

**ASSESSING THE OPERATIONAL PERFORMANCE OF  
VODAFONE GHANA COMPANY LIMITED IN THE GHANAIAN  
TELECOMMUNICATION INDUSTRY**

**By**

**KNUST**

**ADAMS ABUDU GONI, B.Sc. Admin (Accounting option)**

**PG 2019408**

**Thesis submitted to the of Institute of Distance Learning, Kwame  
Nkrumah University of Science and Technology in partial fulfillment of  
the requirements for the degree of**

**COMMONWEALTH EXECUTIVE MASTER OF BUSINESS  
ADMINISTRATION (CEMBA)**

**JULY 2011**

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## DECLARATION

I hereby declare that this submission is my own work towards the Commonwealth Executive Master in Business Administration and that, to the best of my knowledge, it contains no material previously published by another person nor material which has been accepted for the award of any other degree of the University, except where due acknowledgement has been made in the text.

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Professor I. K. Dontwi

(Dean, Institute of Distance Learning)

Signature

Date

## **DEDICATION**

To my lovely wife Firdaus Ibrahim and my children Majeed Adams Goni, Yazeed Adams Goni and Waleeya Adams Goni.

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## ACKNOWLEDGEMENTS

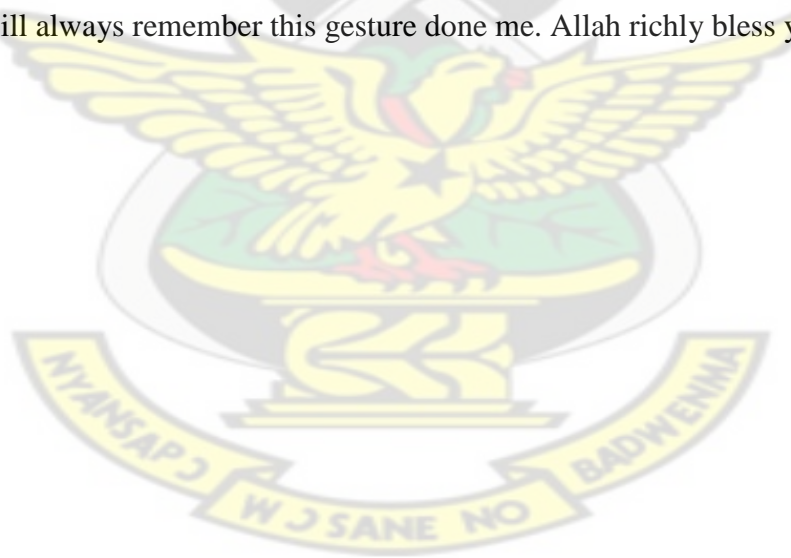
My greatest and sincere gratitude goes to Allah for the strength, wisdom and ability bestowed on me to go through this exercise peacefully and successfully.

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## ABSTRACT

The telecommunication industry over the last decades have proven not only as an emerging economic sector but a rapidly growing sector with an immense chain of impacts towards the revolution of the social and economic structures of Ghana. This has brought in its wake the introduction of several telecommunication companies competing for the available markets in the local economy. Such competitions have equally presented myriad of challenges which have affected the corporate performance of the various telecommunication industries. This study therefore sought to assess the operational performance of Vodafone with respect to the regulatory frameworks, the extent of service coverage and market share, the resource base and technical capacity, customers' assessment of products and services, operational challenges and administrative response to such challenges. In doing this, a case study of Vodafone's branches in Accra and Kumasi was used in capturing all the major players of Vodafone Company including the management staff, customers and the vendors/retailers of sim cards and recharge vouchers. The study used the purposive and accidental sampling in the conduct of the study. Findings from the study revealed that, Vodafone's offices in both Accra and Kumasi are equipped with adequate human and logistical resources in handling the operations of the company. Again, Vodafone's share of mobile phone users in Accra and Kumasi for the 2009 to 2010 period increased by 29.6 percent and 34.7 percent respectively. Network coverage has improved by the increase in the number of cell sites from 180 in 1996 to 600 cell sites as at 2010 for Accra whilst that of Kumasi has also increased from 50 cell sites to 230 currently. Vodafone's products sale in Accra and Kumasi has been increasing at a decreasing average rate of 7.6 percent.

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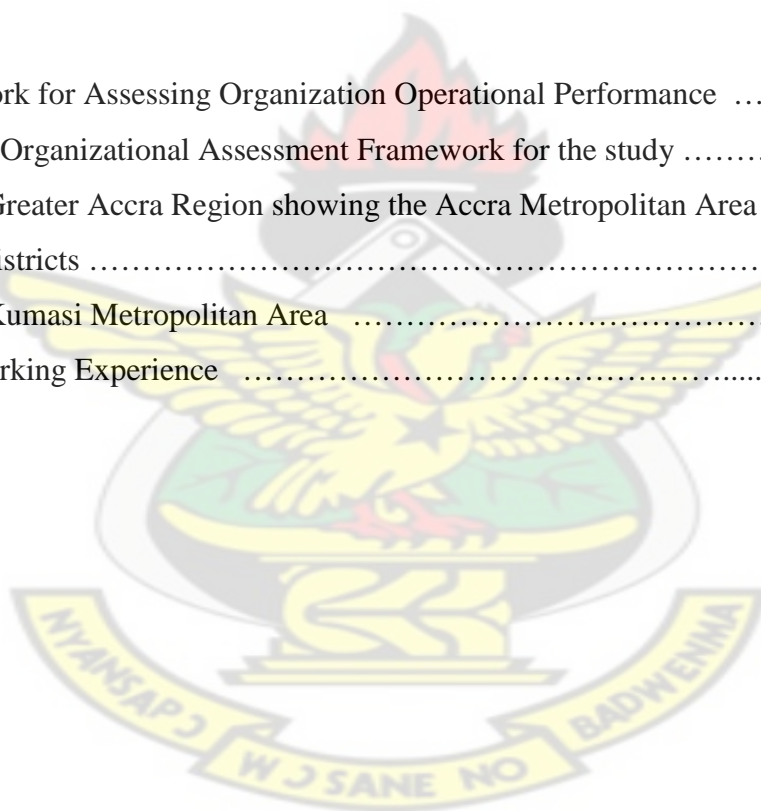
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## LIST OF ABBREVIATIONS

ADP	-	Accelerated Development Programme (ADP)
CPA	-	Consumer Protection Agency
GES	-	Ghana Education Service's
ICT	-	Information and Communication Technologies
IDRC	-	International Development Research Centre
ITU	-	International Telecommunications Union
MoC	-	Ministry of Communications
NCA	-	National Communications Authority
NCS	-	Network Computer Systems
NTP	-	National Telecommunication Policy
P & T	-	Post and Telecommunication
SMS	-	Short Message Sending

## **CHAPTER ONE**

### **INTRODUCTION**

#### **1.1 Background of the study**

The sense that the world is in the middle of a continuing telecommunication revolution has been strong since the 1960s when the television became one of the widely used media of communication. This period in history marked the realization that the world was becoming a global village (Salami and Usman, 2008).

The evolution and growth of the telecommunications industry over the past four decades has been responsible for the tremendous changes in the technology of human communication. Information and communication technologies currently pervade every facet of human existence; from community radios in almost all parts of the globe, to cellular phones in the hands of women and men in every community on earth, to computers in almost every medium to large organization (Melhem and Tandon, 2009).

The telecommunication industry has brought new opportunities for both knowledge sharing and knowledge gathering by all for different purposes. Advancement in telecommunication provides unlimited opportunities for socio-economic development and social engagement through new innovative thinking and tools. Thus, telecommunication services are utilised in various circles of human endeavour from business, academics, multi-national co-operations among others, with far reaching impacts and benefits.

Ghana's telecommunication landscape was revolutionalised following the deregulation of the sector in 1994 by government in the bid to attract investments and improve competition

within the communication sector. This led to the proliferation of a number of private sector cellular network service providers in the country. The Ghana Government, during this period initiated and implemented a five year Accelerated Development Programme (ADP) with the objectives to ensure sustained improvement in the availability, reliability and quality of communication service and expand employment opportunities in the sector. Additionally, the programme sought to improve public access to telecom services in rural and urban area and to ensure that telecom tariffs are affordable, competitive and confer economic returns on telecom operators (Osiakwan, 2003)

Currently, the telecommunication industry in Ghana is private sector dominated with five major operators namely; MTN, Tigo, Vodafone, Airtel and Expresso with other companies such as Glo still making strides to hit the market. The competitive nature of the industry today, presents implications for telecommunication companies as far as corporate performance is concerned. Excellent corporate performance is not only a prerequisite for continued operation in the industry but also, a necessary condition for a particular company to assume a competitive edge, dominate or capture a significant share of the total market.

Against the background of issues presented and discussed above, this research seeks to assess the performance of Vodafone Ghana in terms of innovation on the part of management to develop competitive strategies that are responsive to the current market and to address effectively, the current challenges of the company in meeting the satisfaction of its customers.



## **1.2 Problem Statement**

Competition in Ghana's telecommunication industry has called for telecommunication firms to improve their corporate performance not only in terms of the teledensity (the number of subscribers out of every 100 people ), which also is a measure of their market share, but also to be more concerned with the quality of their service delivery.

The Ghanaian telecommunication players however, have come under criticism for a number of reasons. Concerns have been raised about the seemingly unregulated services provided by telecommunication companies and the poor nature of service delivery in the country. Critics have also questioned over subscription to telecommunication services without expansion of the capacity of service providers, high charge rates and the problem of poor interconnectivity among networks.

The gravity of the problem was accentuated in October 2007 when the National Communications Authority (NCA) ordered two of Ghana's most popular mobile telephony network operators, MTN and Onetouch ( now Vodafone Ghana) to halt the activation of new access lines until the networks of the two operators were appropriately dimensioned to take on additional capacity.

The complains of consumers were also articulated in May 2010 when the Consumer Protection Agency (CPA), an advocacy group in Ghana, called for all cell phone users in the country to switch off their phones for six hours in protest against "poor services" by the cell phone operators. This action was intended to highlight the level of frustration consumers are going through in the use of their cell phones.



Cognisance of the above, questions need to be answered as far as Vodafone Ghana's operational performance in Ghana's telecommunication industry is concerned. Thus, this study seeks to find answers to the following questions.

### **1.3 Research Objectives**

The overarching objective of the research was to assess the performance of Vodafone in Ghana. In essence the study sought to achieve the following specific objectives.

- To examine the regulatory frameworks for the Telecommunication industry in Ghana
- To identify the human and logistical capacity, extent of service coverage and the market share of Vodafone Ghana;
- To assess Vodafone's products and services in meeting the satisfaction of customers.
- To identify the quality assurance measures that are in place to ensure responsive service delivery to its customers; and
- To determine the operational challenges and propose measures for policy considerations in augmenting Vodafone's performance in the nation's telecommunication industry.

### **1.4 Research Questions**

- What are the regulatory frameworks for the telecommunication industry in Ghana?
- What is the resource capacity, network coverage and market share of Vodafone Ghana?
- How do the customers of the company assess the products and services offered on the Ghanaian market?

- What quality assurance measures are in place to ensure responsive service delivery to its customers?
- What operational challenges are encountered and the measures to be put in place to enhance the performance of Vodafone in the telecommunication industry in Ghana?

### **1.5 Justification of the Study**

The study brings to bear, a balanced discussion on the actual performance of Vodafone Ghana delivery from the viewpoints of the major stakeholders in Ghana's telecommunication industry. This will help to develop responsive approaches by way of policy-measures by the government to address the concerns of customers and service providers.

In addition to the existing telecommunication policy and regulatory frameworks, the study seeks to provide the platform to developing comprehensive performance indicators/benchmarks that will ensure that quality service delivery becomes the hallmark of Vodafone Ghana Company. This will ultimately help to protect consumers from exploitation and allow them to achieve value for the monies spent on telecommunication services.

Again, this research recognizes that the private sector must play a major role to achieve the policy objectives of Ghana as far access to telecommunication services and the contribution of the industry to the country's development agenda are concerned. It is therefore a contribution to help realize government's policy objective of ensuring that every citizen and resident of the country obtains high quality and affordable access to information and communication service and to harness the potential benefits of integrating and growing the

wealth of indigenous social and technical knowledge to inform and sustain the socio-economic development of the country (NCA, 2003)

To the management of Vodafone Ghana, the study provides the unique opportunity of presenting from empirical evidence the actual performance of the company since its inception in Ghana. It particularly, identifies the challenges of the company, exposes its weaknesses and how these affects the quality of service delivery and consumer satisfaction. Management can therefore, based on these and together with the company's strength and opportunities develop responsive measures that can well position Vodafone to assume competitive advantage in Ghana's telecommunication industry and to provide satisfactory services to its customers.

Finally, the study is a contribution to the wide range of literature and scholarly works in the field of studies and research as far as telecommunication is concerned. It therefore provides the framework and sets the stage for further empirical studies to be conducted into the telecommunication industry in Ghana.

### **1.6 Scope of the study**

In terms of scope, the study focused on Vodafone Ghana as it happens to be the oldest and one of the giant telecommunication companies that receives patronage from a significant percentage of subscribers in Ghana's telecommunication market.

Geographically, the Accra and Kumasi Metropolitan areas were considered as the research scope. In these two major cities, the study focused on the management staff of Vodafone

Ghana Company, retailers (Care for you Centres) and distributors as well as a cross-section of subscribers.

### **1.7 Limitations of the Study**

The major challenges that were encountered in undertaking this research works include;

The case study as a research design had its limitation of difficulty in using its findings for generalisation since only a part cannot be used to represent the whole. In this case, the performance of Vodafone in Accra and Kumasi could not be used to generalise the performance of the company in the entire nation. To reduce this limitation however, literature works were widely consulted to make references to issues being discussed which are of relevance to the other areas of the country where the company is operating.

The accidental sampling technique used in interviewing the subscribers required lots of time in order not to interview subscribers twice. To reduce the time, during the personal interviews, subscribers interviewed were marked with an indelible ink on any of their fingernails. With the telephone interviews, the telephone numbers of the subscribers interviewed were crossed-out. The interviewer also inquired from every subscriber as to whether he or she had already been interviewed.

Difficulty in the collection of primary data from relevant institutions. This challenge was the result of the seemingly reluctance of staff and management to provide information relevant to the study. This was taken care of by taking a letter from the school authorities that served as evidence that this study was just for academic purpose. Thus, the information given was treated with utmost confidentiality.

