones that are yet to enter the industry in order to ensure a level playing field and effective competition in the industry.

The emerging consensus is that “strong governance regimes are vital pillars of telecommunications policy reforms.” But is the post colonial state capable of setting up an effective regulatory mechanism? This thesis tends to examine in detail the role of the Ghana National Communication Authority in the wake of the privatization of the telecom sector in the light of the experience of the UK. National Telecommunication Regulatory Authority (i.e. OFCOM) as the national regulator to oversee duopolistic telecom sector. What does it mean for a downsized state and its institutions such as the National Communication Authority (NCA) to regulate big business in an emerging telecom sector? Is the postcolonial state up to the task of instituting a strong governance regime over the steamy juicy sector of telecommunications in a flourishing era of digital capitalism.

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1.1 Statement of the Problem
This work sought to interrogate the contemporary communication policy practices of the Ghanaian State. The rise of the global digital economy has transformed the hitherto bland telecommunication sector in developing countries, particularly Ghana, (with the heavy influx of foreign telecommunication companies in the sector) into a steamy and juicy pie that attracts the attention of big business, the expertise and finance of international capital, as well as local businesses. In its bid to increase phone access, the post colonial state in Ghana, under the tutelage of organizations such as the World Bank has embarked on setting in place a new regime of liberalized and privatized telecom industry.

A new regulatory agency, National Communication Authority (NCA) has been set up to independently oversee the sector. But the questions to ask is whether, the purportedly independent NCA can face the challenges and temptations of the new digital economy? And whether the NCA is up to the task of regulating the telecom sector in Ghana particularly through the law on Access and interconnection between operators in the industry to ensure fair and effective competition taking into consideration the role of ‘Big’ National Telecom Regulators such as OFCOM in the UK. Also if there are gaps between the two regulators how do we bridge this gap? More specifically, what need to be taken to amend the existing legal regulatory framework? (Implicit: does the “Ofcom model” provide an appropriate legal regulatory framework for Ghana to follow?)

1.2 Justification of the Study
Since the telecom sector (world-wide) in the past was state-owned of which Ghana is not an exception, there was no need for an independent or a separate regulator to regulate the sector. However, the policy of liberalization and privatization and the fact that there is political stability in the country there has
been a lot of private and foreign investors in the telecom sector and therefore we have currently a lot of telecommunication companies in the industry. As a result a regulatory body known as the National Communication Authority (NCA) has been set up by an Act of Parliament to regulate and control the operations and activities in the industry to ensure fair and effective competition and ensure the growth of the sector.

Conversely, the study focused on how the NCA regulates the telecom industry through the grant of license for telecom service providers to operate in the industry and more particularly how it is able to regulate the industry by ensuring that Access is granted by “big” operators of their heavy physical equipment to the new entrants and also interconnection is made possible between operators to ensure fair and effective competition in the industry. For instance, for the past few months, telecom giants like Vodafone, Zain telecom (a Kuwaiti telecom company), Glow etc have all joined the Ghanaian telecom industry hence the need to re-look at the NCA role of granting operational license and also on the law on Access and interconnection.

The thesis is intended to examine the role of NCA and the adequacy of the law on Access and interconnection and juxtapose or compare it to that of OFCOM and the E-U legal regulatory framework. Besides the fact OFCOM is an established regulatory body in the UK telecom industry OFCOM, is used as a comparative base or standard for comparison due to the fact that, the UK being the former colonial masters of Ghana and the fact that the two countries operate similar systems I thought that there are a lot to learn from their regulatory body in the telecom industry which is more vibrant as compared to that of Ghana which happens to be a new institution. Comparison will also be made with the E-U regulatory model on Access and interconnection.

This study aims at making a contribution to the general hypothesis that the development of an adequate legal regime for ICT’s generally will enhance their ability to positively affect
the governance process⁴. By making Access and interconnection possible, it is presumed that access to telecommunication service will improve and with the proper regulatory framework in place, programmes such as e-commerce, E-democracy/governance and e-learning and their consequential benefits can be made publicly available.

1.3 Hypothesis
The lack of adequate and tighter laws on Access and interconnection will drive infant operators out of operation and consequently kill competition completely and this means that there will be high tariffs low quality of service and others.

1.4 Objectives of the Study
The overall objective is to examine the role of the National Communication Authority in Ghana in regulating the telecommunication industry particularly through the legislation on Access and Interconnection using OFCOM in UK and also the E-U legal regulatory framework as the comparative basis for the assessment.

The specific objectives of the study are -:

1. To examine the role of NCA and the current legal regulatory framework on Access and Interconnection in the Ghanaian telecom industry.

2. To examine how OFCOM regulates the UK telecom industry through the legislation on Access and Interconnection.

3. To propose the way forward or advance measures that need to be taken to amend the existing legal regulatory framework if there is a gap between the Ghanaian telecom Act (or deficiencies in the NCA role) and that of UK and the E-U as a whole

⁴ E.M Bakibinga, (2004), Regulating market entry in the telecommunications sector in an integrated East Africa: Towards a common Licensing framework.
1.5 Scope of the Study
The geographical scope of the study was mainly limited to Ghana. The role of OFCOM was also discussed to the extent that it was relevant to the study. The E-U legal regulatory framework (i.e., The Access Directive 2002/19/EC) was also made reference to.

1.6 Research Methodology
The researcher actually applied the problem solving methodology and this was restricted to describing the difficulty addressed, defining whose and what behaviors constitute the difficulty, specifying the causes of the problematic behaviors before proposing solutions to the identified problems. The qualitative research methodology was also applied by the researcher. There was also a historical analysis of the development of telecommunication in Ghana and the genesis of the NCA. It is therefore, imperative to state that much emphasis was placed on secondary resources. However, the research involved the following:

1. An extensive and a comprehensive review of relevant literature from distinguished centres such as the Norwegian Research Centre for Computers and Laws (NRCCCL), the faculty of law library of the University of Oslo, parliamentary debates of the Ghanaian parliament, a variety of communications law centers and universities and also more importantly internet resources. This literature included legislative policy documents and analyses by various academic scholars from Africa, Europe and the United States.

2. Qualitative interviews with some officials in NCA and other professionals and private sector practitioners involved in the telecommunication sectors in Ghana and other parts of the world (including the UK)

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1.7 Synopsis

Chapter one basically encompasses a brief introduction to the study, the objectives that the study was intended to achieve, the statement of the problem, the scope or the framework of the study, reasons justifying the conduct of the study and the research methodology that was used in conducting the research.

Chapter two covers a historical analysis of the development of telecommunication in Ghana, the genesis of NCA, the basic principles, objectives and the procedures involved in licensing and more importantly the role of NCA in regulating Ghanaian the telecom industry, through the existing legal framework on Access and interconnection to ensure fair and effective competition.

Chapter three deals with an overview of OFCOM as the regulator of the UK telecom industry and a brief examination of the appropriate legal regulatory framework of the E-U on Access and interconnection

Chapter four concentrates on the findings, a summary of recommendations and conclusion
CHAPTER TWO

2.0 HISTORICAL BACKGROUND AND THE DEVELOPMENT OF TELECOMMUNICATIONS IN GHANA

2.1 Introduction

The Republic of Ghana is a West African nation on the Gulf of Guinea with an area of about 92,000 square miles and a population of about 20 million. Its topography consists of forest and savannah, and the country is divided into ten regions, with the national capital located at Accra. Ghana has a lot of ethnic groups with the six largest ones as the Akans (44% of the population), Ewe (13%), Gad–Adangbe (8%), Mole–Dagbane (16%), Guans (4%), and Grume (3%), and the official language is English. The Volta is Ghana’s largest river and the location of the Volta lake on which are built two hydro dams, Akosombo and Kpong, with a total capacity of about 1.12 gigawatts.

Ghana’s main export products are cocoa, gold and timber other exports include diamond, bauxite and manganese. The fluctuation of world market prices and the absence of processing industries for these products have historically affected Ghana’s revenues. Ghana imports oil for energy consumption, exports hydro electricity to Togo, Benin and Burkina Faso.

The world bank’s estimate of Ghana’s GNP in 1991 was about 440 per capita. Since 1984 Ghana has been implementing an Economic Recovery Programme, which gives the country easier access to International Monetary Fund (IMF) and World Bank loans.

Since 1981, Ghana has been a unitary Republic ruled by decree. In November 1992, however, an election was held to elect a president for the next democratically
elected parliamentary government. In January 1993, following parliamentary elections, Ghana returned to a parliamentary form of government.\textsuperscript{6}

2.1.1 The Situation of Telecom in the Pre-colonial Era

The first telegraph line in Ghana (then known as the Gold Coast) was a ten mile link installed in 1881 between the castle of the colony’s then governor in Cape Coast and Elmina. The line was extended to Christianborg Castle near Accra, which became the seat of government, and later extended still further to Aburi, about 26 miles outside Accra.\textsuperscript{7}

In 1982, the first public telegraph line, stretching over a distance of 2.5 miles was erected between Christianborg and Accra. Between 1887 and 1889, these telegraph lines were extended to cover Accra, Pram, Winnebago, Saltpond, Sekondi, Ankobra, Dixcove, and Shama all colonial castles or fort towns as well as commercial ports and fishing centres\textsuperscript{8}. In 1886, telegraph lines were extended to the middle and northern parts of Ghana into the territory of the Ashanti’s. Between 1900 and 1901, this new communications technology was used to subdue the Ashanti’s in the Yaw Asantewaa war.\textsuperscript{9}

Because Ghana telegraph line were often cut down by superstitious locals were convinced that the cables were “magic” lines being used by the Europeans to win wars. Ghana’s colonial governor entrusted the safety and security of the lines to the tribal chiefs in 1886. The colonial governors offered chiefs handsome rewards for reporting any damage done to the lines.

