

**THE IMPACT OF COMPETITION ON CUSTOMER SERVICES IN THE
MOBILE PHONE INDUSTRY OF GHANA.
“A CASE STUDY OF MOBILE PHONE USERS AND OPERATORS IN THE
KUMASI METROPOLIS”.**

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DECLARATION

I hereby declare that this submission is my own work towards the Commonwealth Executive Masters 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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DEDICATION

To my lovely and caring wife Aisha Ahmed and my children Hosni Tuurosang Ahmed,
Haara Tamba Ahmed and Ha-alis Nuntaa Ahmed.

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Abstract

Global system for mobile communication (GSM) which has become the digital cellular technology of choice, has the fastest growth rate and represents the largest segment within mobile communication in Ghana. This phenomenon has led to intense competition among the five telecom giants on the Ghanaian market. The objective of this study was to establish the competitiveness of the mobile phone industry in Ghana and how their competitive behaviour affects customer service. In carrying out this research, a case study of mobile phone operators and users in the Kumasi metropolis was used. The major instrument used for collection of data were questionnaires along side interview and personal observation. Questionnaires were distributed to the five mobile phone operators and users of these mobile phone services in the Kumasi Metropolis. Data collected were analysed using SPSS and Microsoft Excel. Descriptive statistics were also used to summarise the information obtained from the analysis made. Findings from the study revealed that competition plays a significant role in customer services and customer satisfaction. Thus, in a competitive environment, the bargaining power of consumers is very high because of the low switching cost in the industry and there are attractive substitutes available to the buyer. Again, competition delivers innovation and benefits to consumers through lower prices, increased consumer choice and quality service delivery. Recommendations were made for policy considerations by both the mobile phone operators and the regulatory body such as the government and the National Communication Authority (NCA).

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CHAPTER ONE

GENERAL INTRODUCTION

1.0 Background of the study

The Telecom industry has contributed a great deal to Ghana's economy and has called for great investments that lead to a new era of progress. The sector is seeing extraordinary growth in Ghana. With increasing levels of mobile penetration, Ghana is fast evolving as one of the telecom sector's key investment prospects. Continued market liberalization is reshaping the regulatory environment, creating a more investment friendly climate in the telecom sector of Ghana. The sector is said to be growing at a very fast pace on yearly basis. This growth rate of telecom sector is mainly because of the mobile phone service providers' entry in the industry for the last few years. As of July 2009, the mobile phone subscribers are 9.54 million in Ghana and, in fact, still Ghana has the highest mobile phone penetration rate in the sub- region. National Communication Authority Report (2010). Hence, due to the huge potential in Ghana's mobile phone sector, the industry and customers are experiencing an intense competition, a battle for supremacy in the mobile phone industry, between all mobile phone service providers of Ghana.

Telecommunications vendors are rapidly acquiring significant product development capabilities as technology changes drive consumer demand. However, they continue to lag behind in understanding the customer. This has led to significant churn as products are developed and discarded in an attempt to retain existing customers and drive new business. Deregulation and increasing competition is forcing companies to move from traditional product-centric operations to consumer-centric operations. Customer demand for new and lower cost services are forcing telecommunications service providers to increase their efficiency as never before. Carlton (2007)

Telecommunications vendors have to analyze their customers' needs and tailor all their business processes in the value chain to effectively meet their customers' unique requirements and increasing demands. Implicit in this argument is the assumption that telecommunication companies have the ability to turn large volumes of data pertaining to their customers and services into actionable information. Business intelligence systems can significantly help in almost all aspects of the value chain to achieve this objective. Acutt and Elliot (2001). Recent developments in Industrial organization have emphasized the multidimensional nature of competition. For example excessive advertising and product differentiation, pre-emptive patenting and excessive innovation may mark competition.