## **1.8 Organization of the Study**

The study has been organized into five chapters. Chapter one of the study, focuses on the key issues and challenges of the telecommunication industry in Ghana. In essence, the chapter presents a background to the study, statement of the problem that has necessitated. The chapter also presents justification of the study, the research questions and objectives, research scope and limitations of the study.

Chapter two of the research contains a review of relevant related literature that provided the theoretical framework and backbone for empirical studies. The chapter therefore, presents and discusses relevant terms and pertinent issues on the development trends of Ghana's telecommunication industry, the regulatory and policy framework for the telecommunication industry in Ghana and a brief profile of Vodafone Ghana Company. The chapter also discusses issues bordering on organisation performance assessment to contribute to achieving the overall objectives of the study.

The research methodology has been discussed in chapter three of the report. The chapter discusses the research approach, sampling procedure and techniques uses as well as the data collection and sources for the research. It also explains the techniques for data analysis and presentation of the research findings. The chapter four presents on a brief profile of the study areas.

In the fifth chapter of this report, analyses of field data collected for the purpose of this research has been presented. It analyses the field data to make meaningful deductions that

also contributes to answering the research questions and meeting the objectives of the research.

Finally, the sixth and final chapter of the research report presents a summary of the major findings of the research as well as recommendations based on the findings. It also contains the concluding section of the study.

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## **CHAPTER TWO**

### **LITERATURE REVIEW**

#### **2.1 Introduction**

This chapter reviews literature on relevant issues to provide a theoretical background for the research. The review presents and discusses issues on Ghana's Telecommunication industry. In essence, issues concerning the evolution and growth of the country's telecommunication industry and the policy and regulatory frameworks for the industry have been presented and discussed. Other issues that have been captured in this chapter include information on the major players in the telecommunication industry with emphasis on Vodafone Ghana as well as a review of frameworks for assessing organizational performance.

#### **2.2 The Telecommunication Industry**

##### **2.2.1 Telecommunication Defined**

Telecommunication refers to the specific services that support the exchange of information over significant distances by electronic means. It includes the activities of providing telecommunications and related service activities (i.e. transmitting voice, data, text, sound and video). The transmission facilities that carry out these activities may be based on a single technology or a combination of technologies (International Telecommunication Union, 2010).

The term telecommunications was first used for wired telephony. Today, telecommunications are one of the most important of the contemporary ICTs. They include wired and wireless telephony; different mobile services, such as cellular telephones and paging; voice and data transmission; and Integrated Services Digital Networks (ISDN), which provide a very high quality of voice as well as high data communication rates.

### **2.2.2 Overview of the Global Telecommunications Industry**

The Telecommunication industry has gone through some significant and revolutionary changes in the past two decades the world over. The industry used to be regarded as a natural monopoly before 1980s. In telecommunications industry this was mainly due to the exceptionally large infrastructure requirements of delivering the telephone services right into households. The monopolistic nature of the industry also meant that the provider could charge excessive prices and gain monopoly profits. Therefore, the need for price regulation also became apparent. It thus became commonplace, all over the world, to have a monopoly company owned by the state for providing telecommunication services (Bandaranayake, 2005).

Due to the problems in state owned enterprises, an essential need was seen to reform them. A combination of restructuring, privatization and establishing regulatory mechanisms were adopted in reforming these public enterprises (Kessides, 2004). The restructuring started in US in 1980s where the monopolist AT&T was dismantled into a number of smaller companies. Competition was introduced into long distance communications and then to local communications. Further, companies were allowed to operate in both broadcast and communications markets simultaneously. The next country to follow was UK with the opening up of their market which was the monopoly of British Telecom. Many countries in the European Union thereafter followed suit (Bressie et al, 2005).

Globally, the Telecommunication industry has become a vital revenue generation sector. For instance, at the end of 2008, worldwide mobile service revenues stood at USD 912.1 billion; outperforming the respective revenues generated by the pharmaceutical, IT hardware and semi-conductor sectors. While software and services generated more revenue than mobile



services, mobile surpassed this sector in terms of year-on-year growth, and was the only industry of the aforementioned five to register double digit growth (of 17.4 percent) in terms of overall revenue between 2007 and 2008. It is estimated that by the end of 2008, worldwide mobile subscribers will total 4.6 billion (International Telecommunication Union, 2010).

## **2.3 Historical Development and Structure of Ghana's Telecommunication Industry**

### **2.3.1 History of the Industry**

Allotey and Felix (2000), trace the history of telecommunication in Ghana to the pre-colonial period when the first telegraph line in Ghana, (then 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. In 1882, the first public telegraph line, stretching over a distance of 2.5 miles, was erected between Christianborg and Accra. The extension of telegraph services to the middle and northern parts of Ghana into the territory of the Ashantis was carried out in 1886. 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.

Ghana's telecommunication infrastructure was laid down and expanded by the colonial administration mainly to facilitate the economic, social, and political administration of the colony. Before the beginning of World War I in 1914, 170 telephone subscribers had been served in Ghana. 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. In 1953, the first automatic telephone exchange with 200 lines was installed in Accra to replace the manual one erected 63 years earlier. 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.

The attainment of independence by Ghana in 1957 brought new dynamism to the country's telecommunications development as a second new automatic exchange in Accra in 1957. By the end of 1963, over 16,000 telephone subscribers and 32,000 rotary-type telephones were in use in Ghana. The management of Ghana's telecommunication institutions was also transferred from Public Works Department to the post office following the enactment of the Post Office Ordinance in 1886 and later to the Post and Telecommunications Department until the early 1970s.

Satellite communication was not an integral part of the Ghanaian communications system until the early 1980s. The construction of a satellite earth station at Kuntunase in the Eastern region of Ghana in 1981, and related communication reforms of the early 1990s marked a dramatic shift towards greater use of satellite communications technology over the next two decades (Boateng, 2000).

According to Osiakwan (2003), Ghana was one of the African countries who in the late 1990's were in the forefront of the liberalisation of the telecommunications sector to attract investments and improve competition within the communication sector. The communications sector was deregulated in 1994 when the government initiated the implementation of the Accelerated Development Programme (ADP) -- a five year programme for the restructuring of the communication industry. The ADP Programme ended in 2000 with the following achievements: teledensity increasing from 0.34 lines for 1000 inhabitants in 1994 to 1.16 lines in 2000; public phones per 1000 inhabitants increasing from 0.001 in 1994 to 0.16 in

2000; creation of the National Communications Authority (NCA) in 1996; liberalization of the communication sector; and the partial privatization of Ghana Telecom with Government maintaining 70% share. These were achieved primarily through the entrance of new telecommunication companies following the deregulation and privatization of the sector.

### **2.3.2 Structure of the Telecommunication Market in Ghana**

The main elements of the current and emerging market structure of the telecommunication industry in Ghana as contained in the National Telecommunication Policy can be captured under five major market segments.

#### *International Telecommunication Segment*

The international market segment of Ghana consists of telecommunication facilities and services which carry communications signals across the country's international borders. These include licensed gateway operators with official authorisation to maintain physical gateway connections to internal destinations. There are two such licensed gateway operators namely, Ghana Telecom (now Vodafone Ghana) and Westel. Others in this segment include SAT-3 access, Private licensed VSAT systems and unlicensed international bypass services. The latter refer to unauthorised service providers utilising new technologies to connect international voice calls to the local public network, bypassing the gateway facilities and charges of licensed international operators.

#### *Domestic Public Telephone Services*

This segment of Ghana's telecommunication market includes all facilities and services that connect to telephone calls between users within Ghana. This segment consists of fixed wireless networks, wireless mobile networks and Public telephone and tele-centers.

### *Dedicated Transmission Network*

The dedicated transmission network segment of the countries telecommunication market includes all forms of point-point transmission networks which connect to two or more dedicated locations. These are used to provide wholesale capacity for use by other public network operators, for private, closed-user-group communication services or for public signal distribution.

### *Internet Services*

This category consists of services that link end users to the internet and its various applications such as e-mail and web. Internet services do not by themselves involve installation of physical telecommunication networks but typically rely on use of other existing networks, through either dial-up or dedicated connections.

### *Broadcasting Systems*

Operators under this segment of the market include public radio and television stations; operated by publicly-owned statutory bodies, commercial radio and television stations and community radio and television stations.

A number of telecom value added providers have emerged with the liberalisation of the telecommunication sector. Notable among them are the Mobile Phone Operators most of which were licensed before the establishment of the NCA. Millicom Ghana Limited began its operations in 1992/93 with Mobitel as its network name. Celltel started its operation in 1995 with a network name “Celltel” which was later changed to “Kasapa”. Scancom also entered the market in the same year using a network name “Spacefon”. In 2001, Ghana Telecom introduced its mobile phone services under a network name “One Touch”, now Vodafone.

The three larger operators are now, MTN, TIGO and Vodafone, accounting for about 95 per cent concentration ratio (Ahortor, 2003).

Aside the mobile phone providers, there are internet and public data providers of which Network Computer Systems (NCS), Africa Online, Internet Ghana Ltd and Ghana classifieds are the leading companies among 46 internet services providers that are licensed to operate. They have a combined subscriber base of about 150,000. Other value added providers are the public pagers that include City Pagers, American Telecom Systems, Punch Communications Ltd and Page One Communications Ltd (ISSER, 2003).

Data from the National Communications Authority ending August 2008, indicated that out of a total of 10,242,916 mobile phone subscribers in the country, MTN has 5,539,065, representing 52 per cent of the market; TiGO following half way with 2,668,316 subscribers; followed by GT/Vodafone with 1,648,544 subscribers; whiles Kasapa trails far behind with about 386,991 subscribers (Dowuona, 2009).

## **2.4 Policy and Regulatory Frameworks for the Telecommunication Industry in Ghana**

### **2.4.1 National Telecommunication Policy**

Following widespread liberalisation in basic telecommunication services in 1994, the government of Ghana, ten years later in 2004, formulated a comprehensive national communication policy with the vision of building upon developments that have been facilitated by the former in the telecommunication sector. The purpose is to define the



framework within which Ghana's Telecommunication sector will evolve towards its set vision. Specific objectives that the policy aims to promote include:

- Universal access for all communities and population groups in Ghana to telephone, internet and multimedia services by 2010;
- National penetration of universal telecommunication service to reach 25% of the population, including 10% in rural areas by 2010;
- Connection of all schools, medical clinics, Government offices and public and community broadcasting stations to advanced telecommunication services;
- Fully open private and competitive market for all telecommunication services;
- Streamlined, efficient and effective regulation of the telecommunication industry on a fully transparent, technologically neutral and competitively balanced basis;
- Affordable prices for telecommunication services particularly for low income citizens;
- Profitable investment opportunities for businesses in all segment of the market; and
- Ghana shall be seen as a first-class hub for international telecommunication and information industry investment, jobs and development and a leader in the transformation of Africa towards full participation in the information society.

The achievement of these policy goals and objective depends on the performance of the private sector since Ghana's telecommunication industry is dominated by private telecom service providing companies.

#### **2.4.2 Ministry of Communications**

The Ministry is primarily responsible for the definition and elaboration of Government policy regarding telecommunications. In this regard, the Ministry is charged with the responsibility

to periodically review the effectiveness and success of the present policy on telecommunication and consider amendments and updates as appropriate.

Again, the Ministry has the responsibility to participate in a consultative capacity in all National Communications Authority public regulatory proceedings in an open and transparent manner. It is the mandate of the Ministry of Communication to monitor development of the telecommunication sector, and progress toward achieving the objectives of the national policy and to represent the Government of the Republic of Ghana in all international negotiations and proceedings relating to the country's telecommunication policies.

#### **2.4.3 The National Communication Authority**

As the telecommunication sector in Ghana underwent privatization and liberalization, there was the need to assign the regulatory roles to an independent body that will oversee the development of the sector. Consequently, the National Communications Authority Act (Act 524) was promulgated in 1996 for the establishment of the NCA.

Ghana's regulator, the NCA, has operated for years with scanty financial resources and no management board. Spectrum management has been messy; mobile operators were allowed to offer services using "authorizations" rather than formal licenses with clearly defined service obligations (Guy, 2002).

The NCA according to the National Communication Policy have the primary responsibility of regulating the telecommunication sector and implementing the terms of the National Transportation policy among the roles of the Authority as contained in the National Transportation Policy are:

- Issuing of licences, establishing terms and conditions;
- Regulation of competition including interconnection;
- Allocation of scarce resources including management of the frequency spectrum;
- Implementation of Universal Access Policy;
- Tariff regulation consistent with Ministry Policy;
- Consumer protection;
- Technical standards, quality of service oversight; and
- Monitoring of operators activity, performance and compliance.

#### **2.4.4 Post and Telecommunication Engineering Training School**

Programs for training manpower for the telecommunication industry in Ghana began in 1948 when the then Post and Telecommunication Department established the Telecommunication Engineering School. This school is charged with the responsibility of training linesmen and technicians to operate and maintain telecommunication equipment and plants. The School also caters for the needs of other institutions such as civil aviation, broadcasting, the police, and the military (Allotey and Felix, 2000).

#### **2.4.5 Involvement of the University of Science and Technology**

In addition to the Post and Telecommunication Engineering Training School, the Department of Electrical Engineering in the Kwame Nkrumah University of Science and Technology (KNUST), Kumasi, Ghana, also offers courses to students in telecommunications.

In June 1992, a collaboration agreement was signed between Ghana's Post and Telecommunication and the Department of Electrical Engineering, KNUST. The objectives of the accord included:



- Involving the University's Department of Electrical Engineering in the analysis of technical problems encountered by the Post and Telecommunication;
- Gaining the reciprocal assistance of Post and Telecommunication in solving problems encountered at the University's Department of Electrical Engineering (in the form of support for laboratory facilities, equipment, and research and development in the field of telecommunications);
- Assessing the University's engineering training programs to improve their relevance to in-the-field job requirements;
- Assigning engineering students to the Post and Telecommunication during vacation periods, providing sabbatical programs at the Post and Telecommunication for University lecturers, and providing continuing education programs at the University for Post and Telecommunication technical staff.

The collaboration agreement was expected to benefit not only the Ghana Post and Telecommunication in fulfilling their need for high-calibre manpower, but also to provide the University lecturers with adequate interaction with the Ghana telecommunications industry; thus helping the Ghana Post and Telecommunication solve their problems, while saving the country foreign exchange funds used for foreign expatriate consultants.

## **2.5 Assessing Organizational Performance of Corporate Entities**

### **2.5.1 Performance Defined**

Performance has been seen as getting the job done or producing the result for a set aim or objective. In a broader sense, it refers to the accomplishments of an agency, program, or employee relative to stated goals and objectives. It involves the translation of a company's

mission and strategy into a comprehensive set of proven targets and goals through strategic leadership by management.