\textsuperscript{7} Ibid
\textsuperscript{8} Ibid
\textsuperscript{9} Ibid
However, in order to improve communications in the southern part of the country, the first manual telephone exchange (70 lines) was installed in Accra in 1892. Twelve years later, in 1904, a second manual exchange consisting of 13 lines was installed in Cape Coast\textsuperscript{10}.

2.1.2 Situation Of Telecom Under The English Colonial Rule
Having looked at how Ghana’s telecom was during the pre-colonial era it is therefore pertinent to also describe briefly how the situation was during the British imperialism.

Ghana’s telecommunications infrastructure was laid down and expanded by the colonial administration mainly to facilitate the economic, social, and political administration of the colony. In 1901, for example, the Ashantis were brought under British colonial rule, and telegraph lines were accordingly extended from Accra to the capital of the Ashanti's Kingdom and beyond. By the end of 1912, 1,492 miles of telegraph lines had been constructed to meet to link forty–eight telegraph offices spread throughout the country\textsuperscript{11}.

Before the beginning of world war one in 1914, 170 telephone subscribers had been served in Ghana, but it was between world war one and 1920 that the backbone of the main trunk telephone routes Accra – Takoradi, Accra – Kumasi, Kumasi – Takoradi, and Kumasi – Tamale was built using unshielded copper wires\textsuperscript{12}. By 1930, the number of telephone exchange lines in Ghana had grown to 1,560, linking the coastal region with the central and northern parts of the country\textsuperscript{13}.

Due to the depressed of the global economy in the 1940s there was little or no growth in telecommunications in Ghana during and immediately after the second

\textsuperscript{10} Ibid
\textsuperscript{11} Ibid
\textsuperscript{12} Ibid
\textsuperscript{13} Ibid
world war. Nevertheless, during that period carrier equipment was installed on the Accra – Takoradi, Accra – Kumasi, Kumasi – Takoradi, Kumasi – Tamale physical trunks. These were later augmented by 1 + 3 carrier equipment, thus increasing the trunks connecting these towns threefold.

In 1953, the first automatic telephone exchange with 200 lines was installed in Accra to replace the manual one erected 63 years later. Three years later in 1956, the trunk lines connecting Accra, Kumasi, Takoradi, and Tamale were upgraded through the installation of a 48- and 12-channel VHF network.\textsuperscript{14}

\subsection*{2.1.3 The Post Colonial Period}

The attainment of independence by Ghana in 1957 brought new dynamism to the country’s telecommunications development. A seven year development plan launched just after independence hastened the completion of a second new automatic exchange in Accra in 1957. By the end of 1963, over 16000 telephone subscribers and 32000 rotary type telephones were in use in Ghana.\textsuperscript{15}

Due to the rapid growth in commercial activities in mining, timber, Cocoa, shear butter and the like in outlying parts of the country, new manual exchanges were installed in Cantoments, Accra, Swedru, Koforidua, Ho, Tamale, Sunyani, and Kumasi during the post independence years. The installed exchanges were stronger (step-by-step) and Philip UR 49 switch exchanges.

The management of Ghana telecommunication institutions was initially assigned to the Public Works Department but was transferred to the post office following the enactment of the Post Office Ordinance in 1886.\textsuperscript{17}

\begin{flushleft}
\textsuperscript{14} Ibid \\
\textsuperscript{15} Ibid \\
\textsuperscript{16} Francis K. A Allotey & Felix K. Akorli: www.vii.org/papers/ghana \\
\textsuperscript{17} Ibid
\end{flushleft}
administered by the government ‘s Post And telecommunication Department until the early 1970’s.

2.1.4 The Present Era
A new chapter in the development of Ghana’s telecommunications began in November 1974, when the Post And telecommunication Department was a declared a Public corporation by the National Redemption Council Decree No. 311. The department was placed under the authority of the ministry of transport and communication, which currently has been segregated and therefore, there is a separate/whole ministry of communication today, responsible for the formulation of policy and the control of Ghana’s telecommunication sector.

Under the instrument of incorporation, the Post And Telecommunication corporation was to be administered by a board of directors who function as the corporation’s governing body. There is a director general, who is the chief executive accountable to the board of directors and responsible for the organization, maintenance, and development of all the corporation’ services ( domestic and international) as well as the determination of financial policies. The director general also ensures that government policies on telecommunication are implemented and that rules and regulations governing the various services as well as international conventions are correctly interpreted and acted upon.

2.2 Deregulation Of Telecommunications In Ghana
Prior to 1980, the Post And telecommunications was the sole supplier and distributor of all telecommunications terminal equipment to the public\(^\text{18}\). It was also the only institution that could install and maintain telecommunications equipment and run telephone services to the public.( with the exception of two - way radio telecommunications equipment, which was also being supplied and installed by a few private foreign companies ). In 1987, however, the government of Ghana relaxed

\(^{18}\) Ibid
the regulations, and private companies began to be issued licenses and allocated frequencies enabling them to produce, install and maintain any compatible telecommunications equipment\textsuperscript{19}. By 1992, about forty telephone companies were in operation, including a local cellular company and a paging company\textsuperscript{20}. Other companies supply, install and maintain terminal equipment such as facsimiles, telephones, PBX and PABX (with capacities ranging from 4 to 4,300 extensions and manufactured by such companies as Panasonic, Toshiba, AT & T, Alcatel, Philips and British Telecom). Most of the companies now allowed to operate in Ghana are subsidiaries of companies in Europe and the United States\textsuperscript{21}.

As a result of deregulating the telecom industry in Ghana a lot of foreign companies have joined the industry, and therefore making the industry very competitive. This phenomenon has also forced a lot of local telecom companies to run out of business. However, in the subsequent pages the study will focus on how the NCA can regulate the sector effectively through its licensing role in order to ensure fairness and stability in the market in order to encourage local investors into the industry to compete equally with the foreign companies.

2.3 Telecommunications Policy In Ghana
Before I delve deep into the role (with specific emphasis on the licensing role of NCA) of NCA in regulating the telecom sector, it is therefore imperative to discuss the national policy relating the telecom sector. Hence this section actually focuses on the nature of the country’s telecom policy which was documented in Ghana.

The evolution of the telecommunications industry over the past several years has yielded a wide array of dramatic changes in the technology of human communication, and the role that advanced electronic communications play in all

\textsuperscript{19} Ibid
\textsuperscript{20} Ibid
\textsuperscript{21} Ibid
aspects of society and the economy. Among the most important developments aside from technological innovation and newness, has been the transformation of the global and domestic telecommunications industry from a largely monopolized, state–owned model to a broadly competitive, private, and open market model. Ghana has been among the leading countries in Africa in promoting these developments; Ghana first opened its basic telecommunications industry to private competition a decade ago, Ghana continues to be a leader among African nations in the expansion of market entry, the development of new services and business arrangements and the growth of the telecommunications sector generally.

This policy intends to move Ghana yet further forward, by promoting still broader opening of all telecommunications market segments to private, competitive market forces. The government is convinced that the interest of consumers and businesses in Ghana to achieve optimum access to the best quality and most cost–effective telecommunications service will be accomplished through the wisdom and incentives of the competitive market.. To this end, this policy seeks to establish conditions that will be most favorable to encouraging further sector growth, and the reorientation of the overall market structure, through affirmative liberalization and competition policies. The provisions of this section set forth the terms under which the continued leadership of Ghana in these areas will be fulfilled.

2.3.1 Principles Of Competitive Market Development
The development of telecommunications in the Republic of Ghana shall be based upon principles of open markets and fair competition. To the greatest extent possible, the government shall encourage telecommunication growth through the initiative and innovation of the private, competitive market place at all levels, with particular emphasis on promoting local entrepreneurship. 

\[\text{22} \text{ National Telecommunication Policy of Ghana, 2004 P.2} \]
\[\text{23} \text{ Ibid} \]
Regulation of entry and operation in the Ghana Telecommunications market shall be governed by principles of fair competition, equitable treatment of all players, and practical oversight of operators with significant market power. Licensing and regulation shall be technologically neutral, to encourage economically efficient and innovative market development\textsuperscript{24}. Ultimately, the interests of consumers in obtaining high quality, accessible, and affordable telecommunication services shall be the primary objective of all policy and regulatory decisions.