All these strategies could be used to reduce the ability of rivals to compete successfully and some of the standard prescriptions to prevent anti-competitive behaviour can actually be detrimental to competition. The difficulty this concern expresses is compounded by the degree of dynamism that is inherent in telecommunication markets, a feature that it shares with information technology markets. Bismut and Sophie (2004). Often the most important stage of the competitive process is in the race to bring to the market new products. Once a firm succeeds in this sphere no amount of tinkering with the market structure or pricing decisions, short of breaking up the firm, will provide any succor to the competing firms. They will have to devote their energies to producing rival products, which erode the market power of the successful firm. Thus both the regulator and the competition authority will have to keep abreast of new developments in industrial

organization and market developments. It may be the case that developing new tools for analysis may be better served by the competition authority, while the regulator may be current in market developments. The need for close cooperation between regulator and competition authority is again emphasised by such a possibility.

The development of competition is marked by the interplay of a number of forces. Strategies of telecommunication companies with regard to pricing, entry, brand building, mergers and takeovers, innovations in marketing and new product launch have obvious effects on competition. However, the number and impact of institutions that affect the telecommunications sector is also vitally important. The obvious contenders for this role are the sectoral regulator, the parent ministry, the specialised appellate body and the competition authority. National Telecommunications Policy (2005). Often, though, the government as a whole and other Ministries such as Communication, Finance and Environment also get into the picture. It is here that the advocacy role of the competition authority finds prominence. It appears that the government, currently, does not have a competition policy. Economic reforms are being carried out because the inefficiencies of the command and control regime have become unbearable. The introduction of market forces and competition is happening at different rates in different sectors according to the predilections of different ministers and the political situation on the ground. There is no common view on competition and the Competition Authority could try to articulate one. Finally, the legal system is of utmost importance, particularly in the early stages where the rules under which the market is to operate is still being worked out. Educating the judicial system in the ways of market economics is a challenge which the Competition Authority has made some inroads into.

1.1 Problem Statement

As a result of the keen competition in the Ghanaian telecommunication industry, players in the industry are continuously initiating strategies to build long term profitable relationship with customers and to achieve customer loyalty. As operators in the communication industry seek for ways to improve upon the quality of their services, increase their customer base and retain their customers, competition has become stiffer among them. Selorm (2006). A typical telecommunications company has a huge customer base and varied product offerings.

Many telecommunication companies will also service various markets across geographies ranging from local firms serving a combination of urban and rural communities to international vendors serving customers of different nationalities and lifestyles. Telecom companies will have to effectively interact with customers and design suitable offerings, and fully utilize the potential of business intelligence solutions. The insight gained must then be applied to developing new products and services to meet the ever-changing needs of existing customers and to attract new customers. The ever-shrinking margins caused by increased competition mean that telecommunication service providers will have to seek innovative ways to minimize the cost of implementing effective solutions. Selorm (2006). The study therefore seeks to investigate how mobile phone service providers in Ghana are engaged in competition and how this affects customer services.

1.2 Objectives of the study

This study is to establish the competitiveness of the mobile phone industry in Ghana and how their competitive behavior affects customer service. The study therefore sets out to achieve the the following objectives:

1. To identify the level of competition and the target groups in the mobile phone industry.
2. To identify the tools of competition in the mobile phone industry
3. To evaluate the effects of competition in the mobile phone industry in the past and present.

1.3 Research Questions

To achieve these objectives, the following questions will need to be answered:

1. What are the market structures (trends and entry requirements) of the cell phone companies that allow for effective competition in Ghana?
2. What are the tools of competition in the mobile phone industry?
3. How does the consumer behavior encourage competition among mobile phone companies in Ghana?
4. How does competition affects customer service in the mobile phone industry in Ghana

1.4 Significance of the Study

It is sometimes assumed that a market is competitive if it contains multiple competitors. However, the mere presence or absence of multiple firms does not determine whether there is competition or the benefits of true competition are being achieved. This study is intended to establish the competitiveness of mobile phone service providers in Ghana and how their activities benefit the consumer and the country in general. The mobile service companies could use the result to formulate suitable policies that will enable them capture more of the market or increase their customer base thereby increasing revenue. The Ghanaian Government also stands to benefit from these increased revenues in the form of increased taxes. Government on the other hand could use it as a reference document in formulating policies of regulatory or deregulating telecommunication and finally, academicians could use it as starting point for further research.