The overall performance of an organization therefore is dependent on management's ability to meet its stated goals with an acceptable outlay of resources while ensuring sustainability over the long term. Good performance therefore means getting the work done effectively and efficiently.

### **2.5.2 Indicators for Assessing Organisational Performance**

Performance indicators are used in any performance assessment approach. A performance indicator or key performance indicator (KPI) is a measure of performance. Such measures are commonly used to help an organization define and evaluate how successful it is, typically in terms of making progress towards its long-term organizational goals.

Performance indicators are therefore measures that focus on the achievement of outcomes critical to the current and future success of an organisation. These indicators should deal with matters that are linked to the organization's mission and vision, and are quantified and influenced where possible.

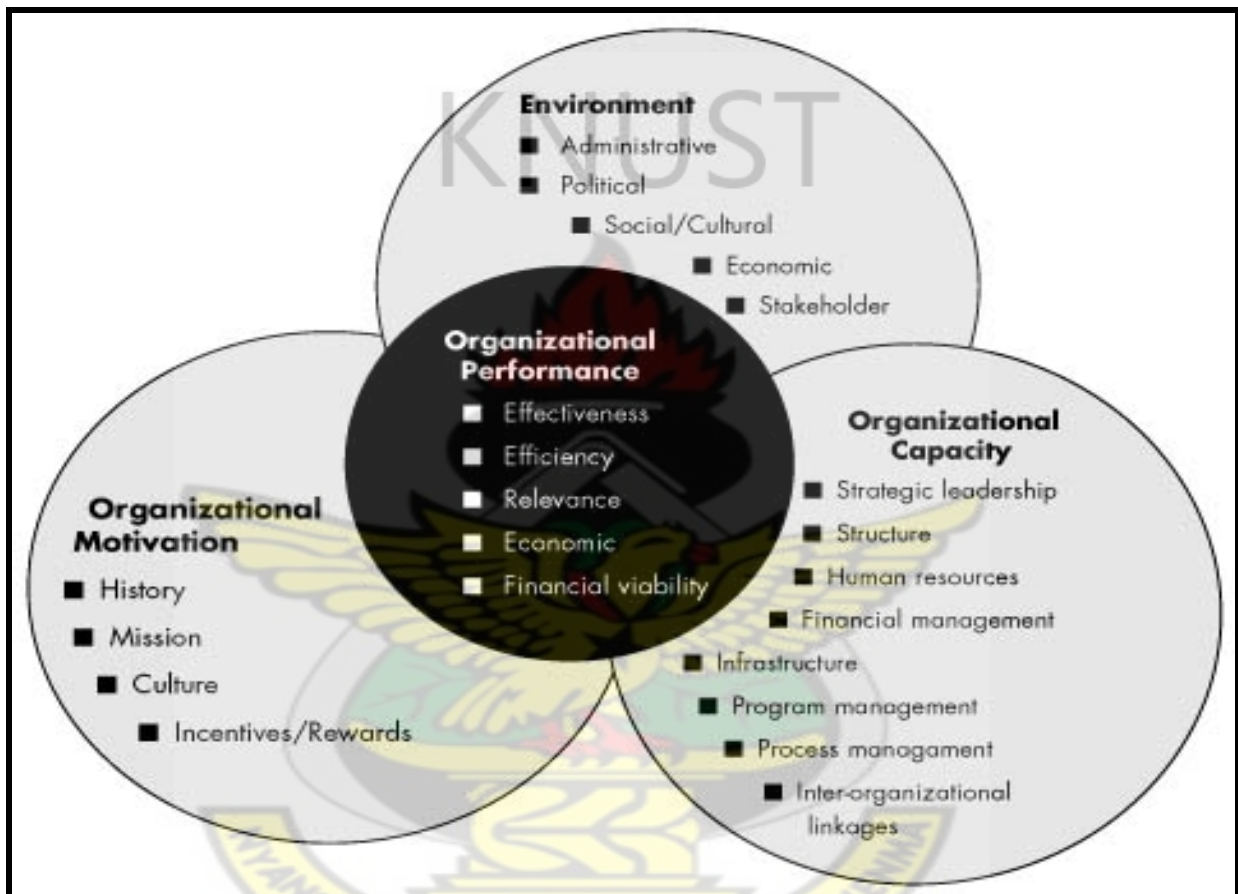
With respect to the telecommunication companies, such operational performance indicators should involve but not limited to; human and logistical capacity, satisfaction and among others.

### **2.6 Framework for Assessing Organisation Operational Performance**

As shown in Figure 2.1, there are three broad areas that intersect in determining the performance of an organisation. These areas which include the organisation's environment, motivation and capacity intersect to bring about the fourth area which is the organisation's

performance (Lee and Feick, 2001). All these areas have indicators for their determination. This study therefore considers the fourth area which considers the organisation's performance.

Figure 2.1: Framework for Assessing Organisation Operational Performance



Source: Adopted from Lee and Feick (2001).

The performance of an organisation, particularly those that render utility services to consumers in most instances are narrowly measured using quantitative indicators such as the total market share of the firm and a qualitative measure of the its ability to provide satisfactory services to consumer or client. Performance assessment criteria of this nature obviously, is silent on the various factors that actually work together to influence good

performance or otherwise of the firm. Figure 1 illustrates the framework for assessing an organisation's operational performance.

As shown in Figure 1, the operational performance of an organisation is affected in terms of its effectiveness, efficiency in going about activities targeted at achieving stated goals and objectives, relevance of activities to all stakeholders as well as economic and financial viability of the firm. These dimensions of organisation operation performance have been discussed subsequently.

### **2.6.1 Effectiveness**

Critical issues that need to be considered as far effectiveness of the organisation of the firm is concerned include; Effectiveness of major programs ( e.g. major achievements, levels of increase of literacy, miles of new roads, percent of girls obtaining education, new employment, level of research productivity, level of community health—areas directly linked to organization's mission and function); Effectiveness in meeting client expectations (internal and external clients served, quality of services/products); Effectiveness in meeting functional responsibilities e.g., education (coverage, student achievement) and Effectiveness in providing useful services (delivery of services to clients/beneficiaries, research community, technology transfer)

The International Development Research Centre (IDRC) suggests that number of clients served, the quality of services or products as well as growth indicators such as the coverage are some of the indicators to be considered in assessing an organization's operational performance based on effectiveness

### **2.6.2 Efficiency**

Performance is increasingly judged by the efficiency of the organization. Organizations must be able not only to provide exceptional services but also to provide them within an appropriate cost structure. Variables include but are not limited to; Cost of products and services—benchmarked comparisons, if possible; and Cost of providing internal managerial services—benchmarked comparisons.

### **2.6.3 Relevance**

This refers to the organizations' ability to adapt to changing contexts and capacities and keeps to its mission, goals, programs, and activities agreeable to its key stakeholders and constituents to ensure continued operation. Critical issues of concern here as far as the firms performance are concerned include; program revisions, adaptation of mission, and meeting stakeholders need.

### **2.6.4 Financial Viability**

The financial viability generally refers to the revenue generation capacity of the organisation. This when measured with its expenditure patterns provides a useful insight as to the surplus or deficit recorded as the company operates.

## **2.7 Adopted Framework for Assessing the Operational Performance of Vodafone**

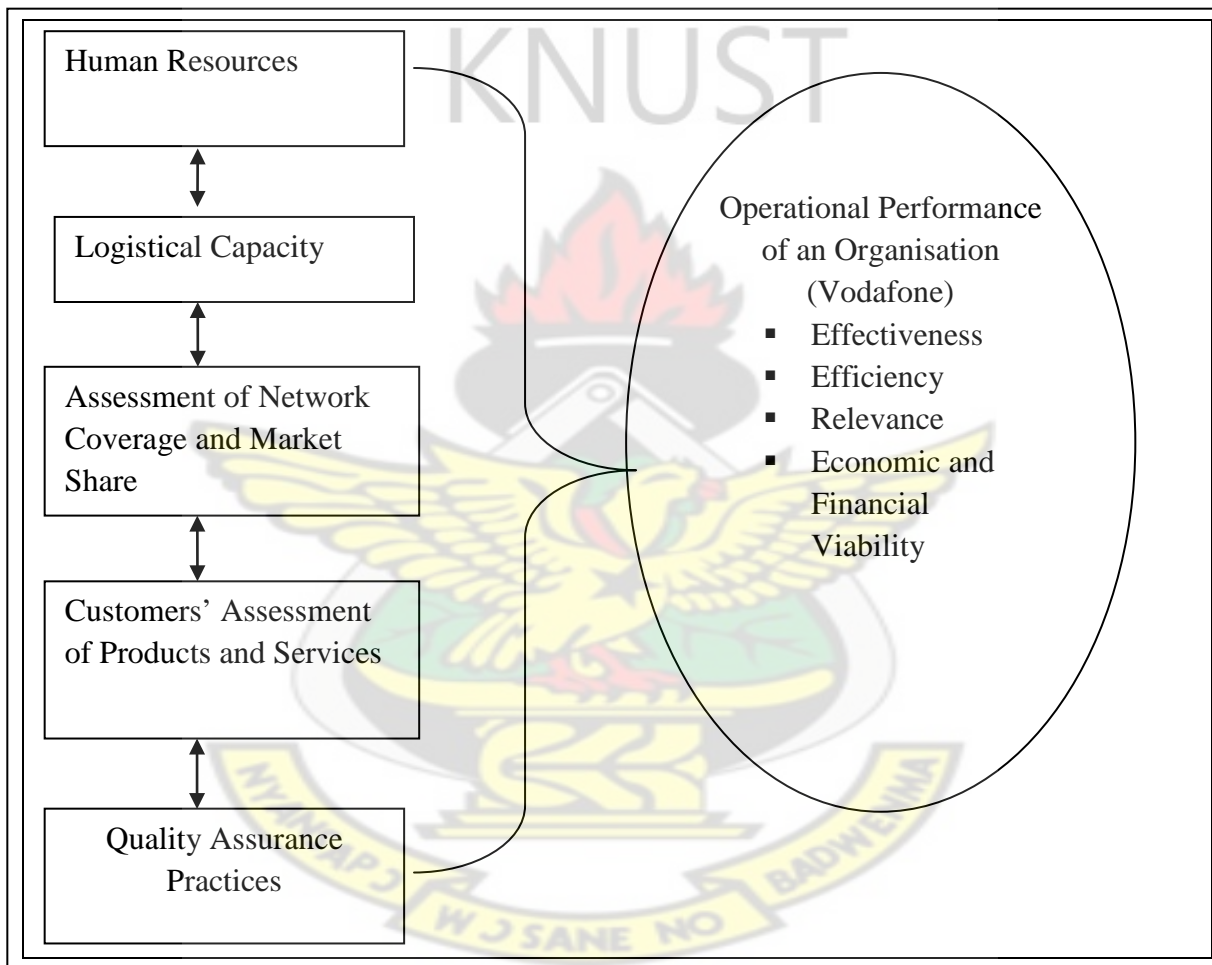
### **Ghana**

The literature reviewed informs the conceptual framework as presented in Figure 2 that, the operational performance of an organisation is determined by how effective, efficient, relevant as well as the economic and financial viability of the organisation. Applying this to the study, the operational performance of Vodafone can therefore be assessed based on the above



specified determinants by considering; the human resources, logistical capacity, network coverage and market share, customers' assessment of products and services as well as the quality assurance practices of Vodafone. This was the framework on which the analysis in the chapter five of this report was done.

Figure 2.2: Adopted Organisational Assessment Framework for the study



Source: Author's Construct, 2011

## **CHAPTER THREE**

### **METHODOLOGY**

#### **3.1 Introduction**

This chapter focuses on the approach adopted for the study which describes the method and techniques that were adopted to collect data for the analysis of field data. As a result, the research design, data requirement and sources, sampling frame and techniques, the data collection tools and techniques, the data analysis and presentation methods have been discussed.

According to Yin, 2003, a research methodology defines what the activity of research is, how to proceed, how to measure progress, and what constitutes success. Kumeckpor (2002) also defines it as the methods, procedures and techniques used in an attempt to discover what we want to know.

#### **3.2 Research Design**

According to Emory (1985), a research design represents a plan, structure, and strategy of investigation conceived so as to obtain answers to research questions and to control variance. In order to achieve the primary objective of the study, which is to assess the operational performance of Vodafone Company in Ghana, the case study approach was employed for the study. Hence, Accra and Kumasi Metropolitan areas were selected as the areas for the study.

A case study approach therefore, is a comprehensive enquiry into part of a subject with similar attributes to the entire subject under study to obtain an understanding of the whole subject. Case studies are frequently regarded as using both quantitative and qualitative

research and a combination of both approaches (Bryman, 2004). It was adopted more so because of the similar operational environment and style of Vodafone's operation in these two metropolitan areas. The advantages of using a case study approach include: obtaining a deeper understanding of the issue being studied irrespective of how complex the issue is; revealing the inter-relationships which exist between groups, policy measures, processes and other factors which the study may focus on and its adaptability to various research objectives. In particular it enables a quick understanding of complex issues, therefore providing foundation for further studies into subjects, using other research designs. A case study is also known for its flexibility – being adaptable to various study objectives.

On the other hand case studies lack representativeness. It is therefore argued that what happened in one case cannot be claimed to be typical of all cases, thus making it difficult to generalize the result of a case study. To minimize this limitation, literature works were consulted and references were made to them where applicable in making sure that the findings of this study had a wider perspective.

### **3.3 Research Processes**

This subsection discusses the different steps and approaches adopted in the conduct of the research. The discussion consequently includes major setbacks encountered at each stage and how they were overcome.



### **3.3.1 Problem Definition**

The statement of the problem formed the beginning of this research as in the case of many. This involved mainly identifying a suitable topic that is of importance to the development of Ghana and would be accepted by the Institute of Distance Learning of Kwame Nkrumah University of Science and Technology. This was a major challenge since the telecommunication industry has a number of important subjects worth studying. However, some of the factors that informed the final choice of subject included the need for originality, the availability of literature, willingness of major players in the study area to provide information and time and other resources available.

The choice of a particular subject in the telecommunication industry was a difficult task taking into consideration the wide range of issues worth discussing in the industry. The researcher finally settled on the operational performance of Vodafone Company with Kumasi and Accra metropolitan areas as its case study areas. This was followed by a proposal which was later submitted to the Institute for approval. A major challenge in writing the proposal was the identification of the main problem and clearly defining to provide the main focus and direction of the study. Given that almost every subject has different faces presenting numerous problems. In spite of the diverse issues, the researcher's focus was kept on the subject matter, which is the operational performance of these companies.