2.3.2 Telecommunications Market Structure
The government recognizes that the technology and markets of telecommunications have been changing rapidly, and will continue to evolve in unpredictable directions in the future. The traditional market for telecommunications in Ghana must evolve with these changes, to allow for robust and flexible developments of new services, marketing options and customer choices\textsuperscript{25}. At the same time, it is not practical to overhaul the entire present structure of the telecommunications market immediately. The goal of this policy is to establish a fundamental vision for the eventual market structure that will be most beneficial to Ghana’s citizens and businesses, and to set in motion the procedures and incentives that will encourage the market to evolve toward that vision. This section of the policy identifies the main elements of the current and emerging market structure for telecommunications service in Ghana.

2.3.3 International telecommunications Segment
The international market segment consists of telecommunications facilities and services which carry communication signals across Ghana’s international borders. These however, include the following elements:

a. Licensed gateway operators
   - Operators with official authorization to maintain physical gateway connections to international destination.

\textsuperscript{24} Ibid., p.2  
\textsuperscript{25} Ibid, P. 3
- As of June 2004, there were two such licensed gateway operators in Ghana.26

SAT – 3 acess
- Ghana telecom’s consortium relationship with the SAT – 3 cable ownership, and the international transit capacity this provides.

Private Licensed VSAT Systems
- Licensed for private user access to international data networks via VSAT technology.

Unlicensed international bypass services27
- Unauthorized service providers utilizing new technologies to connect international voice calls to the local public network, bypassing the gateway facilities and charges of the licensed international operators.

2.3.4 Domestic Public Telephone Services
The market segment for domestic public telephone services includes all facilities and services that connect telephone calls between users within Ghana. This segment, however consist of the following components:

a. Fixed Wire line Networks
   - Traditional, wire line telephone networks, connecting fixed locations via permanent terrestrial links.

   - Two major such networks are licensed (as of June, 2004) to offer basic telephone services throughout Ghana.

26 David N. Townsend & Associates, Draft # 3.1 June 8th, 2004
27 Ibid
b. Wireless Mobile Networks
- Telephone networks which connect calls via wireless radio technologies, traditionally utilizing cellular mobile technology and frequencies as defined by (ITU) standards.

- Operation of these networks requires both formal authorization to utilize a designated frequency band, as well as a license to provide public (mobile) telephone service.

- As of February, 2009 there are currently five licensed wireless mobile network operators in Ghana and all five are actively providing\textsuperscript{28} mobile telephone services. Another mobile network operator is on the verge of being licensed to also operate by April, 2009.

c. Public Telephones and Telecenters
- These services consist of public access locations that allow consumers to place telephone calls for a one-time charge.

- Traditionally public pay telephones have been owned and operated by licensed telephone network operators, but informal and unofficial arrangements exist whereby private businesses operate telecasters which resell telephone calls to the public.

2.4 Liberalization and Licensing Regime
Under this policy, further expansion of the telecommunications market will be encouraged through a process of active, phased liberalization of market segments, and a licensing regime that facilitates widespread entry into the market place\textsuperscript{29}. This section identifies the target objectives for liberalization and licensing options within

\textsuperscript{28} Ghana Telecommunications Policy (section 2)
\textsuperscript{29} Ibid p.3
each market segment. Responsibilities for further elaborating and implementing the licensing processes are defined in section 3 of the policy.

2.4.1 International Telecommunications

There shall be a phased process of allowing additional international gateway licenses to be made available initially to all existing licensed telecommunications operators in Ghana\(^{30}\);

The NCA, in consultation with the ministry, shall establish the specific qualifying criteria that operators must meet to be awarded an international gateway license; such criteria shall be transparent and competitively neutral, and such licenses shall carry similar obligations for all licensees\(^{31}\);

The eventual, long term objective of this policy shall be to remove any limitations on the number and type of international gateway licenses, upon determination by the ministry and the NCA that the market is sufficiently competitive and developed to function adequately without license restrictions;

The NCA, in consultation with the Ministry, shall also establish standards and procedures for issuing class authorizations to non-facilities-based international (bypass) telephone service providers. Such authorizations will permit the service provider to utilize any technology to receive or transmit international communications over facility-based networks, subject to cost-based and economically compensatory interconnection charges, and such other reasonable fees and charges as the NCA shall determine. Operators which seek to offer such services without proper authorization shall be deemed illegal, and subject to

\(^{30}\) Ibid
\(^{31}\) Ibid
appropriate termination of access, fines and other remedies to be determined by the NCA\textsuperscript{32};

Private users may continue to obtain and operate access facilities to serve their internal international telecommunications requirements without limitation, subject only to obtaining authorization from NCA. NCA shall not place unreasonable obligations, restrictions, or fees upon such private international access facilities.

\textbf{2.4.2 Domestic Public Telephone Services}

The NCA, in consultation with the ministry, shall expedite the full opening of the market for construction and operation of domestic telephone networks and services. The NCA shall establish a licensing process for such domestic networks that imposes minimal restrictions on entry, and reasonable levels of common obligations and fees for new licensees.

In issuing licenses for domestic telephone services, NCA shall apply technology–neutral standards, allowing licensed operators to deploy any combination of technologies that they choose to serve their customers, subject only to requirements for frequency authorization, and appropriate network inter-operability and quality of service standards.

New and existing domestic telephone operators shall be permitted to introduce services anywhere within Ghana, subject only to broad class licenses governing standard requirements and obligations for interconnection, basic service tariffs, universal service contributions and other common license provisions to be determined by NCA. Such requirements must be competitively neutral\textsuperscript{33}.

\textsuperscript{32} Ibid p.7
\textsuperscript{33} Ghana Telecommunications Policy ( section 2 )
NCA may also establish special rules and incentives to encourage operators to construct and operate telephone facilities in rural and other underserved areas.

2.4.3 Frequency Authorizations

Any domestic telephone operator that seeks to provide service partially or entirely via wireless radio transmission must obtain a formal authorizations for use of a designated band of the frequency spectrum. Once such a frequency assignment has been granted, the operator shall have unrestricted rights to utilize the spectrum for any form of public telephone service, consistent with the terms of its license.

In particular, there shall be no arbitrary restrictions on the use of authorized radio transmission frequencies to provide any combination of mobile and fixed telephone services that an operator and its customers may choose. Authorized “mobile” operators may also install and operate “fixed” telephone services, utilizing their assigned radio frequencies and / or wire line connections, without undue limitations, subject only to competitively neutral license obligations.

The NCA may assign frequency bands on a national or a regional geographic basis, to ensure the most efficient utilization of the spectrum and development of services. Geographically narrow assignments of unused frequency bands may be made available to smaller, local operators in remote areas to promote cost effective development of local networks and services. Such assignments must not interfere with nationwide or regional authorizations for mobile or other wireless telecommunications applications.

2.4.4 Dedicated Transmission Networks

There shall be no undue restrictions on construction and operation of dedicated networks for wholesale, private line, and / or public distribution purposes.10

Such networks shall be subject to class license authorizations, which may include related obligations such as Gifted contributions, facility sharing, competitive
neutrality, and transparent terms and conditions for access to and use of network capacity.

Where construction of such dedicated networks depend upon access to public rights of way, any operator obtaining such rights of way must share access with any additional network providers, under competitively neutral and economically compensatory terms and conditions, to be negotiated between the operators under NCA guidance.

Where dedicated transmission networks are intended to provide for public distribution services such as cable TV, the NCA may establish additional responsibilities and criteria for the operation of such services, including pricing and content regulations as appropriate.

2.4.5 Internet Services
There shall be no limitations on entry and operation in the market to provide internet services.

ISPs shall require authorization via class licenses only, subject to minimal obligation and regulatory oversight, obligation may include contributions to Giftel contribution and/or other universal access responsibilities, quality of service standards, customer service guarantees; there shall be no regulation of ISP pricing.

ISPs integrated with dominant licensed telephone and backbone network operators must be established as separate subsidiaries or affiliates, may not be cross-subsidized directly or indirectly by dominant telephone service revenues, and must conform to all competitive safeguards that NCA shall establish. 34

34. Ghana Telecommunication Policy (section 2)
2.5 THE ROLE OF NCA IN REGULATING THE GHANAIAN TELECOM INDUSTRY.

Having highlighted in the previous pages of the Ghanaian telecommunication policy, it is therefore imperative to look at the role of the NCA in regulating the telecom industry. Hence, this section actually focuses extensively on the role of NCA, taking into consideration the Ghanaian Telecom policy (ie whether NCA complies with the Telecom Policy in regulating the industry).

2.5.1 Introduction

The NCA was established by an Act of Parliament, the NCA Act 524, 1996 as part of Ghana’s telecom sector reform policy implemented in 1996 to introduce privatization, liberalization, and controlled competition into the telecommunications industry\(^\text{35}\). This efforts corresponds to a global push for separate national regulatory bodies different from the regular ministries or departments of state. In 1990, there were only 12 of such bodies in the world, and by 1996 NCA became one of 53 in the world\(^\text{36}\). The figure rose to 101 by 2000(ITU, 200).

Ghana’s NCA has the regulatory responsibility of ensuring a level playing field in the industry and the attainment of public policy goals in communications. Specifically, its functions include among other things the regulation of communications by wire, cable, radio, television, satellite and other related technologies in Ghana. According to Samarajiva (2001), national regulatory bodies/agencies such as NCA emerged as part of the global demand for the creation of independent, non-arbitrary and consistent decision-making agencies to guarantee stable environment for long term investment in the telecom sector.