1.5 Scope Of study

The scope of the study includes the competitiveness of the mobile phone industry and the tools being used in competition particularly in their business operations in Kumasi metropolis. The researcher chose Kumasi because of the nearness of source.

1.6 Limitations of the Study

There was not enough documented information on mobile phone operators in Kumasi metropolis. Mobile phone service providers are not prepared to release information for fear of getting into the hands of their competitors. To them, their rivals could capitalize on such information to compete with them. The most serious setback that confronted the writer in carrying out this work was inadequate finance. Inadequate financial resources made it difficult to cover most customers in all corners of the Metropolis which would

have been ideal for drawing up more reliable conclusions. One could not conclude without mentioning time constrain as this programme was undertaken on a part-time basis.

1.7 Methodology

The study investigated the activities of mobile phone service providers in the Kumasi Metropolis, using both primary and secondary data. The primary data was obtained by administering questionnaires to the staff, subscribers, and agents of these companies while the secondary data was obtained from the websites of the mobile service providers, in-house journals, the National Communication Authority (NCA), Ministry of communications etc,

1.8 Organisation of the Study

The study has been divided into five chapters. Chapter one is mainly concerned with the introduction to the study. It includes the background of the study, statement of the problem, objectives of the study, research questions, significance of the study, the scope, research limitations, methodology and plan of work. Chapter two concentrates on review of related literature. This is a critical appraisal of both the Empirical and Theoretical literature review of other people's works in relation to competition in the mobile service sub-sector. This would be based on the meaning of competition, nature of competition in the industry, customer service and its implication in the telephone industry, the impact of competition on customer service, the strategies for competition, the need to improve on customer service and the effects of competition. Chapter three is the methodology adopted in data collection and analysis. It explains in detail the various methodological approaches used in this study. It includes the research design, the population, sample and sampling methods, data collection and summary of statistical methods used in this study. Chapter four is the research findings, analysis and discussion of the results. It consists of data presentation and discussion of results to answer the research questions based on customer profitability, customer lifetime value, customer attraction, target marketing, campaign analysis and cross-selling. Chapter five gives a summary of the findings, conclusions of the study and recommendations for use and further studies.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

Competition is an increasingly important theme in telecommunications policy. It has been credited with expanding services, lowering prices, and stimulating innovation. Jamison et al. (2009). However, competition can raise difficult challenges for telecommunications policy makers and regulators. One of these challenges is determining to what degree market forces are disciplining service providers so that regulation can relax its direct control of prices, services, and investment decisions. Regulators in developing and developed countries alike have faced this challenge. Indeed, it has been central to recent proposals for reforming telecommunications regulation in the European Union and to merger analysis in the Caribbean, to name a few.

In Sub-Sahara Africa, and for that matter Ghana, communication plays a crucial role in the economic lives of the people. Communication is indeed one of the services crucial to the growth and success of the economy of every country.

This is one major reason why the industry is growing rapidly in the World, Ghana not an exception. According to the National Communications Authority Report (NCA report 2009), until 1988 the only telecommunication network operational in Ghana was Ghana Telecommunications Company Ltd (GT). As part of the Accelerated Development Plan (ADP) 1994-2000 reform program, Ghana Telecom was incorporated on June 16, 1995 as a successor to the telecommunications division of Ghana Posts and Telecommunications Corporation (GPTC). This was to enable the telecommunications division to function as a commercially viable entity. The GPTC was established as a public corporation in 1974, and until October 1995, had been responsible for operating the Nation's telecommunications and licensing of telecom services. NCA report (2009) Ghana Telecommunication Company Ltd provides Fixed – Lines, and payphone services. On 20th February 1997, Ghana Telecom was officially privatized to Telekom Malaysia Berhard with full management control. At this stage GSM Mobile Phone Services were added to the fixed line services. This was launched in September 2000. Subsequently the government handed operations of the company to Telenor Management Partner (TMP), a Norwegian Company. But this contract was abrogated by the Government of Ghana in 2007. And on July 3, 2008, a sale of 70% share to Vodafone was announced. The purpose of this sale was to make the company more profitable.