Other factors which were considered in the putting together this research were resource availability taking into consideration the limited period within which the work was to be done. These factors therefore became major considerations in defining the problem and scope of the research as well as the objectives to be achieved in the research.

### **3.3.2 Design of Field Survey Instruments**

Vodafone Company in Ghana has extended its services to almost all parts of the country. With the aim of obtaining an understanding of how the company has performed one hand and given the limited time available the research was designed to be a case study of the two biggest regional capitals in the country.

Considering the number of stakeholders in Vodafone Company, three major units of analyses were identified. These were the customers of Vodafone Ghana, management/ staff of the company and the retailers/vendors of the company. Questionnaires were designed and used to collect data from management/staff of the company and vendors. Interviews were also used to gather information from customers of Vodafone Ghana. The questionnaires included both open ended and closed ended questionnaires while the interviews were both personal and telephone interviews.

### **3.3.3 Data Analysis and Reporting**

Findings of the research were reported using a combination of varied approaches and techniques. Qualitative analyses were done of each main theme and supported with statistical presentation of actual results of responses in frequency tables and graphs. The major findings are also summarized in line with objectives of the study and recommendations made.

## **3.4 Data Categories and Sources**

The study made an extensive use of both primary and secondary sources of information from the management staff of Vodafone, customers and retailers/vendors of the company. The primary sources of data included information that was gathered from the field. The

secondary sources of data included Vodafone Ghana Limited annual reports and brochures. Data on the profile and operations of the Vodafone Ghana, resource base of the company, technological advancement as well as operational challenges and administrative responses of the company were gathered from management and staff of Vodafone Ghana. In addition, customers were asked questions bothering on the quality of service provided by Vodafone Ghana, types of products and services provided. The vendors provided data centered on the sale of Vodafone's products. Table 3.1 presents on the summary of data requirements and sources.

Table 3.1: Categories of Data Collected and their Sources

SOURCES OF DATA	DATA CATEGORIES
Brochures and Annual Reports of Vodafone	Profile of Vodafone Ghana
Management Staff	Operations and administrative procedures, Human and logistic capacity of the company Market share of the company Operational challenges and administrative response.
Customers	Assessment of Vodafone's services and products in the areas of: Network availability and stability; Charges of products and services; and Customer Care Services
Vendors	Assessment of the Sale of Vodafone's Products

Source: Author's construct, 2011.

### 3.5 Sampling Technique

The sampling technique adopted and employed for the study was the purposive and accidental sampling. The purposive sampling was also used to select the two study areas

(Accra and Kumasi Metropolis) with relatively high population sizes in the country for the assessment of the company's operational performance in Ghana. This method was also used in selecting the management staff and vendors to be interviewed.

Reports from the Marketing Department of the company indicated that as at the time of the survey, a total of 3 million customers were indentified to be residing in these two study areas. A total of 100 customers were accidentally sampled over a three month period for interview with 50 customers interviewed per each area. The accidental sampling method was used since the location of these customers was unknown. Hence, the customers who visited the “care for you” centers in these areas were sampled for the interviewed

Table 3.2 Summary of Interviewees

<b>STAKEHOLDERS</b>	<b>LOCATION</b>	<b>SAMPLE SIZE</b>
Customers	Accra	50
	Kumasi	50
Management Staff	Accra	25
	Kumasi	25
Vendors	Accra	25
	Kumasi	25
<b>Total</b>		<b>200</b>

Source: Author's own construct, 2011

### 3.6 Data Collection Methods

It can be inferred from the Table 3.3 that the major data collection instruments used were questionnaires and interview guides. Questionnaires were used in instances where a respondent could easily read and understand without assistance, whiles interviews were conducted for respondents whose response required follow-ups and did not have the time to go through the questionnaires and provide the needed responses.

Table 3.3: Data Collection Tools

Unit of Enquiry	Data Collection Methods/Tools Used
Customers of Vodafone Ghana	Interviews
Management Staff of Vodafone	Questionnaires
Vendors	Questionnaires

Source: Author's Construct, 2011

### 3.7 Data Analysis

The raw data obtained from a research is useless unless it is transformed into information for the purpose of decision making (Emery and Couper, 2003). The data analysis involved developing summaries, applying statistical inferences as well as the use of tables and charts to make meaning out of the raw data. Consequently, the following steps were taken to analyze the data for the study. The data was edited to detect and correct, possible errors and omissions that are likely to occur, to ensure consistency across respondents.

The data was then coded; to enable the respondents to be grouped into limited number of categories. The Statistical Package for Service Solutions (SPSS) software was used for this analysis. Data was presented in tabular form, graphical and narrative forms.

### 3.8 PROFILE OF THE STUDY AREAS

This section succinctly discusses the profile of Accra and Kumasi as the profile areas for this study. It presents on the geophysical, demographic and economic characteristics of the study areas. Notably, the economic characteristics briefly considers the telecommunication industry



in these two study areas by identifying the existence or otherwise of mobile phone network operators and internet service providers in the study area.

### **3.9 Profile of Accra Metropolitan Area**

#### **3.9.1 Geophysical Characteristics**

The Accra Metropolitan Area (AMA) has a total land size of 200 square kilometres and is made up of six sub metros namely Okaikoi, Ashiedu Keteke, Ayawaso, Kpeshie, Osu Klotey and Ablekuma. The Southern boundary of the Metropolis of Accra is the Gulf of Guinea from Gbegbegese to the Mukwe Lagoon near Regional Maritime Academy. The boundary continues along the Maritime Road to join the Accra-Tema road to Nungua Police Station Barrier. It turns right to the Ashaiman Municipal road till the Railway overhead Bridge on the Motorway and continues to Mile Post 91/2. From here the boundary continues to the road between the Institute of Professional Studies (IPS) and the Accra Teachers Training College (ATRACO), westwards crossing the Accra-Aburi Road to the University of Ghana behind the great Hall to Kisiseman and Christian Village to join the Accra Nsawam Road at the Achimota Brewery Road Junction. Figure 4.1 shows the map of Greater Accra Region showing the Accra Metropolitan Area (AMA) and the other districts.

It turns left for 500m to the Aayeayeeffee Street junction and through the Aayeayeeffee Street to the Bridge over the Achimota Stream, then turns right along the stream to the high tension lines to the Achwilage Street and through Achwilage Street to the range of the Awoshie Hills and turns left again along the hills to the boundary between Kokroko and Awoshie (Ga South Municipal), from here it turns left along the swampy area and crossing the motorway through

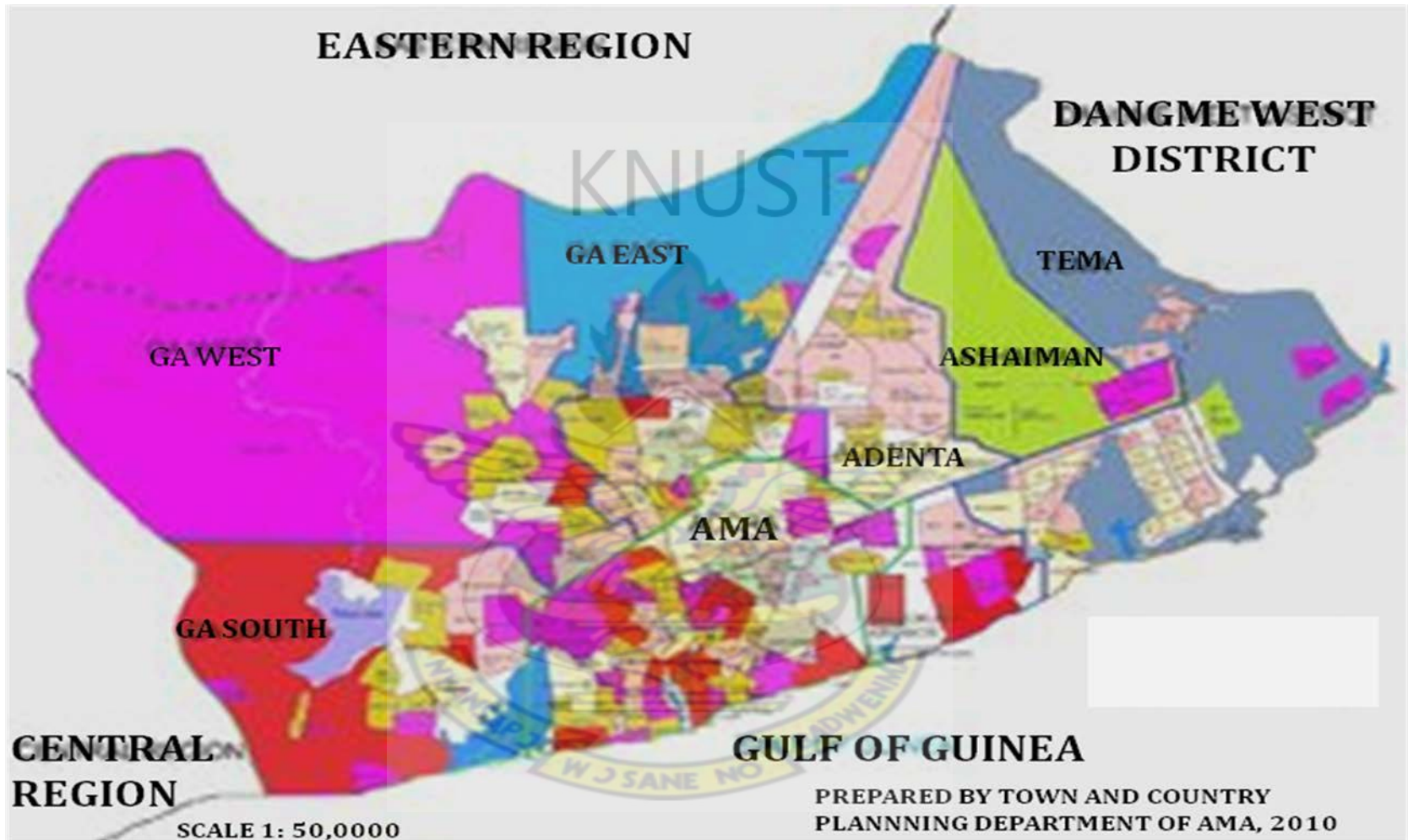


the swampy area to the bridge on the Sakumono Stream on the Accra-Winneba road and stretching along the stream till the starting point at Gbegbeyese.

# KNUST



Figure 3.1: Map of Greater Accra Region showing the Accra Metropolitan Area and other Districts



### **3.9.2 Demographic Characteristics**

Accra is one of the most populous cities in Ghana because as seat of the national capital, people from almost all parts of the country continuously move to settle there. It is contended that migration alone contributes to about thirty-five (35 percent) of population increase in Accra. With 'an estimated population of about 3,963,264 as of 2011, Accra, Ghana's capital since 1877, is today one of the most populated and fast growing Metropolis of Africa with an annual growth rate of 4.3 percent.

### **3.9.3 Economic Characteristics**

The economically active population of AMA is estimated to be 823,327. However, the daily influx of people from dormitory towns makes the figure higher than estimated. It is worthwhile to state that the estimated figure of all the economically active population who dwell within the Metropolis excludes the workers of both formal and informal sectors who commute daily to engage in various economic activities.

Accra is a major centre for manufacturing, marketing, finance, insurance, transportation and tourism. It has about 350 major industrial establishments, a Central Bank, 9 Commercial Banks (with 81 Branches), 4 Development Banks (with 19 Branches), 4 Merchant Banks (with 7 Branches), 3 Discount Houses, 1 Home Finance Mortgage Bank, Building Societies, a Stock exchange, 218 Foreign Exchange Bureaux, 9 Finance Houses, 9 Insurance Companies, 12 Insurance Brokerage Firms, 2 Savings and Loans Companies and a host of Real Estate Developers.

All the mobile phone network operators (MTN, Tigo, Vodafone, Expresso, Airtel) operate in this area and have their national headquarters situated in this area. There are also internet

service operators such as Ucom, Iburst Africa among others in addition to the mobile phone network operators that are responsible for internet service provision in Accra.

### **3.10 Profile of Kumasi Metropolitan Area**

#### **3.10.1 Geophysical Characteristics**

Kumasi Metropolitan Area (KMA) is located in the transitional forest zone and is about 270km north of the national capital, Accra. It is between latitude  $6.35^{\circ} - 6.40^{\circ}$  and longitude  $1.30^{\circ} - 1.35^{\circ}$ , an elevation which ranges between 250 – 300 meters above sea level with an area of about 254 square kilometers. The unique centrality of the city as a traversing point from all parts of the country makes it a special place for many to migrate to. Figure 3.1 shows the map of KMA.