The NCA Act defines the responsibilities of this regulatory body as :

\(^{35}\) Amin Alhassan, (2003), Telecom Regulation, the Post colonial state and the Big business. The Ghanaian experience
\(^{36}\) Ibid
1. Setting technical standards
2. Licensing service providers
3. Providing guidelines on tariffs chargeable for services
4. Monitoring the quality of service providers and initiate corrective action where necessary
5. Setting terms and guidelines for interconnections of the different networks
6. Considering complaints from telecom users and taking corrective action where necessary
7. Controlling the assignment and use of the radio frequency spectrum
8. Resolving disputes between service providers and between service providers and customers
9. Controlling the national numbering plan
10. Controlling the importation and use of types of communication equipment; and last but not the least
11. Advising the minister of communications on policy formulation and development strategies of the communications industry.

Until the formation of the NCA, the Frequency Registration and Control Board (FRCB) administered the electro–magnetic spectrum. Before the creation of the NCA, Ghana Posts And Telecommunications Corporation (P&T) controlled matters related to telecommunication services. The NCA Act abolished the FRCB and put the new body in charge of regulating the industry. Administratively, the NCA has four directorates - Frequency Management, Regulation And Licensing, Legal and Finance And Administration - with a Director General as the overseer. In the absence of a board of directors, the Director-General reports to the minister of communications. In all respects the NCA, Act has all the trappings of power that parliament found if fit to endow a sensitive organization such as the National Communication Regulator. In formulating the bill, the government frequently referred to the Federal Communications Commission (FCC) in the USA, Canadian Radio Television and Telecommunications Commission (CRTC) in Canada, and OFCOM in the UK as its models.

A look at the trajectory of how the bill became law suggests that the parliamentary process was tortuous. The bill made its first appearance in

parliament on November 15, 1994\textsuperscript{38}, and for the next two years it moved in
and out of Parliament, first passed by the House and then voted by the
president. A revised bill was re-introduced into parliament and passed into law
two years after it was first drafted. Besides the President’s veto, a supreme
court case about the legal status of a radio station broadcasting on an
unregistered frequency also delayed the 1996 re-introduction of the bill. This
case arose because a regulatory vacuum emerged in the time spanning the adoption
of the 1992 constitution and the passing of the NCA bill into law. The freedom
of media provision of the 1992 constitution says: “There shall be no
impediments in the establishment of private press or media; and in particular,
there shall be no law requiring any person to obtain a license as a prerequisite
or a sine qua non to the establishment or the operation of a newspaper, journal
or other media for mass communication or information (Constitution of Ghana,
Chapter 12, Article 162 sec. 3)\textsuperscript{39}.

Some legal scholars argued that this article authorizes the operation of a radio
station and makes no provision for licensing at all. Working with this
interpretation, a new private broadcasting station, Radio Eye, run by an
Independent Media Corporation of Ghana (IMCG) started broadcasting without
seeking government approval. The Police traced the location of the transmitters and
confiscated them. The IMCG then took the matter to the supreme court. Thus
when the government was ready to re-introduce the bill to Parliament in 1996,
it had to wait until the supreme court decided the case. There was a theoretical
possibility, government believed, that the supreme court interpretation of the
constitution could void sections of the draft bill, if they are found to be in
conflict with\textsuperscript{40} the constitution. Fortunately for the government, the July 23, 1996
ruling of the court upheld the government’s right to regulate the radio spectrum,
if the intention is to ensure sanity on the airwaves and not to control either
speech or the media. The Supreme Court based its ruling on the constitutional

\textsuperscript{38} Parliamentary Debates: Official Report for Tuesday 15\textsuperscript{th} November, 1994, col. 574.
\textsuperscript{39} The Constitution Of Ghana, Chapter 12, Article 162 sec.3
\textsuperscript{40} The constitution Of Ghana, Chapter 12, Article 164.
clause that recognized government’s right to make “laws that are reasonably required in the interest of national security, public order, public morality and for the purpose of protecting the reputations, rights and freedoms of other persons“ (Chapter 12, Article 164, 1992 Constitution of the Republic of Ghana).

A very notable feature of the procedures that produced the NCA law was the level of contribution of industry stakeholders outside government. Parliament solicited the opinion of organizations that were going to be structurally affected by the bill. These include Posts And Telecommunications Corporation, which was going to be split into two; the Ghana Broadcasting Corporation, which was going to lose its unchecked freedom over the choice of frequencies to broadcast; the National Frequency Registration and Control Board (NFRCB), which was going to be dissolved; and the National Media Commission, which was assumed would take over broadcasting frequencies regulation. All these organizations made representations before the Parliamentary Committee on Transport and Communications. Millicom Ghana Ltd., a local subsidiary of Millicom Cellular International (MCI), then the only provider of mobile telephone services in the country, also submitted a memorandum.

On the civil society, the School of Communications Studies of the University of Ghana, the Ghana Journalists Association, Private Newspaper Publishers Associations, and Independent Media corporation of Ghana (IMCG) all made representations. (IMCG – now defunct – was then seen as a national advocate of media freedom, following its testing of the limits of the law by taking the police to the Supreme Court.) Dr. B.D.K. Henaku of the University of Leiden Institute of Law and Mr. Ohene Ntow, a local journalist, made individual submissions. Going by the country’s previous experience, this wide array of input from state and organized civil society is rather comprehensive. That the government sought the opinion of the civil society signals the importance of
telecom, broadcasting, and communication issues in general to the national imagination.

When the bill made its second trip to the Parliament, it was swiftly passed in 1996. However, no Board of Directors was constituted until December 2000, one week to the National Democratic Congress (NDC) government’s relinquishing of power after its defeat in the general elections. The outgoing minister of communications, John Mahama, appointed himself chairman of the board and swore other members into office. An Accra (in Ghana) newspaper described the action of the outgoing minister in the following terms: “One of the most bizarre moves by the departing government of the NDC was the last minute appointment it made to the National Communication Authority (NCA). It was a highly suspicious move that was so audacious in its brazenness that, the NDC could only have taken such a decision to cover up some misdeeds.”41 But more worrisome was the fact that the NCA was made to operate for four years without a board of directors and only with an acting director–general. It has been virtually impossible to find out to what extent the NCA’s expected position as an independent regulator was compromised because of the lack of a transparent regime of operations. But given a scenario of an absent board of directors, which is expected to approve decisions of the director–general, and also the absence of a substantive director–general, it stands to reason that the NCA operated more or less as an extension of the Ministry of Communications.

Once the new the New Patriotic Party (NPP) government assumed office, one of its first policy decisions was to reconstitute the board. But the again in a ridiculous turn of events, it appointed the new Minister of Communications as temporary board chairman. The Minister occupied that “temporary” position for more than a year. Various actors in the telecom sector questioned the appointment of a government Minister as board chairman of a supposedly

independent regulatory agency. Samarajiva (2001,2) has observed that in many developing countries, governments are wary of losing control of what they consider to be legitimate government business to newly formed independent regulatory agencies. The situation in Ghana closely resembles the Sri Lankan experience between 1991 and 1996 when, as reported by Samarajiva, government showed little enthusiasm for the independence of the telecom regulatory agency in spite of the well thought out legislation that authorized the body.

Ghana’s NCA act clearly specifies that it is only when there is no board of directors that the director – general reports to the Minister and that the only regular relationship between the ministry of communications and the NCA is an advisory one on matters about policy. No one has taken the step so far to go to court to question the legality of a minister of communications doubling as the NCA board chairman, although a local IT specialist, Dr. Amos Anyimadu remains a consistent critic of the minister’s appointment. In a newspaper interview, he dismissed the minister’s explanation that it is regular practice in countries such as Morocco that the sector minister presides over the board: “He should resign. It is doing a great damage. I have read his explanation very closely …The big question they are going to ask is whether the regulatory organ is independent or not. If you have a minister in the chair, then it’s going to be difficult to say it’s independent.”

Why was the previous government reluctant to set up a board of directors to augment the independence of the NCA and only had to do so when it was leaving office? Why is the new government reluctant to give the regulatory agency the independence it deserves by appointing a separate board chairman? By appointing the minister as the chair of the board of directors, the NPP government undermines the board’s independence and gives itself control over

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who gets a license to broadcast, and who gets to participate in the telecom business. When the idea of setting up NCA was introduced to parliament for the first time in 1994, the then minister of transport and communications, Edward Salia, premised the need for a national regulator on the rhetoric of independence from the state:”Mr. Speaker, “the minister argued, “the National Communications Authority bill has been designed that it will offer transparency in the regulations of telecommunication services as well as in the provision of mass communications. Contrary to popular but uninformed opinion, the National Communications Authority is not supposed to be at the beck and call of any Minister. It is an independent body and for the first time it will be able to administer telecommunications as well as the broadcast sector and give individuals the opportunity even to go to court when they are dissatisfied with the behavior of the National Communications Authority.” If such were the founding ideas behind the setting up of the NCA, why would the state turn around and subvert the very dream of independent and strong regulator?