The second national operator, WESTEL, was licensed in 1998 to provide 50,000 fixed lines over a 5-year period in direct competition to Ghana Telecom. In 2008 WESTEL was acquired by CelTell, a subsidiary of Kuwait's Mobile Telecommunications Co. (Zain), the second largest Arab telecom firm by market value, with 25% of holding by the Ghana government. NCA report (2009). However, WESTEL could not compete effectively with Ghana Telecom as this made it possible for telecom to monopolize the market. Trade liberalization and diversification paved the way for most investors. Hence, the entrance of the numerous communication companies such as Millicom Ghana Limited (Tigo), Scancom Ghana Limited (MTN), Kasapa Telecom (Expresso) Limited and Globacom Ltd which is yet to launch its services in Ghana. This therefore brings fierce rivalry in the Telecommunication Industry in Ghana.

Millicom Ghana Limited, operators of Tigo cellular phone services, is a subsidiary of Millicom International Cellular S.A (“MIC”) UK/Luxembourg, a leading global operator of cellular telephony services with several investments across the world. NCA report (2009). The company started its operations in 1991 and was the first cellular network operator in Ghana. Millicom Ghana uses the ETAC system, and it had over 22 000 subscribers in 1998 with a market share of above 70 per cent of the mobile market. And in 2002 Millicom Ghana introduced its GSM service under the brand name MOBITEL which was an analogue service. This was improved to digital under the name Buzz. This trendy lifestyle image offered very exciting services to numerous subscribers. Millicom Ghana Ltd has, over the years, been able to maintain a fast rate of subscriber and revenue growth and a very high quality of service, acclaimed by most users as being second to none. In 2006, Tigo was launched in Ghana to replace the old national brand Buzz with a new international brand. Currently Tigo network coverage reaches all the ten regions in Ghana and it is fast expanding to rural areas. Available at www.tigo.gh.com assessed on 4/10/2011

Scancom Ghana Ltd (MTN) started operating in October 1996 using GSM 900 technology as Spacefone, with 15 sites and equipment from Ericsson. The network provides new services and wider coverage throughout the whole country. The company operated as Spacefone then to Areeba and in 2006 it was taken over by Mobile Telecommunication Network Group (MTN) and now its name is MTN Ghana; it has expanded greatly its network coverage. Available at www.mtn.gh.com assessed on 4/10/2011

Kasapa Telecom Limited – a subsidiary of Hutchison Whampoa Group – was established in 1998, “Hutchison Whampoa Group acquired 80% of Celltel Limited in 1997, and in 2003, changed the brand to Kasapa and the company name to Kasapa Telecom Limited. In January 2005, Kasapa became a wholly-owned subsidiary of Hutchison Telecom .Kasapa means ‘good talk’ in Twi, the most widely – spoken local language in Ghana.” Available at (http://www.htil.com/eng/business/ghana_history.htm) assessed on 20/10/2011. The company offers mobile, home and business voice and data service on its network, expanding throughout Ghana.

Globacom Limited or (Glo) is a Nigerian telecommunication company with its head quarters in Lagos, Nigeria. Glo is a privately owned telecommunication company that started operations on the 29th August 2003. It is owned by the Mike Adenugu Group which also consists of Equatorial Trust Bank. (ETB), Conoil PLC, petroleum marketing Company and Conoil Producing, a crude exploration Company. Glo is the first sole Company to build an eight hundred million dollar high capacity fibre-optic cable known as Glo-1. It is the first successful submarine from the united Kingdom to Nigeria and it has the potential to decrease telecommunication cost and provide excess bandwidth to all the countries connected to the cable.