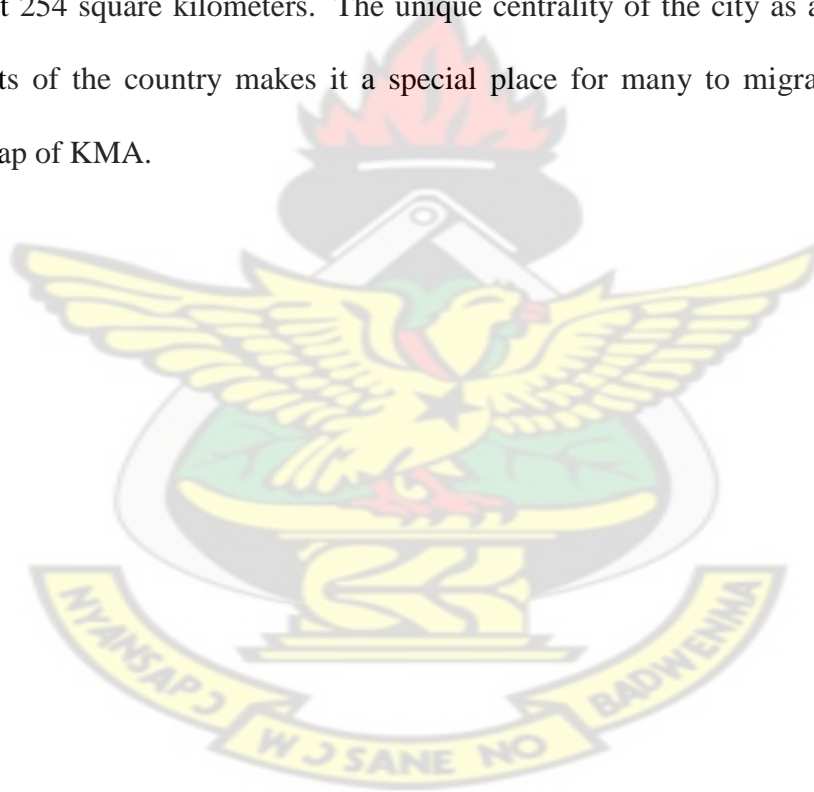
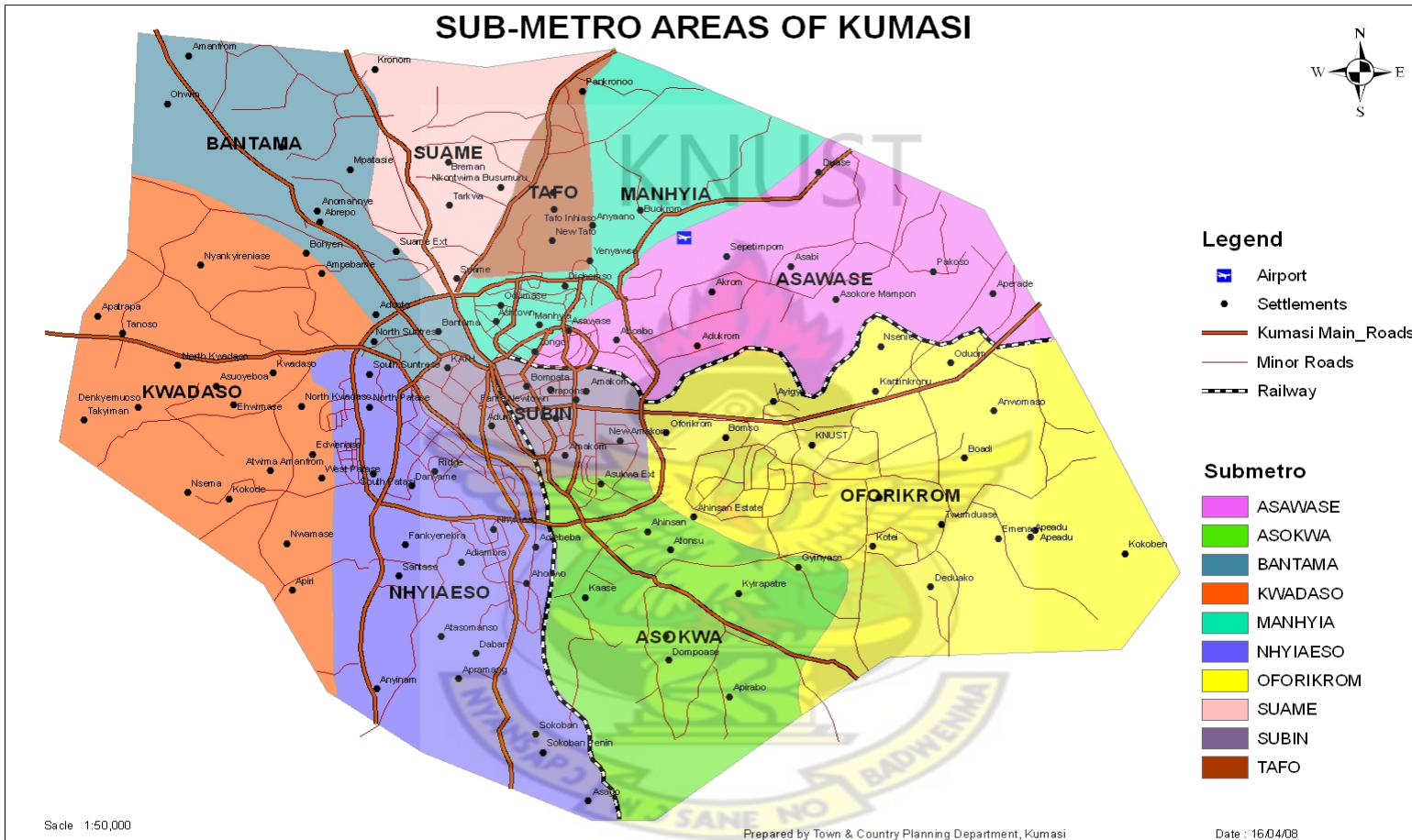


Figure 3.2 Map of Kumasi Metropolitan Area



Source: Adopted from Kumasi Metropolitan Assembly, 2010.



### **3.10.1 Demographic Characteristics**

The 2000 Population Census kept the population at 1,170,270. With a growth rate of 5.47 percent it is however projected to 1,889,934 by 2011. Ashanti Region is currently the second most urbanised in the country, after Greater Accra (87.7 percent). The large urban population in the region is mainly due to the fact that the Kumasi metropolis is not only entirely urban but accounts for a third of the region's population. The growth of industries and the large volume of commercial activity in and around Kumasi as well as the high migrant number may account partly for the relatively high urban population. It has been estimated to have a daytime population of about 2 million. The population has grown rapidly over the inter-censal periods from 346,336 in 1970, 487,504 in 1984 to 1,170,270 in 2000.

### **3.10.2 Economic Characteristics**

The major sectors of the economy fall under commerce/services which accounts for about 71 percent, Manufacturing/Industry which takes up of 24 percent and the Primary Production sector which takes only 5percent. The primary production sector of the metropolis is made up of urban agriculture and quarrying/sand winning. The Industrial Sector is made up of manufacturing (breweries, beverages) and wood processing (plywood, boards). Most of the industries are located in the Asokwa-Ahinsan-Kaase industrial area, the hub of large-scale formal industries.

There is Vehicular parts production and service industry located at Suame Magazine which is the second largest industrial area in the metropolis. The commerce/service Consists of an integrated system of markets at Adum CBD, Kumasi Central Market (single largest market in West Africa) with linkages to the satellite markets at Asafo, Bantama, Asawase, Ayigya, Ahinsan, Oforikrom, Tafo, Atonsu-Agogo, Santasi, Suame, Amakom, Bomso and Tarkwa, etc. In addition to these, Banking, Insurance, Transportation and Telecommunication companies are found in Kumasi.



In Kumasi, all the mobile phone network operators in Ghana are also in operation. The regional headquarters of these network operators are situated in Kumasi. Internet service providers such as cloud, FnF among others help in augmenting the efforts of these network operators in the provision of internet service to the metropolis.

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## **CHAPTER FOUR**

### **DATA ANALYSIS AND DISCUSSION OF RESULTS**

#### **4.1 Introduction**

The focus of this chapter is to analyse the data gathered from the field in order to assess the operational performance of Vodafone Ghana with Accra and Kumasi as the case study areas. The chapter initially considered the background categories of respondents for the survey, a brief profile of Vodafone Ghana as well as the human and logistical strength of the company's branches in Accra and Kumasi. Data collected were analysed with respect to assessing the company's current operational performance. Here, issues discussed included the company's network coverage and market share, customers' satisfaction of products and services offered quality assurance practices and the operational challenges faced.

#### **4.2 Background and Characteristics of Respondents**

The background characteristics of respondents as referred to in this section deals with the presentation on the overview and number of respondents interviewed for the study. These have been presented subsequently under the various sub-sections under this section.

##### **4.2.1 Categories of Respondents**

Table 4.1 indicates the three main categories of respondents interviewed in both Accra and Kumasi for this study. These categories of respondents involved the management staff of Vodafone, customers of Vodafone and the vendors of sim cards and recharge vouchers.

Table 4.1: Categories of Respondents

<b>Categories</b>	<b>Number</b>
Management Staff	50
Customers	100
Vendors	50
<b>Total</b>	<b>200</b>

Source: Author's Construct, 2011.

Data collected from the 50 management staff considered issues related to the network coverage and market share of the company, quality assurance practices in the operations of Vodafone as well as the operational challenges faced by the company. The 100 customers responded to questions that aided in analyzing the issues related to the network coverage and market share of the company in both study areas, customers' satisfaction of products and services offered by the company on the Ghanaian market. Finally, the responses provided by the 50 vendors of sim cards and recharge vouchers aided in assessing the sale of these Vodafone products and how profitable it has been to these vendors.

#### **4.2.2 Characteristics of Respondents**

The basic characteristics of the respondents as gathered from the data collected and analysed have been presented here.

Management Staff of Vodafone Ghana: The management and staff sampled under the survey were located at Vodafone offices in Accra and Kumasi. In all, 50 management and supporting staff members were selected and interviewed out of which 20 of the respondents fell within the management staff category and the remaining 30 being in the supporting staff category. The

sampled management and supporting staff were made up of 50 percent males and 50 percent females.

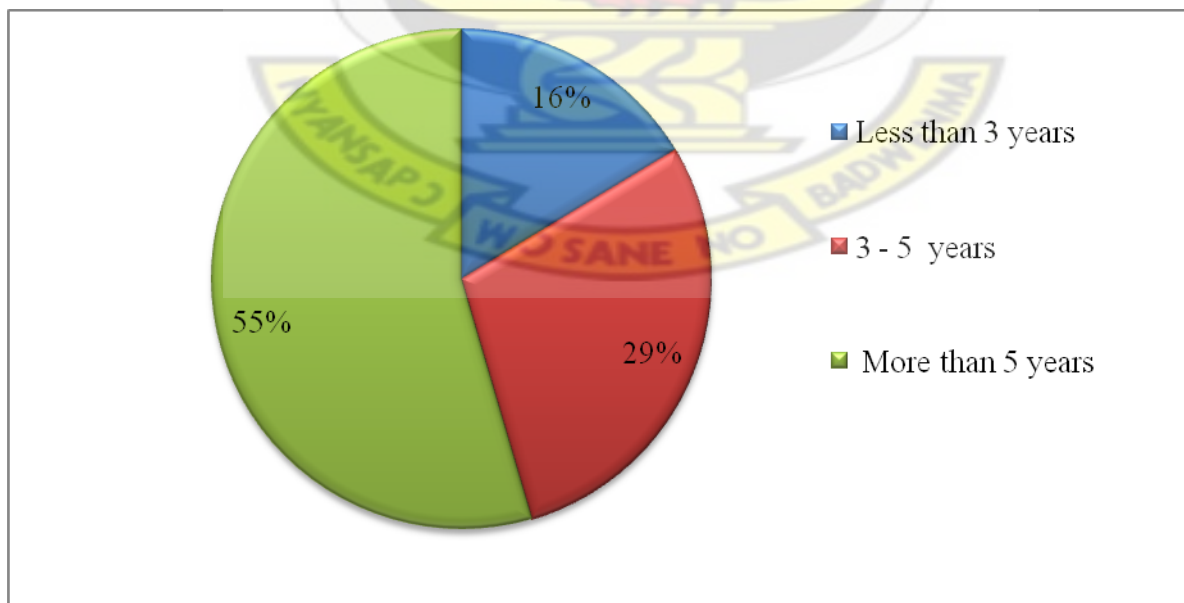
The study further revealed that, 60 percent of staff members have over 5years working experience with Vodafone Ghana while, 32 percent have been working with the company for the past 3- 5 years and the remaining 18 percent having worked for less than 3 years with Vodafone Ghana (see Figure 4.1). The understanding of the operations and performance of the company was understood to some extent by not less than 70 percent of the staff members interviewed for the study.

Table 4.2: Categories of Staff Interviewed

Category	Frequency
Management Staff	20
Supporting Staff Members	30
Total	50

Source: Field Survey, April 2011.

Figure 4.1 Staff Working Experience



Source: Field Survey, April 2011.

Customers of Vodafone Ghana: The 100 customers sampled from both Accra and Kumasi revealed that 39 percent were males with the remaining being females. Seventy-six percent of the customers were within an age range of 20 to 55 years, 20 percent were within 16 to 19 years with the remaining 4 percent being over 56 years. All the respondents could read and write with the least educational attainment being a Senior High School student. In addition, 66 percent of these sampled customers as shown in Table 5.3 were mobile phone users only and the remaining being in the other categories of customers sampled.

Out of these 100 customers, 38 percent have been using the Vodafone network for 7 to 9 years, 26 percent for more than 9 years, 14 percent for 4 to 6 years and 22 percent for 1-3 years. Customers assigned the prestige they have in using the network and the fact that almost all their contacts use this network as some of the nexus or factors for their continuous use of the network.

Table 4.3: Categories of Customers

<b>Category</b> <b>No. of Customers</b>	<b>Accra</b>		<b>Kumasi</b>	
	<b>No. of Customers</b>	<b>Percentage</b>	<b>No. of Customers</b>	<b>Percentage</b>
Fixed Line Only	2	4	4	8
Mobile Users Only	35	70	31	62
Fixed Line and Mobile Users Only	2	4	6	12
Mobile and USB Modem Internet Users Only	11	22	9	18
<b>Total</b>	<b>50</b>	<b>100</b>	<b>50</b>	<b>100</b>

Source: Field Survey, April 2011.

Vendors of Sim Cards and Recharge Vouchers: A total of 50 vendors (25 vendors each for Accra and Kumasi) were also accidentally sampled for interview. Sixty-nine percent were females with the remaining being males. All were within the age range of 18 to 47 years. Though all could read and write, the highest educational attainment was either the Senior High School Certificate or the Middle School Certificate while 5 percent of the sampled vendors have never been to school.

### **4.3 Profile of Vodafone Ghana**

Vodafone Ghana, a subsidiary of Vodafone is the world's largest mobile telecommunications group, with equity interests in 26 countries and Partner Networks in over 40 additional countries. As of 31 March, 2008, Vodafone had approximately 260 million proportionate customers worldwide (Vodafone Annual Report, 2010).

Vodafone Ghana, formerly Ghana Telecom, is the national telecom company of Ghana. Vodafone Ghana, originally the Post and Telecommunications Department of the Civil Service, went through several transformations before being renamed Ghana Telecom in 1996. It was divested first to a consortium called G-Comm Limited led by Telekom Malaysia and was later managed by a Norwegian management services company known as Telenor Management Partners (TMP).

Vodafone (formerly Ghana Telecom) is the number 3 mobile operator and the leading fixed line and broadband operator in Ghana. As of 31 March 2008, it had 1.4 million mobile customers, equivalent to a mobile market share of approximately 17 percent, and operated 379,000 fixed and 15,000 broadband lines.



In 2006, the Company had around 400,000 customers for fixed and mobile telephony and internet services. On July 3<sup>rd</sup> 2008, the sale of the company for \$900m to [Vodafone](#) group was announced. After the transaction closed, [Vodafone](#) had a 70 percent stake in the company, while the [Ghanaian](#) government will retain a 30 percent stake. On 16<sup>th</sup> April 2009, the company was rebranded as Vodafone Ghana.