The lure of controlling broadcasting frequencies is a likely source of attraction for continued control of the NCA for the two governments that the country has experienced since the establishment of this body. During the first round of debates of the NCA bill in parliament, some members called for a new law that would spell out the modalities for the allocation of frequencies. But this was not the road taken. The politicization of NCA and the government’s persistent failure to honor the regulator’s independence would probably have diminished, if the process of frequency allocation were made transparent with a more comprehensive legislation as some MPs even from the side of the ruling government then suggested. My belief is that because the telecom sector remains the most sensitive and arguably the richest sector of the economy, (now that the

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42 The NDC MP for Ejura Sekyedumasi, Hon. Peter Boakye-Ansah was particularly forceful on this. See Parliamentary Debates: Official Report for Monday 12th December 1994, col.1390.
gold mines of Ghana has been completely privatized) the state is reluctant to
give up its control of the industry. The NCA is not an issue one can easily
solicit opinion on at the Ministry of Communications and Technology in Accra,
as my experience there showed. However, as a very senior public servant at the
ministry told me informally, in a telephone conversation from Ghana 20th January,
2009 government believed that the minister’s appointment to the NCA board was
to help strengthen the operations of the regulatory agency. However, I will dwell
on examining and analyzing the basic roles of the NCA in relation to the law
and policy framework of the telecommunication with particular reference on the law
on Access and interconnection and comparing it to that of OFCOM and the E-U legal
regulatory framework on Access and interconnection in order to find out whether
the NCA is really leaving up to expectation or whether there is a gap between the
two and the way forward in order to bridge that gap.

2.6 Organizational Structure
The National Communications Authority of Ghana has four major Divisions
under the leadership of the Director General. The Director General is responsible
for the day to day running of the Authority. He reports to the Board of
Directors of which he is a member. The Director – General is assisted by the
Divisional heads who are Directors. These divisions are:

- Frequency Management
- Regulations And Licensing
- Legal
- Finance and Administration
AN ORGANIGRAM OF THE NATIONAL COMMUNICATIONS AUTHORITY

NCA BOARD

DIRECTOR GENERAL

DEPUTY DIRECTOR GENERAL

DIRECTOR                         DIRECTOR            DIRECTOR                  DIRECTOR
FINANCE & ADMIN.            LEGAL              REG. & LICENSING     FREQ. MAGT.

D.D FIN. & ADMIN       SENIOR MGR-1   SR. MGR-1. MGR-2   SR MGRS-4
SR. MGR., MGR             ASST. MGR-2, OFFICERS-2   ASST- 1
AST. MGR.-4, OFFICERS-2     TRAINEE OFFICERS- 1  OFFICERS-3
TRAINEE OFFICERS-1            TRAINEE - 1
DRIVERS-8
SR. CLERK-1, REC.-2

Source: Charles Nuoriyee (NCA Human Resource Experience,Dec.’05)

Objectives of the NCA

The NCA has set for itself the following objectives to achieve , in the performance of its role:

- To ensure that communications systems operators achieve the highest level of efficiency in the provision of communication services and are responsive to consumer and community needs
- To promote fair competition among persons or organizations engaged in the provision of communication services.

- To promote research into and then development of technologies and uses of new techniques by providers of communication services and to develop adequate human resources in collaboration with such other government department and agencies as the authority considers appropriate.45

2.7 The Major Roles Of NCA In Regulating the Telecom Industry In Ghana.

The NCA has various numerous roles it plays in order to achieve its objectives as mentioned earlier. However, for the purpose of this thesis, concentration is limited to five (5) basic roles of the NCA in regulating the telecom market in Ghana. Broadly speaking, the approach to utility regulation developed in the United Kingdom and elsewhere in the 1980s envisaged a transitional role for regulators in the promotion of competition.46

According to section iv of the Ghana National Telecom policy, regulation of the telecommunications market is an essential component of public policy to ensure effective competition and broad, equitable development, consistent with the goals and objectives set out in the policy. Regulation is the primary responsibility of the National Communications Authority, with guidance from the ministry of communication, and advise from any interested parties including the industry, the private sector, consumers, civil society and the government in its capacity as a user.

2.7.1 Principles of Transparent Regulation

The NCA according to section iv of the Ghana National Telecommunication policy of Ghana shall conduct all of its regulatory functions in a transparent, open, and non-discriminatory manner. NCA shall promote public participation in and awareness of its activities and ensure that the public has adequate access to sector information. NCA’s regulatory proceedings shall be opened to the public and all interested parties, including the Ministry of Communications, regulated operators and consumers shall be allowed to participate in the process, to offer comments and to review evidence and proposed decisions. All decisions shall be arrived at in an impartial, objective manner and the evidentiary and legal basis for these decisions shall be provided at the time the decisions are issued.

Both the ministry through its Annual report, and the NCA are responsible to publish up-to-date industry information based on operator reports an ongoing monitoring activities and make these available for public review.

Among the major roles of the NCA which will be critically examined include the following:

a. Issuing of licenses, (with some reference on their established terms and conditions in the issuance of license)

b. Regulating the industry through the law on Access and interconnection. This is a primary focus of this thesis in that if it is complied with, there is a likelihood that consumers will be well protected, tariffs charges in the industry will be affordable and competition will be enhanced in the industry.

c. Tariff regulation

d. Consumer protection
The above mentioned roles could in turn, be assessed as in the subsequent pages taking into consideration the legal framework of the telecommunication policy in Ghana with particular reference to The Office Of Communication (OFCOM) in the UK as a comparative base\textsuperscript{47}.

2.8 Issuing of License

A license or grant of license means to give permission. In other words license refers to that permission and as well as to the document memorializing that permission. License may be granted by a party ("licensor") to another party ("licensee") as an element of an agreement between those parties. Also in economics, a license is a government-issued permission to engage in an activity or to operate a business\textsuperscript{48}. Section 4 of the Ghana Telecom policy states that in order to encourage maximum participation in the sector, the NCA’s licensing and authorization regime shall be simple, open, non-discriminatory and transparent. The policy continue to state that there will be two types of authorizations to provide telecommunications services and to establish and operate telecommunication networks and these are:

Individual operator licenses for international and domestic facilities-based public telephone networks and services, and for certain dedicated transmission networks providing public signal distribution, such as cable television systems; and Class Licenses or Authorizations for non-facilities based telecommunications services, including domestic and international resale services; and for private networks and facilities dedicated to closer user groups. In general, there shall be no limitations on the number of class licenses and authorizations issued by NCA for services subject to such authorizations. NCA may in certain instances introduce limits if it

\textsuperscript{47} Ghana telecommunication Policy

\textsuperscript{48} http://en.wikipedia.org/wiki/License.
determines consistent with this policy that additional licenses would not be in the public interest, as long as any such limitations are non-discriminatory vis-a-vis current operators in the market. Regarding individual licenses, the NCA shall determine, in consultation with the Ministry, the extent to which the number of licenses may be limited, subject to the provisions of section 2 of the telecom policy. Where use of scarce resources would be required, NCA shall exercise its regulatory authority over the allocation of such resources in connection with the issuance of licenses. The NCA has the responsibility of ensuring that operators that are issued with license to operate comply with the terms and conditions under which they are issued out with the license. On the other hand non-compliance on the part of any operator will therefore mean the issuance of penalties on such operators which include huge fines, non-renewal of license and in some cases revocation of licenses for repeated non-compliance.

However, this role performed by NCA could be used effectively in regulating the industry. For instance it could use it to either restrict or encourage entry into the industry.

2.9 Access and Interconnection Regulation

Competition in the telecom industry is essential to ensuring a well developed sector. The National communication Authority in Ghana has the responsibility of ensuring that it regulates competition in the industry effectively, otherwise it could lead to the collapse of infant operators in the industry. A comprehensive framework for ensuring fair competition is critical to effective market development. This framework consists of all the policies, procedures, rules, regulations and the necessary administrative structure related to the non-discriminatory allocation and administration of scarce resources, licensing, interconnection, equal access, dispute resolution and access to information. The objective is the establishment of fair, transparent, and non-discriminatory competition regulatory treatment throughout the telecommunications market place.

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49 David Gillies & Roger Marshall, Telecommunications Law, 1999
According to the National Telecommunication Policy in Ghana, one way by which NCA could regulate competition is through allowing for interconnection. According to the policy, companies licensed to operate public telecommunications networks and to provide telecommunication services are obligated to provide interconnection for purposes of transmitting traffic between subscribers of different networks\(^{50}\). Moreover, Article 20 paragraph 1 of the NCA ACT 1996 (Act 524) say that subject to the approval of the Authority and subject to such terms as may be agreed upon by the parties, an operator may interconnect his communication systems to the communications systems of another. The NCA shall establish and administer an interconnection regime, which will be non-discriminatory and transparent, and will promote fair and effective competition for all promoters\(^{51}\). Operators may be free to negotiate interconnection agreements among themselves on such terms and conditions as they may choose, so long as such terms are non-discriminatory to other market participants\(^{52}\). The NCA shall facilitate such negotiations, and encourage operators to achievement in a timely manner.