It operates in four countries in West Africa, namely Nigeria, Republic of Benin, La cote d’ Ivoire and Ghana. It was born in Nigeria on August 2003, May 2008 Glo mobile was launched in Ghana, even though it is currently the main sponsor of the Ghanaian premier

league, it is yet to fully launch its services and operations in the country. Available at <http://www.wikipedia.org/wiki/globacom> assessed on 10/9/2011

The purpose of this chapter is to examine appropriate methods for evaluating when telecommunications markets are effectively competitive, which means that market forces are disciplining operators. More specifically, effective competition means that service providers, either jointly or individually, are unable to sustain prices at a level that provides excess profits. There are many methods of analyzing competition and market power; however special considerations are essential for analysis of telecommunications competition given two factors that are critical in the case considered: unique aspects of the telecommunications industry such as network effects and interconnection, and the role of regulatory intervention. We cover these in this study.

The first section of the chapter will develop the outlines of a theoretical approach explaining competition. It starts with the definition of competition and continues with competition in the telecommunication industry. A meta-theoretical framework for understanding the evolution of strategies for competition follows and ends with effects of competition. This will set the stage for the subsequent sections of the chapter that apply the framework to the historical sweep of theoretical developments in the study of competition in business organizations. The starting point for this analysis of the impact of competition on customer service begins with the rise of liberalization of the telecommunication industry.

The second phase involves the development of scientific management to survival in a competitive atmosphere and a formal systematic method for managing organizational competition among firms. This will embrace a clear understanding of what customer service is, customer service in the telecommunication industry, impact of competition on customer service and why the need for improving customer service. The final section of the chapter considers the most recent literature aimed at further conceptualizing various modes of organizational competition.

2.1 Definition of Competition

Generally people use the term competition in reference to markets in which firms must compete strongly for sales. Each firm attempts to gain customers at the expense of other firms, and through their competition, market price and quality are affected to the benefit of those customers. The extreme case for competition is called perfect competition, which is the situation in which no individual supplier in the market can individually influence the market price (i.e., each firm is a price taker) and each supplier can sell however much it wants at the prevailing market price. While the telecommunications industry almost never fits this perfectly competitive market paradigm, it is possible for the telecommunications industry to exhibit efficient, or effective, competition, which is often defined as the situation where:

1. Buyers have access to alternative sellers for the products they desire (or for reasonable substitutes) at prices they are willing to pay,

2. Sellers have access to buyers for their products without undue hindrance or restraint from other firms, interest groups, government agencies, or existing laws or regulations,
3. The market price of a product is determined by the interaction of consumers and firms. No single consumer or firm (or group of consumers or firms) can determine, or unduly influence, the level of the price, and
4. Differences in prices charged by different firms (and paid by different consumers) reflect only differences in cost or product quality/attributes.

In such a market, suppliers are able to freely enter and exit, there are a large number of firms, the market price reflects marginal costs, and the service quality and services provided are determined by market forces. The establishment of effective competition therefore should result in the presence of these characteristics.

Traditionally it was impossible to perceive competitive in so called natural monopoly situations (Mason and Valletti 2001; Armstrong 1997). However nowadays competition is beginning to be the norm and in the telecommunications industry, it has been made possible mainly due to technological advancement (Laffont and Tirole 2000; Ordovery 2000). Competition finds its roots in the contestable theory literature and the merits are numerous (OfTel 1998; Lehr and Glassman 2001; IRG 2001; Acutt and Elliott 2001). Effective Competition can be defined as “the persistent absence of players with market power. In an effectively competitive market users are better off, because they are more likely to be provided a greater variety of products and/or services of lower price and higher quality than they could be provided in a non-competitive market” IRG (2001) If competition becomes effective and established, subscribers will have a choice of local network, there would be different network technologies and the incumbent operator will become under pressure to reduce its local network costs, introduce innovative services and several attractive packages.

The threat of competition in developing countries has had an impact on incumbent monopolies. It has been shown that if liberalisation is imminent in the next three years, there is a strong statistical correlation between the threat of competition and the increasing rates of teledensity growth (Petrazzini 1996).