#### **4.3.1 Services Provided by Vodafone Ghana**

Prepaid and post-paid Mobile service: Vodafone mobile prepaid service gives customers the flexibility to pay per second and upfront for all Vodafone services used. This means that consumers do not pay for services at the end of the month. With this service by Vodafone, it is convenient and easy for customers to stay active around the clock with handy top-up options through prepaid top-up cards from any of the company's outlets all over Ghana and Vodafone Credit Transfer from a retail points or from friends and family who are already on the Vodafone network.

The post-paid mobile service allows customers to enjoy the convenience of uninterrupted mobile service, without the worry of topping up or running out of credit. With the Vodafone mobile post-paid plan customers can have access to all of Vodafone's mobile services and simply pay at the end of the month.

Internet: Vodafone offers a variety of technologies and packages to make subscribers' choice of how to connect to the Internet very possible. There are products that are tailored for every kind of user – from the young professional to home or corporate users. Packages range from fixed broadband to mobile broadband solutions catering for different user requirements.

Vodafone's Dialup flat-rate (per minute) Internet access package is available for customers who use the Internet for no more than a few hours a month. With this service, subscribers pay a fixed rate per minute. As such, for postpaid customers, the Internet usage is billed as part of the normal monthly telephone bill. The company also has internet cafes that provide internet services to the public irrespective of the mobile network of which they are subscribers.

**Vodafone Broadband:** Vodafone Broadband is delivered using ADSL, a tested and proven technology which enables landlines not only to make and receive voice calls but also to access the internet. Vodafone Mobile Broadband gives customers internet access on y PC or laptop – whether at every location in the country.

**Fixed Line:** Vodafone fixed line offers voice and e data services and products at competitive rates on prepaid and post-paid consumption terms. Vodafone fixed line is accessible throughout Ghana either on the company's traditional fixed line or mobile desk phones.

**Fixed Line Calling Card:** This service by Vodafone makes it possible for customers to make national or international calls from any Vodafone fixed line with the credit on the fixed line calling card.

#### **4.3.2 Human and Logistical Capacity of Accra and Kumasi Branches of Vodafone**

Vodafone has a total of 10 offices in Accra located at Circle, Achimota, Madina, East Legon, Tema Community One, Ministries, Accra High Street, Dworwulu, Gbawe and Hatso. The Circle area office serves as the national headquarters of Vodafone's operations in Ghana. In Kumasi, the company has two offices located at Adum and Kumasi with that of Adum serving as the

regional headquarters of Ashanti region. As indicated in Table 4.4 and 4.5, a total of 710 and 155 persons are employed by the Vodafone Company in Accra and Kumasi respectively. The entire human resource of the company can be categorized as the management staff and the supporting staff.

The management staff of Vodafone is made up of senior executive officers and the junior officers. The senior executive officers category is made up of the managers and accountants for the various office areas. In the case of the headquarters, the managing director, the administrative manager, the corporate and human resource manager, marketing manager and the technical manager form part of the senior executive officers category. The junior officers are made-up of the secretaries, technicians, sales representative, customer care representatives and marketing officers. In Accra and Kumasi, the number of management staff is 600 and 125 respectively with Diploma/HND as their minimum educational qualification and Postgraduate Degree as the maximum.

The educational qualifications for the supporting staff are the middle school certificate and the Senior High School Certificate (SHSC) formerly known as the Senior Secondary School Certificate (SSSC). This category is made-up of people employed in positions as cleaners, messengers and drivers. However, the driving and cleaning positions have been outsourced to the Magna Company Limited and Resource Plus Limited respectively. In all, a total of 110 and 30 persons are employed as supporting staff for the company in Accra and Kumasi respectively.

Table 4.4: Human Resource Capacity of Vodafone (Accra)

<div>STAFF</div> <div>NUMBER</div>		NUMBER OF STAFF				
		Middle School Certificate	SHSC	Diploma / HND	Bachelors Degree / Chartered Certificate Holders	Postgraduate Degree(Post Graduate Diploma, Masters etc)
Management Staff	Senior Executive officers	-	-	-	125	75
	Junior Officers	-	-	250	150	
Supporting Staff		47	63	-	-	-
<b>Total</b>		<b>30</b>	<b>40</b>	<b>250</b>	<b>275</b>	<b>75</b>

Source: Human Resource Division of Vodafone Ghana, April 2010

Table 4.5: Human Resource Capacity of Vodafone (Kumasi)

STAFF / NUMBER		NUMBER OF STAFF				
		Middle School Certificate	SHSC	Diploma / HND	Bachelors Degree / Chartered Certificate Holders	Postgraduate Degree(Post Graduate Diploma, Masters etc)
Management Staff	Senior Executive officers	-	-	-	35	20
	Junior Officers	-	-	20	50	-
Supporting Staff		10	20	-	-	-
<b>Total</b>		<b>10</b>	<b>20</b>	<b>20</b>	<b>85</b>	<b>20</b>

Source: Human Resource Division of Vodafone Ghana, April 2010

In terms of logistics of the company, both Accra and Kumasi of has office buildings with spacious and well ventilated rooms in all the area offices. Each management staff is assigned to an office telephone and a flat screen computer networked and hooked-up to the internet. Printing, photocopying and faxing of documents are done through secretaries who have been assigned to each department and have printers, photocopy, scan and fax machines in their offices. On the average, five and three vehicles are situated at all the area offices of Accra and Kumasi

respectively to carry out the official transport duties of the company. The computers, printers, photocopy, scan and fax machines are maintained periodically through cleaning, backing up and deleting old files on the computers as well as replacing damaged parts. To ensure efficiency of these equipments, the company seeks to replace these equipments every five years. Regular “servicing” of the company’s vehicles are strictly adhered to so as to ensure efficiency in performance.

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#### **4.4 Assessing the Operations of Vodafone Ghana in Accra and Kumasi**

The performance of Vodafone in its operations in Accra and Kumasi has been discussed with respect to data collected from the field. The discussion have broadly been categorised in the areas of Vodafone’s coverage and market share as well as the products and services the company offers on the Ghanaian market.

##### **4.4.1 Network Coverage and Market Share of Vodafone Ghana**

Telecommunication companies have areas within which customers have access to their network services. Cell sites located at various vantage points broadcast network services within a particular radius of its location. Hence, areas within the radius will have network coverage. These areas determine the extent of network coverage of the telecommunication company. The network coverage therefore refers to the area covered by a particular telecommunication company in terms of service for a particular product usually mobile service of any telecommunication company.

The network coverage is a factor in knowing the likely market share of the company. In that, when the network coverage of a telecommunication industry excludes an area, it limits the ability



of people in such areas to subscribe to the services of that company. This thus limits the ability of the company to increase its customer base so as to increase its market share.

This section therefore assesses the performance of Vodafone Ghana by considering the areas of network coverage of the company, the market share of the company in Ghana and their products offered on the Ghanaian market.

**Network Coverage** The coverage of Vodafone's fixed line service is throughout Ghana. The mobile phone service on the other hand had its initial coverage in Accra, Kumasi and Obuasi when Vodafone, then known as Ghana Telecom (GT) started its mobile phone network service operations in 1996. Between 2000 and 2007, the company increased its nationwide coverage to 60 percent which included all the regional capitals, 80 percent of the nation's Metropolitan, Municipal and District (MMDA) capitals and their major towns. In 2010, mobile phone network coverage by Vodafone has increased to 85 percent to include all the MMDA capitals except some capitals of newly created districts such as Wa East District. The remaining 15 percent includes the villages and towns in most of the newly created districts.

As at 1996, the company had a total of 350 cell sites which served areas in Accra, Kumasi and Obuasi. The number of cell sites increased to 1950 between 2000 and 2007 to serve all regional and district capitals as well the major towns in these districts. After the acquisition of GT by Vodafone Ghana in 2007, the number of cell sites has been increased to 2100 to improve coverage to most villages and small communities in all the ten regions of Ghana.

The number of cell sites in Accra has increased from 180 in 1996 when the then GT started its mobile phone network operations to 600 cell sites as at 2010. Similarly, the number of cell sites



in Kumasi has also been increased from 50 cell sites to a present number of 230. This has engineered the capacity of Vodafone to have complete network coverage in all parts of Accra and Kumasi.

**Market Share of the Company:** The market share here refers to the total number of active subscribers of Vodafone Ghana. The nationwide market share of Vodafone Ghana as at 2010 was 14 percent of the total active subscribers of mobile phone users in Ghana. According to the Marketing Department of the Company, as at 2010 there are approximately 6 million and 3.5 million mobile phone users in Accra and Kumasi respectively. Vodafone's market share for the year 2010 in Accra and Kumasi as shown in Table 4.6 was 35 percent and 31 percent respectively of the total number of active mobile phone users in their respective regions. The market share of the company in Accra and Kumasi represented 43 percent and 31 percent respectively of the total accumulated revenue of the company in 2010.

The 34.7 percentage increase of Vodafone's share of mobile phone users in Kumasi for the 2009 to 2010 period was higher than that of the 2008 to 2009 figure of 27.8 percent. That of Accra for 2009 to 2010 was 29.6 percent increase which was also higher than the 2008 to 2009 figure of 28.6 percent. These percentage increases have been attributed to the extensive advertising and other maximum customer satisfaction oriented marketing strategies embarked on by the company for the 2009 to 2010 period.

Table 4.6: Vodafone's Percentage Share of Mobile Phone Users

<b>Years</b>	<b>Accra</b>	<b>Kumasi</b>
	Percentage Share of the	Percentage Share of the

<b>Vodafone's Share of Mobile Users</b>	Region's mobile phone users (%)	Region's mobile phone users (%)
2008	21	18
2009	27	23
2010	35	31

Source: Marketing Department of Vodafone, April 2010

As shown in Table 4.7, out of the total number of Vodafone respondents interviewed in both Accra and Kumasi, 52 percent used only the Vodafone network. Reasons such as poor network services at certain times of the day as well as relatively high call and internet prices were cited as the nexus of factors resulting in the use of Vodafone and other networks as well as the thought of changing from Vodafone to other network entirely. The market share of Vodafone in terms of the number of its subscribers as well as the monetary gains of the company is and will thus be affected if steps are not taken to address such customer concerns.

Table 4.7: Usage of Vodafone and other Networks

<b>Network Usage</b> <b>No. of Respondents</b>	<b>Accra</b>		<b>Kumasi</b>	
	Number	Percentage	Number	Percentage
Vodafone Alone	21	42	31	62
Vodafone and Other Networks	29	58	19	38
<b>Total</b>	<b>50</b>	<b>100</b>	<b>50</b>	<b>100</b>

Source: Field Survey, April 2011

#### 4.4.2 Assessing Vodafone's Products and Services offered on the Ghanaian Market

In the assessment of the performance of Vodafone Ghana in terms of the products and services offered in Accra and Kumasi, certain key issues were considered as indicators. These included;

customers' assessment of the network's availability and stability, charges per minute for calls, messages and internet services, attendance to customers at the "call for you" centers. In addition, the sale of Sim cards, recharge vouchers, USB modems and computers (laptops and notebooks) by Vodafone were also considered to know whether the company's sale of these products was increasing or otherwise.

(A) Network Availability and Stability: This section deals with the ability to use the Vodafone network for all its intended purposes without network interruption. With this, customers assessed the network in terms of call completion rate, interconnectivity among other networks and call clearness, text messaging and delivery and internet connectivity.

Call Completion Rate: In response to the quality of services provided by Vodafone Ghana, the study revealed that 78 percent and 62 percent of customers (mobile phone and fixed line users) in Accra and Kumasi respectively responded that Vodafone's call completion rate is very high (see Table 5.8). It could be rationalized that, 70 percent of respondents in both Accra and Kumasi reported of their ability to make calls without any form of interruption (network failure). However, 13 percent of respondents in both study areas stated that there are interruptions in their calls. For instance, one respondent stated that:

*"Sometimes during my conversation on the phone, I hear the voice of another person also on the line".* Another person also opined that: *"In most of my calls, the call usually ends abruptly and I really suffer before getting my calls through to my contacts".*

Discussions with the management staff of the company revealed that such complains are mostly received from the mobile phone customers. The staff further elaborated that interruptions in calls

are mostly experienced by customers in areas where the company is still trying to extend and improve its network coverage.

Table 4.8: Call Completion Rate

Completion Rate	Accra		Kumasi	
	Number	%	Number	%
Very High	39	78	31	62
High	7	14	10	20
Interruptive	4	8	9	18
None	-	-	-	-
<b>Total</b>	<b>50</b>	<b>100</b>	<b>50</b>	<b>100</b>

Source: Field Survey, April 2011.

Interconnectivity among Networks and Clearness of Calls: In response to subscriber's assessment of interconnectivity of Vodafone Ghana with other networks, it was evident that 92 percent of subscribers in both study areas responded in support of the fact that it is easy to connect to other networks using Vodafone Ghana. The remaining 8 percent of respondents however complained of poor connectivity which was be due to limited coverage in those areas that the company is extending and improving its coverage.

Text Messaging and Delivery: The respondents (with the exception of those who used the fixed line only) in both Accra and Kumasi responded that sending and receiving text messages has not been a problem as far as their use of Vodafone's network is concerned.

Internet Connectivity: Assessing the internet connectivity service offered by Vodafone was done by all the customers in both study areas since the fixed line users used their phones for broad band service whilst the mobile phone users also browsed the internet either directly on their phones or used their phones as internet modems. The respondents made it known that the internet connectivity service was not reliable. According to the respondents, the difficulty encountered in

getting internet service using the Vodafone modems coupled with the high prices charged per megabyte of data makes internet service by Vodafone not the preferred choice on the Ghanaian market. However, observations made during the survey revealed that Vodafone's internet cafés offers the highest internet connectivity on the market.

#### A. Charges for Phone Calls, Messages (Text and Multimedia) and Internet Service

As at the time of the survey, Vodafone charges 4 pesewas per every second of domestic phone calls, 8 pesewas per second for international calls, 4 pesewas per every text message and 20 pesewas per every megabyte of internet service. The charges on the domestic and international phone calls and were assessed to be affordable by both the fixed line and mobile phone users of Vodafone. That of the text messages was also assessed to be affordable by the mobile phone users. The charge on the internet service as already discussed was considered to be expensive and does not even correspond with the service it offers.

(B) Attendance to customers at the “call for you” centres: The respondents interviewed were generally satisfied with the treatment being offered them whenever they visited the “call for you centers”. The respondents were equally satisfied with the treatment offered them by the customer care representatives when they call the customer care help line. Observations made in the survey showed that customers' spent not more than 15 minutes on the average in getting their reported problems solved by the “care for you” service representatives. The environment in these “care for you” centers was very relaxing though formal. The respondents also appreciated the fact that in most of the cases, their concerns are always addressed promptly and efficiently.