In situations where the parties concerned are unable to reach satisfactory interconnection agreement through negotiations, the NCA intervenes to determine interconnection terms, either through mediation or specific interconnection rulings. The NCA in Ghana also establishes general terms, conditions and methodologies that it will apply in reviewing interconnection proposals, including the basis for determining interconnection charges. Such charges are normally suppose to be cost oriented, and based upon the unbundled costs of network elements required for interconnection.

Moreover, from my research operators with significant market power in given telecommunications market segments are required by law to publish a Reference Interconnection Offer (RIO), indicating all conditions of interconnection to their networks, which will be available to all potential interconnecting operators. This Reference Interconnection Offer must however, be approved by NCA following, following review of its provisions. Other conditions and procedures for ensuring fair interconnection will be provided by NCA through Formal Interconnection Regulations.

\(^{50}\) National Telecommunication Policy of Ghana.

\(^{51}\) Ibid

\(^{52}\) Ibid
It is therefore, imperative to state that the NCA has as one of its role the jurisdiction to resolve disputes among competing operators in all matters, especially those related to negotiation of interconnection arrangements or allegedly anti-competitive practices. All rulings on competitive disputes will be transparent and non-discriminatory, and will be resolved in the shortest time possible. The NCA in performing this role, issues formal Regulations setting forth the procedures and requirements for dispute resolution proceedings.

2.10 Tariff Regulation
The NCA is responsible for regulation of the tariffs of services provided by dominant or monopoly telecommunication operators (i.e. operators with significant market power), where market forces are insufficient to constrain service pricing. The NCA’s tariff regulation practice according to an official of the NCA is aimed at establishing cost-oriented prices for all regulated services. Where current tariffs are significantly out of balance with respect to cost, the NCA promotes and monitors the phased rebalancing of such tariffs subject to considerations of affordability. The NCA by record executes this role such that operators’ tariffs do not lead to anti-competitive cross-subsidy of competitive services by monopoly or dominant operators, or other market distortions that tend to inhibit fair and effective competition in the telecom industry.

Tariffs in market segments where there is, in the NCA’s determination, effective market competition (i.e. no carrier possesses’ significant market power) will be deregulated or subject to forbearance, requiring only informational filings and requirements for adequate customer notice of tariff changes and other consumer protection provisions. The NCA in this regard establishes procedures for determining where tariff deregulation or forbearance is appropriate. In regulating the telecom industry through tariffs, it also ensures that it takes account of the interest of consumers in the industry especially those with lower incomes, in its tariff determinations. In the interests of Universal Access Objective, the NCA according to the telecom policy shall consider such measures including targeted discounts that may
ensure that basic telephone and information services are reasonably affordable to all citizens.

2.11 Consumer Protection
Consumers interest in the telecom industry are sought to be protected in two main ways, and that is through ensuring quality services provided by the telecom operators and also through fraud prevention and privacy protection.

With regards to quality of service the NCA ensures that the telecommunication services of licensed operators are of adequate quality to meet the needs of users and also establish standards and regulations to monitor service quality. Licensed and authorized operators according to Ghana telecom policy will be required to submit periodic reports on their performance according to NCA determined standards, and NCA is empowered to verify these reports through independent investigation. Technical standards to be covered by service quality provisions may include the bandwidth and signal quality of transmission networks; connect failure rates and measures of network congestion; incidence of customer outages and average repair times and such other indicators as the NCA may establish. The NCA also publicize the quality of service performance of operators on a region by region basis and may also establish specific requirements for compensation and recourse where required standards are not met. The Ghana national telecom policy mandates the NCA to establish policies that require operators and service providers respond appropriately to customer complaints and enquiries and provide reasonable and convenient access to customer service representative. Unfortunately, the role of NCA in Ghana is not encouraging as juxtaposed to that of OFCOM which is very phenomenon in this regard.

In terms of fraud prevention and privacy protection, the NCA is responsible for protecting consumers of telecommunication services from unfair and deceptive marketing practices, and from unwarranted use of private customer information. The NCA establishes regulations for monitoring and preventing such behavior, including such penalties for operators who violate these standards as the legislature may authorize. The NCA according to the policy shall establish formal complaint review procedure and shall require all
licensed and authorized telecommunication operators and service providers to establish their own procedures for responding to customer complaint\textsuperscript{53}. Informal interview conducted with some officials in the industry revealed that although they have their own system or procedures of responding to customer complaints, the NCA has not been active enough in monitoring whether the telecom operator procedure in compliance with that established by the NCA supposed to be a standard procedure.

\textsuperscript{53} Ghana National Telecommunication Policy, 2004
CHAPTER THREE

3.0 AN OVERVIEW OF OFCOM AS THE REGULATOR OF THE UK TELECOM INDUSTRY

3.1 INTRODUCTION

Ever since British Telecom was privatized in 1984, there has been a continuous policy debate over how the UK Telecommunications sector should be regulated to adapt to rapidly changing technologies and markets.\(^\text{54}\)

The Office of Communications or as it is more often known, OFCOM, is the independent regulator and competition authority for the communication industries in the United Kingdom. Ofcom was initially established in the enabling device, the office of Communication Act 2002, but received its full authority from Communication Act 2003. On December, 29\(^{\text{th}}\) 2003, Ofcom inherited the duties that had previously been the responsibility of five regulatory bodies namely: The Broadcasting Standards Commission, the independent television commission, the office of telecommunications (OFTEL), the radio authority, and the Radio Communications Agency.

More importantly, OFCOM being the UK communications regulator replaced its predecessor OFTEL to be specific as parts of a governmental shake up of the media and telecommunications regulations at the turn of the millennium. The impetus behind its creation was the increasing convergence of broadcasting and digital communications. Back in December, 2000, the culture secretary Chris Smith decided that corporations such as the BBC, Sky and NTL increasingly had merged interests in digital TV, broadband and e – mail, and one overseeing body was more appropriate for the digital age. Today OFCOM has about 800 staff and an annual budget of approximately 130 million pounds. Its organizational structure resembles that of a company with a CEO responsible for the day to day leadership and a body akin to the board of directors\(^\text{55}\). Comparatively this is the same

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\(^{54}\) Rickard Grasberg, (March, 2008), Head of Telecoms Regulation at The Car phone Warehouse Group.

\(^{55}\) Rickard Grasberg, Head of telecommunication regulation at the car phone warehouse group.
as that of the NCA in Ghana but the difference is that most of the NCA staff in Ghana, I am told are working on part time basis.

Besides, the Minister of Communication in Ghana doubles as the Chairman of the NCA which is completely different from that in the UK. This practice in Ghana does not ensure the full independence of the NCA hence their power to some extent is compromised.

OFCOM as stated earlier is independent of the UK Government but accountable to Parliament through the Communications Act 2003, Ofcom has a number of areas of responsibility. In the broadcasting arena it is charged with protecting audiences from offensive and harmful material, maintaining plurality of provision and ensuring the high quality of and wide appeal of TV and radio programming. It also ensures the optimal use of the airwaves used by a range of spectrum users. In telecom Ofcom works to ensure that there is a wide range of electronic communications services – including high speed data services. Ofcom is largely funded by the companies that it regulates. Ofcom has enjoyed a high profile since its inception. In the recent past it has heavily fined the BBC, GMTV and ITV over phone in scandals, received thousands of complaints over the Big Brother Shilpa Shetty controversy and fined Barclaycard for silent calls.

According to Chief executive Ed Richards, “the interests of citizens and consumers in UK are the heart of everything we do at Ofcom”.

3.2 The UK Communication Act 2003

UK telecommunications operator must operate within the legislative framework set by the communications Act 2003. This Act implemented a set of EU directives from 2002 which sought to modernize and further harmonize communications regulation across the European Union. Considering the telecommunication sector (as distinct from the broadcasting sector which Ofcom also regulates), the Communications Act abolished the need for telecommunication operators to hold a license in order to provide telecommunications network and services (with the exception of spectrum use which still require a license, e.g. mobile operators). Instead, a kind of self certification scheme was introduced whereby operators need to ensure it complies with set of general conditions in

56 Ibid
order to be allowed to do business. There are over 20 general conditions which detail an array of rules, including interconnection standards, number of portability, deployment of telephone numbers, access to emergency services, sales and marketing standards, special service for the disabled, broadband migration codes and so on. Ofcom’s investigation unit monitors compliance and resolves complaints in relation to the general conditions.

3.3 Regulation of Telecom operators in The UK
An important part of Ofcom’s work is to regulate the commercial behavior of dominant telecommunication operators who may have a potentially harmful influence on competition and consumers. The communications Act has borrowed well known concepts from general competition law to allow Ofcom to achieve this objective. Ofcom carries out market reviews of the various economic markets on a regular basis (normally every 3 to 4 years) to establish whether any particular operator is dominant or in the language of the Communications Act has a Significant Market Power (SMP). However, an operator is deemed to have an SMP in a particular economic market if either individually or jointly with others, it enjoys a position equivalent to dominance, that is to say a position of economic strength affording it the power to behave to an appreciable extent independently of competitors, customers and ultimately consumers.