Competition can take various forms, such as competition for outputs, inputs, franchises and outright takeovers. It is useful to classify the telecommunications services in different categories and then assess where they lie on the competition continuum. The categories identified are: local fixed network operation, local mobile network operation¹⁰, long-distance (international) network operation and service provision over combinations of the above networks (Armstrong 1997). Regarding service provision over fixed networks, there are two ways in which competition can be achieved:

- (i). An entrant can install new network and provide services directly. Each user should have a wire or a microwave link to the network.
- (ii). The entrant can use the infrastructure of the incumbent to provide indirect access provision mainly for long-distance and international calls. Generally, subscribers connected to the incumbent network have to dial a number to get onto the network of the entrant.

2.2 Nature of Competition in the telecommunication industry

There are now more than a dozen different ways for consumers to make a simple telephone call, choosing a different service provider and technology for practically every call:

- Wireline (local, long distance, calling cards, dial-around, collect)
- Mobile wireless (cellular, PCS, prepaid)
- Fixed wireless (MMDS, LMDS, 700 Mhz, satellite)
- Voice over Internet Protocol

Additional ways to communicate include text-messaging, email, instant-messaging, webcams and more. Television and interactive video are also defined as telecommunications services.

For each of these choices, there are multiple service providers in any given market. Even in the most rural Ghanaian village, there are landline, wireless, cable television, satellite and Internet service providers competing for consumers' communications business. Cable companies now offer phone service; telephone companies are rolling out video; and wireless carriers are deploying broadband.

Measuring the extent of competition in telecommunications markets is a difficult task. The problem lies in both in the metrics to be used and the market segments to be looked at. As noted earlier market segmentation can be done on the basis of products or geographically or both. Segmentation on the basis of products is difficult without knowing the substitution possibilities between products. If two products are very good substitutes for each other then there is no point in treating them as different. Increasing convergence in telecommunications technologies are making some product divisions redundant. A broader definition of the market will automatically lead to a larger number of firms being included and that could throw up measures that overstate the amount of competition.

2.3 Nature of Competition in the Ghanaian Telecommunications Industry.

Competition in the cellular industry is mainly between Scancom Gh Ltd,(MTN),Millicom Gh. (Tigo),Vodafone Ghana, Kasapa (Expresso), and Zain (Airtel Ghana).

Even though it is yet to start operation in Ghana after launching in May 2008, Glo is expected to add up to make the competition even keener.

These players each try to attract more subscribers to hook on to its services by offering mouthwatering promotional packages. Examples of these include Free Airtime, Free Night Calls. Zone Discounts and so on.

By these promotional packages and many other enticement services being offered by Telecom operators, customers have choices to make, depending on which provider's services meet their expectations.

According to figures published by the National Communications Authority (NCA), Ghana's mobile phone subscriber base passed the 7 million mark at the end of 2007. The country recorded a quarterly growth of 8.4% in the last three months of the year, boosting the total number of mobile users to 7.604 million at year end. MTN Ghana was market leader with 4.016 million subscribers, ahead of Millicom Ghana (Tigo) with 2.023 million. GT ONE touch and Kasapa Telecom took third and fourth place respectively, 1.276 million and 289,066 subscribers. Tigo topped the list in terms of net subscriber additions in quarter four, signing a net 426,640 new users, compared with 143,743 for MTN and 21,456 for Kasapa Telecom. Ghana Telecom's arm ONE touch recorded a net loss of 4,493 users in the last three months of the year, with a proportion of the net decline being attributed with subscribers having their lines cut or deactivated from the network (Telecom paper, Monday, 25th February 2008).

Millicom Ghana Limited, according to Telecom paper operators of Tigo GSM network, announced that its subscriber levels had crossed the two million mark from 1.2 million at the beginning of 2007. The over 800,000 increase in the number of subscribers recorded in 2007 alone, represented 66% increase.

2.4 Strategies for competition

Competition is an increasingly important theme in telecommunications policy. It has been credited with expanding services, lowering prices, and stimulating innovation. Jamison et al. (2009) But competition can raise difficult challenges for telecommunications policy makers and regulators. One of these challenges is determining the optimal mix of market and regulatory involvement in determination of prices, services, and investment decisions.