(C) Assessment of Sale of Vodafone's Products on the Ghanaian Market: As indicated in Table 4.9, the sale of Vodafone's products in Accra and Kumasi has been increasing but at a



decreasing rate. In Accra, the total quantity of items sold as presented in the Table increased by 11 percent for the 2009 to 2010 period which was smaller than the 2008 to 2009 percentage increase of 17.4 percent. That of Kumasi was not different. The rate of increase in Kumasi for the 2009 to 2010 period was 1.2 percent which was approximately 10 times smaller than the 2008 to 2009 rate of 10 percent. It could therefore be inferred that, though the company's performance in terms of its sale of products had increased for the periods under consideration; the rate of increase has decreased by an average rate of 7.6 percent in both Accra and Kumasi.

Table 4.9: Vodafone Products and the Annual Quantity Sold for Accra and Kumasi

<b>Vodafone Products</b>  <b>Quantity Sold</b>	<b>Quantity Sold in GH¢ (Accra)</b>			<b>Quantity Sold GH¢ (Kumasi)</b>		
	<b>2008</b>	<b>2009</b>	<b>2010</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>
Sim Cards	43,300	33,000	21,000	20,300	16,000	24,000
Recharge Vouchers	455,330	571,000	622,000	385,330	424, 000	412,000
Computers	71,000	65,000	99,100	34,000	36,000	44,000
USB Modems	19,000	22,000	25,000	21,000	31,000	33,000
<b>Total</b>	<b>588,630</b>	<b>691,000</b>	<b>767,100</b>	<b>460,630</b>	<b>507,000</b>	<b>513,000</b>

**Source: Marketing Department of Vodafone, April 2011**

The research sought further to know from Sim and recharge cards vendors as to what proportion of their annual sales is made from the sale of Vodafone's Sim cards and recharge vouchers. The



non-response recorded for both years under consideration were those vendors who did not operate during these years. For the year 2009 (as shown in Table 5.10), an average of 42 percent of vendors out of the 35 vendors who responded indicated that, 21 to 60 percent of their annual sales is made from the sale of Vodafone's Sim cards and recharge vouchers. In 2010, 81 percent of vendors interviewed out of the 48 vendors who responded, indicated that less than 40 percent of their annual sales were from the sale Vodafone's Sim cards and recharge vouchers.

Table 4.10: Contribution of Vodafone's Sim and Recharge Cards to Annual (2010)

Sales of Vendors

Proportion of Annual Sales Number of Respondents	Number of Vendors	
	2009	2010
0 - 20 %	1	17
21 - 40 %	10	22
41 - 60 %	14	2
61 - 80 %	7	1
81 - 100 %	3	6
None Response	15	2
<b>Total</b>	<b>50</b>	<b>50</b>

Source: Field Survey, April 2011.

## 4.5 Quality Assurance Measures

Vodafone's commitment to improve on its products and services has necessitated the adoption of certain measures to ensure quality products and services to its customers. This section discusses the quality assurance measures in with respect to staff training and response to customer complaints as well as products and services introduced to improve customers' satisfaction.

### 4.5.1 Staff Training

Vodafone recognizes the importance of training to the overall performance of human resource in corporate development. The study revealed that, before 2008 all newly recruited members of staff were given close to two months training so as to truly serve customers better and project the name of the company. This was mainly due to the company's inability to access and employ people with the requisite skills needed by the company upfront. However, after 2008, most newly recruited members are given training for a maximum of two weeks. This gives the idea which was later confirmed by the human resource director of the Company that, management has cut down some unnecessary spending in its operations and therefore looks out for people with the right qualification who require less training and would give the company value for money.

#### **4.5.2 Staff Response to Complains**

Management has continued to improve its quest to deliver quality service to customers by keeping track of clients' complaints. In this regard, all complaints either verbal or telephone or written, are recorded for the necessary response and the training of newly recruited staff.

#### **4.5.3 Product Advancement and Innovation**

Vodafone Ghana continues to increase and improve upon its products available on the market for public consumption. Currently the company can boast of the following products and services.

Sim Cards and their Registration: After 2007 sim cards are sold in close proximity to the customer as compared to times before when customers had only one destination to access chips, which were the company's retail shops. During that time, chips were also very expensive GH¢ 5 as compared to the current price of GH¢ 1. Sim card registration can also be easily done by sim card and recharge voucher vendors.

Laptops : The company currently offers modern laptops for sale in their retail shops. This package was not available to customers until 2008 till date. In view of this, customers are able to access modern computers that have ready internet connection properties to aid their office work and learning activities.

Landline: Landline service though has not transformed much has increased from 15 penetration to about 28 percent penetration level. After 2008, the company also affords customers a post paid offer where customers can predetermine and regulate the amount of credit preferred within a month or any specific period of time. Before now, customers had no privilege of regulating their phone use and were mandated to pay their bills at the end of each month. This situation was not helpful since about 60 percent of customers could not settle their monthly bills leading to unexpected disconnection.

Vodafone Internet Cafes and Modems : Vodafone is still working to improve the service it offers to its customers. In recent times, one of those areas has been the connection and provision of internet services. One of the key areas is the availability of Internet cafes with a very efficient speed which did not exist until 2010.

Though the company offered modems for sale to customers before 2008, it was within the affordability of the rich and a few middle income persons. Also, the internet modems which were on sale at that time were not handy and required the assistance of technical staff of the company to be properly installed.

Currently, the internet modems which are on sale are very handy and require little skill to install and use. The modems of today have been improved to include Third Generation (3G) network

which allows the device to perform at a high speed in terms of assessing web pages and downloading.

Vodafone Booths - Telephones for Schools: Vodafone Booth holds the key to solving the Ghana Education Service's (GES) ban on the use of mobile phones on Senior High School Campuses. In July 2010, Vodafone came up with this facility to enable students to reach families and friends using mobile chips that they could be loaded with credit and also allow for text messages to be received at the same time.

Itemized Billing:, After 2009, customers still enjoy the service of requesting for an itemized bill at the end of each month. Through this, customers get to know how much they spend on all the services they are provided with. This makes it easier for customers to monitor and manage their telephone usage and spending. Vodafone allows customers to keep verify their calls and up to date with their account.

International Direct Dialling (IDD): Vodafone allows postpaid customers to activate IDD service on their fixed line so they can call abroad directly at competitive rates.

Call Transfer: This service enables Vodafone users to transfer all incoming calls to any fixed or mobile number of your choice within Ghana. This means that customers never have to miss an important call even if you are away from home.

#### **4.6 Operational Challenges of Vodafone Ghana**

It could be realized from the fore discussion that Vodafone Ghana has made efforts to improve upon its services and products geared towards customer satisfaction. This notwithstanding, the company faces some challenges in its operations.

Management exhibits some traits which call for some remedial measures. Some members of staff complained of lack of consultation in taking decisions that bother on the future development and interest of Vodafone Ghana. A typical case in point is the closure of some 9 warehouses in Accra and Kumasi leaving only three (1 in Kumasi and 2 in Accra). This, according to staff of the supply chain would create unnecessary delay in the order and purchase of Vodafone products. Thus, people from Northern Ghana and around would have to make their orders through Kumasi which is quite a distance away. When this happens, petty requests such as underground cables and copper rods may take an undue time to be supplied.

Also, workers complained of some recent acts of frustrations meted out to some old workers which they explained as attempts to kill their interest. This they buttressed with the retrenchment exercise which took place in 2009 and is still on-going in the company.

In the conduct of the study, it became known that most of the sales executives lack accounting background which makes the rendering of accounts at the local level difficult. This according to some staff of the supply chain have resulted in some resources being diverted into the private businesses of staff members thereby leaving a gap between the physical stocks and operating stocks. This yearly have resulted in the loss of revenue to the company.

Secondly, the supply chain faces some difficulties in the supply of goods that are ordered due to delay in payment of suppliers. This in the view of some staff members has been as a result of the accounts section taking so long (sometimes more than 60 working days) to make payment to suppliers after goods have been supplied to Vodafone Ghana.

Also, sales executives suffer from limited credit sales which prevent them from procuring more goods when their credit limits are exceeded. This poses some difficulties on financial returns



because some commodities even though may be needed, may not be purchased due to an exceeded credit limit.

Vodafone Ghana also faces difficulty with the acquisition of cell sites due to cumbersome land acquisition processes and huge financial commitments paid to authorizing agencies and landlords of the respective sites under purchase. This has been the case due to multiple claim of ownership of land leading to the settlement of a number of people. Also, after successfully paying off landlords, the respective chiefs who oversee land in the specific areas need also to be compensated for approval before any meaningful activity can commence on such sites. All these impose financial burdens on the Company and slow down the rate of operation.

One of the major complains of staff of Vodafone that seems to be a worry is job insecurity. Workers complained of the unannounced retrenchment of staff at unexpected times. This they say affects their delivery and performance since they are not too sure as to begin whatever initiatives they have or not for fear of not completing the exercise.

There is lack of consistent and concise regulatory framework for interconnection among operators. Government who is expected to act as a regulator lacks the expertise to negotiate the complex financial, technical and operational details of interconnection and pricing arrangements. Government promoted the inter industry approach as a solution but has its own challenges.

#### **4.7 Administrative Response to the Operational Challenges**



Management is taking steps (as outlined below) which are aimed at resolving some of the administrative and operational challenges affecting Vodafone Ghana so as to improve upon its holding in the telecommunication business in Ghana.

- Management in spite of the improvement in coverage has plans of further expansion. It is the aim of the company to extend its network to every community.
- Management is taking steps to improve upon its ICT base so as to take on any increase in customer base without hitches in service quality.
- Vodafone Ghana is currently undertaking an overhauling exercise so as to lay off redundant staff geared towards maintaining and recruiting required staff needed to improve upon general performance of the company and cut down on cost.
- Management takes into consideration the global trends of the telecommunication industry, world business arena and customer demands in the provision of new products and overall service delivery.
- Management intends to introduce a monitoring device so as to be able to keep track of stocks which will help to reduce and minimize loss.
- Management in response to the exorbitant internet rates has introduced a recharge procedure that allows data users to have a much cheaper rate as compared to voice users.

The above stated measures have been seen to be the initial steps in redefining the companies internal structures of operations to improve upon its performance in Ghana's telecommunication industry.

## **CHAPTER FIVE**

### **SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS**

#### **5.1 Introduction**

The findings from the analysis and discussions of data in the previous chapter have been summarized in this chapter. The chapter thus presents on the summary of findings and recommendations made to improve on the operational performance of Vodafone in the Ghanaian telecommunication industry.

#### **5.2 Summary of Major Findings**

This section discusses the summary of the major findings of the data analysed in the previous chapter. These summarized findings relates to the operational performance of the Vodafone Company in Ghana's telecommunication industry with Accra and Kumasi branches of Vodafone serving as case studies.

##### **5.2.1 Regulatory Environment**

The government through its agencies and departments in the telecommunication sector is to act as a regulator in such a market. However, the study indicated that interconnectivity among networks still remains the sole inter-company affair due to the lack of competent technical staff on the part of the government to mediate such arrangement. This therefore accounts for some of the reasons why conflicts erupt in the instance where compromise is not reached and therefore affects the consumer whose fault it is not but rather a failure on the part of the regulator, which is government.

### 5.2.2 Human and Logistical Capacity of Vodafone

- From the data collected, a total of 710 and 155 persons are employed by the Vodafone Company in Accra and Kumasi respectively.
- In Accra and Kumasi, the number of management staff is 600 and 125 respectively with Diploma/HND as their minimum educational qualification and Postgraduate Degree as the maximum.
- Again, a total of 110 and 30 persons are employed as supporting staff for the company in Accra and Kumasi respectively.
- In the area of logistical capacity, the company's branches in Accra and Kumasi have office buildings with spacious and well ventilated rooms in all the area offices. Each management staff has been equipped with an office telephone and a flat screen computer networked and hooked-up to the internet.
- Printing, photocopying and faxing of documents are done through secretaries who have been assigned to each department and have printers, photocopy, scan and fax machines in their offices.
- On the average, five and three vehicles are situated at all the area offices of Accra and Kumasi respectively to carry out the official transport duties of the company.
- To ensure maximum performance, the computers, printers, photocopy, scan and fax machines are maintained periodically through cleaning, backing up and deleting old files on the computers as well as replacing damaged parts. The company seeks to replace these equipments every five years. Regular "servicing" of the company's vehicles are strictly adhered to so as to ensure efficiency in performance.

### 5.2.3 Assessing the Performance of Vodafone's Operations

#### *Network Coverage*

- In terms of network coverage, the number of cell sites in Accra has increased from 180 in 1996 when the then GT started its mobile phone network operations to 600 cell sites as at 2010.
- Similarly, the number of cell sites in Kumasi has also been increased from 50 cell sites to a present number of 230. This has engineered the capacity of Vodafone to have complete network coverage in all parts of Accra and Kumasi.

#### *Market Share*

- As at 2010 there are approximately 6 million and 3.5 million mobile phone users in Accra and Kumasi respectively.
- Vodafone's market share for the year 2010 in Accra and Kumasi was 35 percent and 31 percent respectively of the total number of active mobile phone users in their respective regions.
- Vodafone's share of mobile phone users in Accra and Kumasi for the 2009 to 2010 period increased by 29.6 percent and 34.7 percent. These percentage increases have been attributed to the extensive advertising and other maximum customer satisfaction oriented marketing strategies embarked on by the company for the 2009 to 2010 period.
- A total of 52 percent of customers interviewed used only the Vodafone network. Reasons such as poor network services at certain times of the day as well as relatively high call and internet prices were cited as the nexus of factors resulting in the use of Vodafone and other networks, as well as the thought of changing from Vodafone to other network entirely.

### *Vodafone's Products and Services*

- The study revealed that 78 percent and 62 percent of customers (mobile phone and fixed line users) in Accra and Kumasi respectively responded that Vodafone's call completion rate is very high. This meant that most customers could make calls without any form of interruption (network failure). However, call interruptions according to Vodafone's staff were experienced by customers in areas where the company is still trying to extend and improve its network coverage.
- Again, 92 percent of subscribers in both study areas responded in support of the fact that it is easy to connect to other networks using Vodafone Ghana.
- All respondents (with the exception of those who used the fixed line only) in both Accra and Kumasi responded positively that sending and receiving text messages has not been a problem as far as their use of Vodafone's network is concerned.
- According to the respondents, the difficulty encountered in getting internet service using the Vodafone modems coupled with the high prices charged per megabyte of data makes internet service by Vodafone not the preferred choice on the Ghanaian market. However, observations made during the survey revealed that Vodafone's internet cafés offers the highest internet connectivity on the market.
- The charges on the domestic and international phone calls and were assessed to be affordable by both the fixed line and mobile phone users of Vodafone.
- All respondents interviewed were satisfied with the treatment being offered them whenever they visited the "call for you centers". Customers' spent not more that 15 minutes on the average in getting their reported problems solved by the "care for you" service representatives.