If Ofcom finds out that an operator has SMP, it can impose specific SMP conditions to ensure that the SMP operator does not gain an unfair competitive advantage by virtue of its market influence. SMP conditions may include an obligation to interconnect with other network operators, non discrimination obligation, price controls and so on. However, in fixed telecommunication BT still has SMP in most key economic markets by virtue of being the legacy owner of the largest telecommunications network in the country.

3.4 Strategic Telecommunications Review
In a bid to improve its regulatory work of the telecom sector in the UK, Ofcom in 2005 concluded a major strategic review of the fixed telecommunications sector using its

57 Ibid
58 Ibid
59 Ian Walden & John Angel, Telecommunications Law and Regulation, 2005
separate powers under the Enterprise Act 2002. Among the objectives of the review was to determine whether the sector was suffering from competition problems of such a persistent nature that they could not easily be remedied using Ofcom’s specific market review powers under the communications Acts.\(^{60}\)

The outcome of the strategic review was that BT offered a host of undertakings to Ofcom by which it agreed to set up a separate network access division called Open reach and also to offer its wholesale products on an equivalent basis to both external customers (cable & wireless, car phone warehouse etc...) and its own downstream divisions. The undertakings have brought about a fundamental shift in the way in which BT does business with all its customers.

From a regulatory perspective, the undertakings are unique to the UK and are being actively studied by regulators in other European countries who experience similar competition problems arising from the presence of a large incumbent telecommunications operator. This is however, a good practical example which can be adopted by the NCA in Ghana.

### 3.5 The Competition Appeal Tribunal

Telecommunication operators are able to appeal Ofcom decisions to the Competition Appeal Tribunal who can review both the legal and economic analysis undertaken by Ofcom\(^{61}\). The Tribunal can also overturn decisions if it does not agree with Ofcom’s decisions or reasoning. The Appeal route to the tribunal has proven popular among telecommunication operators in UK seeking a second view. The tribunal by March, 2008 had about 14 appeals against Ofcom decisions pending before it.\(^{62}\)

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\(^{60}\) Grasberg Rickard, Head of Telecom Regulation at the car phone warehouse group

\(^{61}\) Ibid

\(^{62}\) Ibid
### 3.6 How the UK Telecom Industry was regulated prior to the Adoption of the E-U Interconnection Directive

Until the implementation of the Interconnection Directive in the Member States, there was no harmonized access and interconnection policy in the E-U, and each member state took a different approach[^63]. When Mercury communications became licensed in the UK to provide fixed line telephony in competition with British Telecom (BT) in 1981, BT was not required to interconnect with it and in some instances refused to do so, arguing that Mercury customers should install an additional line (with additional telephone) for making and receiving calls from other Mercury customers[^64]. Only with the commencement of the telecommunication Act 1984 was the Director General of telecommunication empowered to mandate interconnection[^65]. It was not long before the DGT was called upon to use these powers, and the first determination setting terms and condition on which BT and Mercury were required to interconnect was made in October 1985[^66]. This included a determination as to the charges which BT could levy, which were calculated on the basis of fully allocated costs, including a return on the capital invested. A number of further BT and Mercury determinations were made in the following years, as well as determination in 1991 for the interconnection arrangements between Mercury and Vodafone and between Mercury and BT Cellnet (the two mobile network operators at the time)[^67]. In 1994, OFTEL now known as OFCOM commenced a major review of interconnection pricing. The review was needed to take account of the growing level in sophistication of the interconnection product needed and a growing requirement on the part of operators to purchase disaggregated interconnection service. In 1996/97 OFTEL required that BT’s interconnection charges be based on the forward looking incremental cost of replacing capital assets, rather than the historic cost of what the assets cost when originally purchased[^68].

[^63]: Ian Walden & John Angel, Telecommunications Law and Regulation, 2005
[^64]: Ibid
[^65]: Section 7 (5) and (6) of the UK telecommunications Act 1984
[^67]: Ibid
[^68]: Ibid
3.7 The Implementation of the Access and Interconnection Directive in the UK

The Interconnection Directive was implemented in the UK through the telecommunications (interconnection) Regulations 1997, SI 1997/2931 (interconnection Regulations) and through amendments to operators’ telecommunications license in accordance with the Licensing Directive.69

3.7.1 Determination of Operators with Significant Market Power (SMP) and Request for Access

Oftel determined that Kingston Communications and BT had SMP in the provision of fixed networks and services and leased line, and that cell net and Vodafone had SMP in the market for mobile networks and services. These operators were therefore required to meet all reasonable requests for access to their network. BT and Kingston Communication were also required to publish a reference interconnection offer and to provide access services at cost-orientated prices.70

3.8 The E-U Access and framework Directive

The Access Directive defines ‘Access’ as: …the making available of facilities and service to another undertaking, under defined conditions, on either an exclusive or non-exclusive basis, for the purpose of providing electronic communication services. It covers inter alia: access to network elements and associated facilities, which may involve the connection of equipment, by fixed or non-fixed means, access to the physical infrastructure including buildings, ducts and masts; access to relevant software systems including operational support systems, access to number translation or systems offering equivalent functionality, access to fixed and mobile networks in particular for roaming, access to conditional access systems for digital television service; access to virtual network services.71 It is clear that the commission has sought to define access very broadly, catching not only network access but access to physical infrastructure such as ducts and masts, and

69 Directive 97/13/EC on a common framework for general authorizations and individual license in the field of telecommunications services; OJL117/15, 7 May 1997 (the Licensing Directive)
70 Ibid
to related facilities such as software. The inclusion of ‘virtual network services’ in the definition also seems to imply that access obligations can be imposed on those who do not own the underlying network, but have other rights to use it. Interconnection on the other hand is defined in the Access Directive as: …the physical and logical linking of public communications networks used by the same or a different undertaking in order to allow the users of one undertaking to communicate with the users of the same or another undertaking, or to access services provided by another undertaking. Services may be provided by the parties involved or other parties who have access to the network. Interconnection is a specific type of access implemented between public network operators.(Article 2(b) )

There is therefore no doubt that interconnection is then considered to be a category of access under the European regulatory regime.

3.8.1 Overview of the Access conditions under the Access Directive

The Access Directive envisages that Member states will have the power to impose several different types of access obligations. These obligations can be summarized as follows:

A. Member states must impose a general obligation on all providers of public electronic communications network to ‘negotiate interconnection’ with other such providers on request.

B. National regulatory authorities may impose additional obligations on operators designated as having SMP on a specific market, requiring that they meet reasonable requests for access to, and use of, specific network elements and associated facilities.

C. National regulatory authorities are to encourage and, where appropriate, ensure adequate access and interconnection and interoperability of services in a way that promotes efficiency, sustainable competition, and gives maximum benefits to end users.

D. National regulatory authorities must impose specific access obligations in relation to conditional access services.

72 The Interconnection Directive
3.9 Brief Comparison between Ofcom and NCA of Ghana

One area of observation has to do with the composition or organizational structure of the two national regulatory bodies. The two has board of directors and a chief executive that sees to the day to day running of the body. However, the NCA board of directors is chaired by the Ministry of communication but this is not so with Ofcom which has a chairman independent of the government. This makes Ofcom independent and more effective than the NCA.

Ofcom is a full time body as juxtaposed with that of NCA which is run on a part time basis and therefore makes it practically difficult for NCA to realize its full potential or objective of effectively regulating the telecom sector. Ofcom oversees both the broadcasting sector and the telecommunication sector whilst the NCA is restricted to overseeing only the telecom sector. The broadcasting sector is the sole responsibility of the National Media Commission which a separate body. This implies that Ofcom has a greater responsibility than the NCA.

In the UK there is a special competitive Appeal tribunal where telecom operators can appeal any decision affecting them, but this is not the case with the Ghanaian telecom operators. This makes it practically difficult for the operators in the industry since they will have to resort to the normal courts where it takes a long time for cases to be disposed of due to the huge back log of cases.

The Access and interconnection Directive has had a significant impact on the UK telecom industry as the major operators are now allowing access of their physical infrastructure And interconnection of their networks to new entrants in the industry. This in effect encourages a healthy competition in the industry. This is however, a major problem in Ghana as the big operators find it very difficult to allow access and interconnection of their physical infrastructure and network.
In Ghana interconnection charges are cost oriented and based upon the unbundled costs of network elements required for interconnection where as interconnection charges in the UK is based on the forward looking incremental cost of replacing capital assets. This therefore encourages the big operators in the industry to grant access and interconnection.
CHAPTER FOUR

4.0 FINDINGS, RECOMMENDATIONS AND CONCLUSION

The Act establishing the NCA gave it wide range of powers to address the concerns of regulating and managing the sector. Section 41 (1) of the NCA Act 524, granted it the authority to make regulations among others in relation to rules and guidelines on tariffs, the international Accounting System, terms and conditions for interconnectivity, technical standards in the provision of the telecom service and general regulations for the sector. However, consideration of the activities of the Authority and the developments in the sector points to a fact that the NCA in Ghana is grappling with the thorny problem of putting critical structures in place to regulate and manage the sector efficiently.