The telecommunications policies in Ghana are based on the premise that competition will be prevalent. External conditions of potential competition are envisaged whereby firms from outside the market are anticipated to try to enter in the future hence influencing the choices by firms inside the market. There is a distinction between internal conditions of potential competition and external conditions of potential competition (Shepherd 1984). The former encompasses the extent of actual competition and monopoly among existing firms – non-existent in the fixed telephony.

The revised methodology for assessing the extent of competition is adopted as a framework in an attempt to assess the viability of competition in the market in Ghana (Ofel 1998). Ofel uses a simple two- stage process:

Stage 1 Product Market Definition

Main Issues

- Supply-side substitution
- Geographic Scope of the market

Stage 2 Analysis of extent of Competition

Main Issues

- Structure of Market
- Behaviour of firms
- Barriers of entry

It is noted that these two processes are not separate. Demand-side substitution considers the availability of alternatives to the subscribers. The concept of 'hypothetical monopolist' is based on whether the subscriber can switch without incurring any significant costs referred to as switching costs below.

Supply-side substitution focuses the ability of a firm to change its provision of services following a change in price. The geographical scope of the market is defined in terms of the products or services as well as in terms of a particular geographic area.

In Stage 2, given the absence of a superior measure of the extent of competition, market share is often used as an indicator. However it is recognised that this measure only provides a partial picture and it is silent regarding the contestability of the market. It is important to obtain an idea of the existence of barriers to entry to understand the degree to which the actions of incumbents are affected by the threat of new entry. This simple equation shows the barriers to entry.

$$\text{Rate of entry} = a0 + a1 \text{ Growth in industry} + a2 \text{ Costs of operation} + a3 \text{ Sunk cost} + a4 \text{ excess capacity} \quad (1)$$

$$\text{i.e.} \quad \text{Rate of entry} = a0 + a1 + a2 + a3 + a4$$

where:

$a0$ = initial entry point

$a1$ = growth in industry

$a2$ = cost of operation

$a3$ = sunk cost

$a4$ = excess capacity

Sunk costs can be used as a proxy to assess the barriers to exit. The sunk costs would determine the ease with which the firm can exit the market. The extent of physical capital would depend on the forms of competition. The non-physical forms of sunk cost may be larger with the given technological state.

Cost of operation will determine the profitability of entering the market. It depends on the interconnection charges that will constitute the biggest cost, the final prices that the operators are able to charge depending on the prevailing regulation.

(Sunk costs and costs of operation are probably collinear but this is just a simplistic model to try and assess how realistic it is to assume the concretization of competition).

Growth in industry refers to the prospects in growth in demand. It is assumed that external changes in technological development would lead to changes in the telecommunications industry. Growth in demand seems intuitively unlikely as it depends on a number of factors. Another important consideration in the telecommunications market is the existence of excess capacity in the market and the ease of access of such capacity.

$$\text{Growth in industry} = b0 + b1 \text{ switching costs} + b2 \text{ difference in prices amongst competitors} + b3 \text{ external factors} + b4 \text{ penetration rate} + b5 \text{ regulation} + b6 \text{ other factors.} \quad (2)$$

$$\text{i.e.} \quad \text{Growth in Industry} = b0 + b1 + b2 + b3 + b4 + b5 + b6$$

where:

b0 = initial level of growth in industry
b1 = switching cost
b2 = differences in prices among competitors
b3 = external factors
b4 = penetration rate
b5 = regulation
b6 = other factors

Switching costs refer to the costs of changing operators. This obviously depends on the form of competition – whether the subscriber stays with the incumbent and dial a number to gain access to the competitor’s network, whether the subscriber actually needs to invest in physical equipment such as a hand set. It also depends on the time involved in shopping round several competitors. These costs must be at minimum so that subscribers are induced to switch operator. Armstrong (1998).

Another important consideration is whether the subscriber would be able to keep his number hence making number portability an important variable. On analysing the UK market after over fifteen years of the liberalisation of the market, it can be inferred that in Ghana, we can expect one firm to dominate the market given the limited domestic market. In a study on developing countries, it is emphasised that “In many cases, new entrants have had difficulties in taking any significant share of the market, let alone growing large enough to gain market power and become a serious threat to the incumbent” Petrazzini (1996)

Malaysia introduced competition in long-distance and international calls but none of the entrants could gain a significant market share. The trend in other countries can be tentatively used to predict the case in Ghana.