- The sale of Vodafone's products in Accra and Kumasi has been increasing but at a decreasing rate of an average rate of 7.6 percent in both Accra and Kumasi. This has been attributed to the stiff competition being offered by the other telecommunication industries in terms of affordable prices of their products and services.
- In 2009, 42 percent of vendors out of the 35 vendors who responded indicated that, 21 to 60 percent of their annual sales were made from the sale of Vodafone's Sim cards and recharge vouchers. In 2010, 81 percent of vendors interviewed out of the 48 vendors who responded, indicated that less than 40 percent of their annual sales were from the sale Vodafone's Sim cards and recharge vouchers.

#### **5.2.4 Quality Assurance Practices**

- After 2008, most newly recruited members are given training for a maximum of two weeks. This way, management has cut down their spending on in-service training by employing people with the right qualification..
- Management has continued to improve its quest to deliver quality service to customers by keeping track of clients' complaints.
- Vodafone Ghana continues to increase and improve upon its products available on the market for public consumption through; easy access to sim cards and their registration, sale of modern computers with ready internet connection properties, Vodafone high speed internet cafes and modems, Vodafone telephone booths for Senior High Schools and call transfer services.



## **5.2.5 Operational Challenges of Vodafone and Administrative Response to the Challenges**

### *Operational Challenges*

- Lack of consultation in taking decisions that bother on the future development and interest of Vodafone Ghana. A typical case in point is the closure of some 9 warehouses in Accra and Kumasi leaving only three (1 in Kumasi and 2 in Accra).
- Also, workers complained of some recent acts of frustrations meted out to some old workers which they explained as attempts to kill their interest. This they buttressed with the retrenchment exercise which took place in 2009 and is still on-going in the company.
- Difficulty in rendering account due to the lack of accounting background of some staff responsible for rendering such accounts.
- Delay in payment of suppliers which leads to the shortage of supplies. This in the view of some staff members has been as a result of the accounts section taking so long (sometimes more than 60 working days) to make payment to suppliers after goods have been supplied to Vodafone Ghana.
- Vodafone Ghana also faces difficulty with the acquisition of cell sites due to cumbersome land acquisition processes and huge financial commitments paid to authorizing agencies and landlords of the respective sites under purchase.
- One of the major complains of staff of Vodafone that seems to be a worry is job insecurity. Workers complained of the unannounced retrenchment of staff at unexpected times. This they say affects their delivery and performance since they are not too sure as to begin whatever initiatives they have or not for fear of not completing the exercise.

### *Administrative Response to the Operational Challenges*

- Management in spite of the improvement in coverage has plans of further expansion. It is the aim of the company to extend its network to every community.
- Management is taking steps to improve upon its ICT base so as to take on any increase in customer base without hitches in service quality.
- Vodafone Ghana is currently undertaking an overhauling exercise so as to lay off redundant staff geared towards maintaining and recruiting required staff needed to improve upon general performance of the company and cut down on cost.
- Management takes into consideration the global trends of the telecommunication industry, world business arena and customer demands in the provision of new products and overall service delivery.
- Management intends to introduce a monitoring device so as to be able to keep track of stocks which will help to reduce and minimize loss.
- Management in response to the exorbitant internet rates has introduced a recharge procedure that allows data users to have a much cheaper rate as compared to voice users.

### **5.3 Recommendations for Policy Considerations**

In view of the findings that evolved from the study, the following recommendations have been made for policy considerations in improving on the operational performance of Vodafone Ghana Company as well as other telecommunication companies operating in Ghana.

#### **5.3.1 Industry Regulators**

It is recommended that in spite of the level of satisfaction expressed by customers of Vodafone, industry regulators such as the Ministry of Communication and the National Communications Authority should be awakened to take pragmatic steps to ensure that customers get value for their money spent on the products and services offered by these telecommunication companies.

The above can be done by encouraging and sensitizing mobile companies to focus their attention and resources on service quality dimensions for which customers are not satisfied whiles paying little attention on other trivial dimensions. Efforts in this regard should be channeled towards technical efficiency, empathy, reliability and economy of service quality delivered.

### **5.3.2 Telecommunication Industries (Vodafone Ghana)**

The study's findings revealed that Vodafone like all the other telecommunication companies take knowledge of their customer's dissatisfaction with their service quality and work hard to improve the situation. Management of Vodafone Ghana and the other telecommunication companies must understand that generally their customer satisfaction is only equal to and not better than expected, and that they ought to work towards exceeding the expectation and desired service quality of their customers. This is with respect to charges on products and services as well as network stability and reliability.

Again, Vodafone Ghana should consider as very important, the likelihood of customers switching to other networks due to dissatisfaction with certain services especially the internet service which is popularly alleged by many users. It is thus recommended that, the company in addition to its current introduction of the 3G network should aim at securing its customers by offering not only a high speed and reliable internet service but an affordable one as well.

Finally, in the event of taking decisions, it is best that the views of all categories of workers and department be taken into consideration. Encouraging a much participatory form of decision-making which considers the views of all persons especially that of the lower rank officers is a necessity in improving on the operational performance of the company.

### **5.3.3 Recommendations for future research on Ghana's Telecommunication Industry.**

The study mainly assessed the operational performance of Vodafone Ghana in the Telecommunication industry of Ghana. It is recommended that future research should:

- Conduct the study in comparison with other telecommunication companies so as to truly assess the strengths and weakness of each telecommunication company.
- Separately examine customer satisfaction with regards to fixed lines and prepaid services.
- Develop and verify a model for Ghana's telecom industry or verify disconfirmation theories in other different industry settings.

### **5.4 Conclusion**

A well managed telecommunication system has proven to be part of the nexus of factors in accelerating the development of a nation. Vodafone Ghana's contribution to the successes chalked by Ghana's telecommunication industry has been significant. That notwithstanding, the improvement of the company's operational performance remains a major factor in not only competing favourably in the telecommunication market, but also, in augmenting the companies contribution to the socio-economic development of the nation.

Assessing the operational performance of the company in the telecommunication industry as the focus of this study has revealed some findings. These findings as discussed have provided the

necessary platform in making recommendations in improving on the operational performance of Vodafone.

# KNUST



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## **APPENDIX I - QUESTIONNAIRE FOR MANAGEMENT STAFF**

### **INSTITUTE OF DISTANCE LEARNING**

### **COMMONWEALTH EXECUTIVE MASTERS IN PUBLIC ADMINISTRATION**

## **KNUST**

This questionnaire is intended to collect data towards the accomplishment of a master degree. The study topic is “a survey on the operational performance of vodafone ghana company limited in the ghanaian telecommunication industry”. any information collected as part of this exercise will be used strictly for academic purposes

**NAME OF RESPONDENT:** \_\_\_\_\_

**DEPARTMENT/DIVISION:** \_\_\_\_\_

**AREA:** Accra ( ) Kumasi ( )

### **REGULATORY ENVIRONMENT**

1. Are there regulatory barriers to the operations of Vodafone Ghana? Yes No  
If yes, what are these? Pls outline them.

.....  
.....

2. How does this affect performance of the company?

.....  
.....

3. How does Vodafone respond to such barriers?

.....  
.....

4. What are the prospects of the Ghanaian market for the expansion of Vodafone Ghana?

.....  
.....

### **RESOURCE AND TECHNICAL BASE**

5. What is the capacity of the existing human resource of the company?

STAFF NUMBER		NUMBER OF STAFF				
		Middle School Certificate	SHSC	Diploma / HND	Bachelors Degree / Chartered Certificate Holders	Postgraduate Degree(Post Graduate Diploma, Masters etc)
Management Staff	Senior Executive officers					
	Junior Officers					
Supporting Staff						

6. Does Management organize training for staff? A)Yes b)No

How often, if yes

7. Does management monitor the operations of staff in the performance of their duties?

a) Yes b) No

If yes, how does management monitor performance often?

8. How informed is management about the needs of staff?

a) Very informed b) Informed c) Not quite informed d) Not Informed

ii. What are some of the needs of customers reported through retailers?

.....  
 .....

iii. What measures are in place to address such difficulties?

.....  
 .....

9. Is management committed to complain from customers through retailers? a)Yes b) No

10. How informed is management about the needs of customers?

a) Very informed b) Informed c) Not quite informed d) Not Informed

11. What products have been on the market since the last five years?

.....  
.....

12. What informs management's introduction of new products?

.....  
.....

13. Does management have modern technology to deliver to customers? a) Yes b) No

a) What has been the technological evolution of Vodafone since its establishment? Pls fill the table below

YEAR / PERIOD	TECHNOLOGY TYPE

B). Does management intend to introduce new technologies? a) Yes b) No

ii. Pls give reason for the above.

.....  
.....

iii. How will this impact on performance of Vodafone?

.....  
.....

14. What is the current logistical base of the company? Pls fill the table below

Logistics	Number	Condition


### **SERVICE COVERAGE AND MARKET SHARE**

15. What have been the changes in area coverage over the last five years? Pls fill the table

<b>Years / Period</b>	<b>Number of Areas Covered</b>
2005	
2006	
2007	
2008	
2009/2010	

ii. How has the changes affected performance of the company?

.....  
 .....

16. What is the proportion of Vodafone's market share in the telecommunication environment in Ghana?

a) 30%   b) 50 %   c) 70 %   d.) 80   e.) Any other pls specify

17. What is the target of Vodafone Ghana for the next 5- 10 years ?

a) 30%   b) 50 %   c) 70 %   d.) 80   e.) Any other pls specify

18. What is the quantity of products sold (in GH¢) for the past three years (Please complete the table)?

<b>Vodafone Products</b>	<b>Quantity Sold in GH¢</b>		
<b>Quantity Sold</b>	<b>2008</b>	<b>2009</b>	<b>2010</b>

Sim Cards			
Recharge Vouchers			
Computers			
USB Modems			

22. What are the challenges of the company in the performance of its operations?

.....  
 .....

23. What has been some of the administrative responses to these challenges in augmenting the company's operations?

.....  
 .....





## **APPENDIX II - QUESTIONNAIRE FOR CUSTOMERS**

### **INSTITUTE OF DISTANCE LEARNING**

### **COMMONWEALTH EXECUTIVE MASTERS IN PUBLIC ADMINISTRATION**

### **KNUST**

This questionnaire is intended to collect data towards the accomplishment of a master degree. The study topic is “**A SURVEY ON THE OPERATIONAL PERFORMANCE OF VODAONE GHANA COMPANY LIMITED IN THE GHANAIAN TELECOMMUNICATION INDUSTRY**”. Any information collected as part of this exercise will be used strictly for academic purposes

**NAME OF CUSTOMER:**

**AREA:** Accra ( ) Kumasi ( )

1. How long have you been using this network?

a. less than a year b. 1-2 years c. 3- 4 years d. more than 4 years e. Any other specify

ii. What informed the choice of this network?

.....  
.....

1. Which other mobile network to do use? Multiple choice is allowed

MTN( ) Tigo( ) Airtel ( ) Expresso ( )

ii. Is there any reason (s) for your use of this/these other network (s)?

.....  
.....

2. Which of these services have you been patronizing? (multiple answers can be ticked)

a. Fixed line user b. Mobile phone user c. Internet user

3. Are you satisfied with the quality of service provided by Vodafone Ghana in terms of

i. Network Coverage a. Yes b. no

ii. Clearness of calls a. yes b. no

- iii. Response to complains a. yes b. no
- iv. Call completion rates a. yes b. no
- v. Interconnectivity among networks a. yes b. no
- vi. Text messaging and delivery of text messages a. yes b. no

4. Have you ever made any complains about the services provided by Vodafone?

ii. If yes, what was your complain about ?

.....

.....

ii. How long did it take Vodafone to respond?

.....

.....

iii. Are you satisfied with the services provided by Vodafone? a. Yes b. No

Pls give reasons for the above.

.....

.....

5. Will you recommend others to subscribe to the services of Vodafone? a. Yes b. No

Please give reason(s) for the above.....

.....

6. Do you wish to change this network? a. Yes b. No

ii. Pls give reasons for the above.

.....

.....

### **APPENDIX III – QUESTIONNAIRE FOR RETAILERS / VENDORS**

**INSTITUTE OF DISTANCE LEARNING**

**COMMONWEALTH EXECUTIVE MASTERS IN PUBLIC ADMINISTRATION**

**KNUST**

This questionnaire is intended to collect data towards the accomplishment of a master degree. The study topic is “**A SURVEY ON THE OPERATIONAL PERFORMANCE OF VODAONE GHANA COMPANY LIMITED IN THE GHANAIAN TELECOMMUNICATION INDUSTRY**”. Any information collected as part of this exercise will be used strictly for academic purposes

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**NAME OF RETAILER:**

**AREA:** Accra ( ) Kumasi ( )

1. How long have you been in this retail business
  - a. Less than one year ( )
  - b. 1-3 years ( )
  - c. Above 3 years ( )
2. What products and do you sell?

.....

.....

.....

3. Which other mobile network company do you sell their products? (Multiple choice allowed)
  - a. MTN( )
  - b. Tigo( )
  - c. Airtel ( )
  - d. Expresso ( )
4. Do you have any difficulty getting Vodafone’s products to sell?  
Yes ( ) No ( )

- i. If yes, please specify

.....

.....

.....

- ii. What do you think should be done to address these difficulties?

.....

.....

.....

5. Do you receive complaint (s) from customers who buy any of Vodafone's products from you?

Yes ( ) No ( )

i. If yes, what are some of the complaints

.....  
.....  
.....

ii. What do you think can be done by the management of the company to address these complaints

.....  
.....  
.....

6. What proportion of your annual income is from the sale of Vodafone's sim cards and recharge vouchers?

a. 0 - 20 % ( ) b. 21 - 40 % ( ) c. 41 - 60 % ( ) d. 61 - 80 % ( ) e. 81 - 100 % ( )

7. What do you think can be done by the management of Vodafone to aid improve on the marketing of the products that you sell?

.....  
.....  
.....

8. Any comments to help improve on the company's operations?

.....  
.....  
.....