Regulations are very important in controlling, providing frameworks for operation and ensuring the protection of the interests of both operators and consumers. The research reveals that the NCA has not or is not yet able to provide comprehensive regulations for the sector during its first three years in operation. The absence of regulations has weakened the hold of the NCA on the telecom operators and this has not provided a conducive environment in which all operators may effectively perform. Ironically, it has provided a means of leverage for the operators to pursue what they think are in their best interests. The trade war between the cellular mobile telephone operators and Ghana Telecom (until March, 2009 when it was sold to Vodafone, UK) and the uncompromising resistance of the latter to increase interconnection capacity of the former are typical examples.

Given the lack of regulations in the sector, the NCA could apply the reliefs provided in the Act. Section 21 (1) provided the NCA with the Authority to withdraw or suspend the license of any operator who fails to comply with the conditions of his license. However, the question that readily comes to mind is, does the NCA have the moral right or as it were the courage to suspend or withdraw the license of Ghana Telecoms? It is practically impossible as the company controls over 90% of the market. On the other it is evident that Ofcom has
the power to suspend the license of Vodafone or any British Telecom if it practically violates or goes contrary to the terms of license.

In the absence of regulations and modalities for interconnectivity, the NCA has been drawing on the experiences of other countries particularly from Ofcom in the UK and the International Telecommunication Union (ITU) to guide negotiations between operators.

The research also revealed that the fundamental problem facing the NCA is lack of experience in managing the sector as compared to Ofcom with a wide array of specialist and experienced gurus in the helm of affairs. The NCA was established comparatively only recently (1997) and still requires time to build up its capacity to address the problems and challenges facing the sector. For example it has yet to acquire the full complement of staff with the requisite skill and expertise to run on full time basis.

Another revelation has to do with the issue of interconnection. Interconnectivity between competing telecom operators has been the bane of the global restructuring of the telecom sector. The inherent interdependent of the network and the inherited overwhelmingly entrenched position of the established operator make interconnection negotiation a difficult process. This has characterized all interconnection negotiations because the new entrants have nothing to offer except the threat of taking a portion of the market of the former monopoly. As can be predicted (and based on experiences in UK and elsewhere), interconnection negotiations in Ghana have been difficult. This has happened on two fronts: first between Ghana Telecom and Westel on one side, and also between Ghana Telecom and the cellular mobile operators on the other. Interconnection difficulties delayed the commencement of operations by the latter company. Central to the problem of stalled interconnectivity negotiations between Ghana Telecom and Westel was the issue of the ratio for revenue sharing from incoming international calls. After the initial bickering, the NCA was able to

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mediate an interconnectivity agreement between the two companies. Some of the agreed terms are as follows:

- Local calls: 50% - 50% for both operators;
- Trunk calls: 30% (the network that carries the call for the long the distance) - 70% (the network where the call terminates);
- International: in-coming calls 20% (the network where the call terminates) – 80% (gateway where the call was routed).

With interconnection between Ghana telecom and the cellular mobile operators, the problem has been one of increased capacity for the cellular mobile operators to expand their service. The latter have accused the former of being reluctant to increase their interconnection capacity to facilitate their expansion programmes. Interestingly, the most affected cellular mobile operator is spacefon now taking over by MTN the very company Ghana Telecom is engaged in negotiation over GSM frequency.

Clearly, the problem of interconnection has affected telecoms development in the country. It has practically limited the capacity of the other operators to expand their service. Political inclinations have probably contributed to stalling the negotiation process. It is apparent that almost all the operators have strong bases in the political system of the country and therefore cannot easily be lent upon by the regulatory authority. This effectively undermines the independence and authority of the NCA in resolving conflicts. For example, it took ministerial intervention to resolve interconnection conflicts between Ghana Telecom and Westel and it is becoming obvious in the case between Ghana Telecom and Spacefon (currently taking over by MTN).

Also it is worth noting that wide penetration and service quality are important overall system goals of telecom policies. In order to achieve these goals, tariffs must be set such that actual and potential subscribers can afford service at the same time enabling the operators to cover their costs and accumulate sufficient funds for future expansion. However, in this regard The NCA has not been influential in the introduction of an
innovative tariffs system in the telecom sector. The introduction of competition into the national network, though quite recent, has not affected the level of tariffs in the sector either. In a competitive or liberalized market, operators should be sensitive to the level of tariffs they charge so as not to loose market share. However, there have been no moves by the operators in the telecom industry to grant concessions in tariffs to attract more subscribers. Instead, Ghana Telecom has indicated its intention to revise its tariffs upwards. The company argues that it was made to keep to what it calls ‘subverted tariffs’ fixed by the government in 1995 when it was a public organization. Now Ghana telecom is suggesting that there is the need to increase tariffs to take care of inflation. However, the hidden truth is that Ghana telecom’s market position is not yet threatened by its opponents which is still developing it network. Thus, it has little competitive incentive to reduce prices. In the case of the cellular mobile operators, there appears to be some form of trade cartel in operation. Since the commencement of operations by the companies in the telecom sector, their standard call charges have remained the same. For instance, the standard call charge of Tigo Company which was formerly known as mobitel remained at 0.5 US Dollars for peak periods 0.4 US Dollars for off peak periods since 1993. The same applies to spacefon and Celltel Company. In effect there is no competitive tariff system in the sub sector, as every operator feels secured with the existing level of tariff charged. However, it is therefore evident that there are policy tariffs which seeks to ensure that level of tariffs are reduced on weekends and some occasions.

4.1 Summary of Recommendations
From the above discussion and analysis, it is therefore worth noting that, for the NCA in Ghana to chart its way successfully in regulating the telecom sector it should learn from the experiences of Ofcom in the UK.

The biggest step to ensuring effective regulation, in my humble opinion, would seem to be a clear and necessary review and amendment of the National Telecommunications Policy in the first place.

The NCA should revise its policy in order to ensure that operators in the telecom sector improve upon their quality of service. Unlike Ofcom the NCA must recruit people who
have the requisite skills and expertise to run the authority on a full time basis. Besides the various telecommunication Acts enacted by parliament to govern the sector must empower the authority such that all operators in the sector regardless of their status will succumb to their authority.

What has also emerged from my discussion of regulative issues is the lack of distinction between the executive branch of government and the NCA (where as in the UK Ofcom is completely distinct and independent from the government). For the president to take a unilateral decision on an issue that is being resolved by the purportedly independent NCA does not augur well for the development of the national regulator as a strong policing agency at the periphery of the global digital economy. Writing from the experience of being a former head of Sri Lanka’s Telecom Regulatory Commission, as well as being a veteran theorist in international communication, Rohan Samarajiva (2001) notes that the relationship between the state and regulatory agencies worldwide, with the probable exception of the Nordic countries have not been without problems of interference. He notes that President Bush’s replacing William Kennard as FCC chairman shortly after coming into office in January, 2001 demonstrates that “independence has subtle nuances, even in the country that invented the concept.”

Nonetheless, independence is fundamental to the realization of the objectives for which the new regulators in developing countries were put in place. In countries where good governance is yet to be developed as a culture of the state, the national regulator needs distance and insulation from the state’s whims. Samarajiva argues that “a firewall to keep out the virus of bad governance” is needed in such countries in such because bad governance has its own logic, which ultimately undermines the independence and legitimacy of the regulator. One of the most important elements of effective regulation is legitimacy beyond mere legality. This type of legitimacy is achieved when various

constituents of the telecom sector accepts the authority of the regulator in matters of arbitration and even opinion. When such legitimacy is lacking, telecom operators are likely to challenge the authority of regulators by appealing to the executive as in the Westel (now Zain) example or through litigation to the judiciary. Oftentimes, when the regulator’s legitimacy is lacking corruption finds it way in, through the back door.

4.2 Conclusion
The discussion so far as shown that there has been a tremendous and a positive growth in the telecom sector in the country, which is a direct result of the liberalization of the sector. Liberalization has facilitated telecoms penetration (such as MTN, Zain, Vodafone and many others which are in the offing to enter the sector) and has given the subscribers the ability to choose between operators. However, certain actions such evaluation of the capacity of Ghana Telecoms to take care of added volumes were disregarded and this has undoubtedly affected the quality of service. Lack of a strong regulatory agency has contributed, inter alia, to problems in interconnection negotiations. One clear implication is that the NCA will have to be strengthened to enable the effective development of firmer regulatory oversight. At present it manifests many of the problems of it contemporaries elsewhere. Lacking a full complement of regulatory staff, it is vulnerable to the actions of politically supported incumbents and new entrants. Ghana’s liberalization and privatization experiment is still running its course. As elsewhere even with OFCOM in the UK, the future presents a picture of continuing and unfinished business.

However, I strongly believe that a model suitable and similar to that of, the Ofcom model could be a good legal regulatory framework for Ghana.

Also, effective implementation and enforcement of rules which are equivalent to the “Access and interconnection Directive” and suitable in Ghana (which even led to the transformation of OFTEL to OFCOM in the UK) will lead to effective competition, affordable tariffs and above all ensure that consumers in the industry are well protected.
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Text

1.1.1 First subsection

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