Armstrong argued that the technological features of local networks do not support the premise that local competition will involve more than two or three firms in the residential markets whereas the long-distance and international markets tend to be more competitive. Armstrong (1997).

In Ghana because of the smallness of the country, in the recent tariff rebalancing exercise, there is no longer any distinction between local and national calls. The rationale behind this decision is that the cost of provision of a local call is not very different from that of a national call as a result of full digitalization of networks. This elimination of national calls eliminates one potential competitive area that has been able to attract new entrants in countries that have liberalised their networks.

2.5 Effects of Competition

One sign of the growth burst of the sector in Ghana and its self-confidence are the media advertisements of the various companies. As they fight for market share, that battle is being conducted over the airwaves and newsprint. The mobile phone and services advertisements are in the media, on billboards and everywhere else imaginable. The quality and aggressiveness of the advertising campaigns indicates the level of effort to gain market share. It shows a fierce battle for supremacy going on between the players of the cell phone sector in Ghana.

Economists generally agreed that, when feasible, competition offers the best way to organize economic activity. Competition promotes economic efficiency, assuring that costs

are minimized and resources are directed to their highest value uses. Firms are compelled to innovate to lower costs and to improve quality and product choice in a continuing quest to attract consumers and improve efficiency. Prices are driven toward costs, thereby eliminating excess profits. In the absence of entry barriers (which includes the costs of adjusting capacity), dynamic performance is also efficient as aggregate industry capacity adjusts to accommodate fluctuations in consumer demand. NCA Report (2009)

In contrast, monopoly markets are inefficient. The monopolist sets prices to maximize profits, which in the absence of competition, means that prices exceed economic costs. These higher prices result in a deadweight loss. Capacity and investment are limited because prices are too high. Moreover, the absence of competition reduces pressure on the firm to improve quality or eliminate cost inefficiencies.

Consumers have less choice to purchase a more limited range of lower quality goods and services. While the static deadweight costs of monopoly may be substantial, its dynamic implications are likely to be far worse, especially in the presence of technological progress and changing market conditions. The monopolist has a natural incentive to seek to maintain its market power and this distorts its investment incentives.

Bargaining power of customers: The bargaining power of customers in this case is very high because of the low switching cost in the industry. There are attractive substitutes available to the buyer even in the form of keeping the same cell phone number but changing the service provider. It makes very difficult for the market players to retain their customers. Brand loyalty therefore can only be created through superior marketing campaigns and service. Lee (2009)

Bargaining power of suppliers: This is a type of industry where, at least in present times, the bargaining power of suppliers is at the low level because of the nature of inputs for the business. Moreover, with the deregulated and friendly environment given by the government of Ghana, the industry has become more competitive and quality services driven.

Threat of substitute products: Although the cell phone subscribers are more now, still the threat of substitute products is high for the industry. Buyer inclination to substitute and price-performance trade off are the most important to consider in determining the threat of substitutes. Actually, just the subscription of cell phone service is not enough for a company to get optimal profits but the real challenges is that how many existing customers are using the service regularly for incoming as well as outgoing calls. The quality of service is the parameter of strength in telecommunication industry. So, the threat of new entrants is low. Though the growth and potential of the sector look very attractive, still it is very difficult to take risk for a new investor because the penetration in the market would be very difficult. Garbacz et al (2007)

Competitive rivalry: When the competition is fierce, obviously the competitive rivalry will be at the highest level. The very high level of competitive rivalry among the major players of the cell phone sector is clearly observable. Just look at the advertisement campaigns of the rivals and you can see how intense the competition is. It looks like a battle for supremacy going on between the rivals. All means of attracting new and potential switching customers are being used by all the competitors to gain as much market share as they can. Exit barriers, industry growth, product differences, brand identity, and diversity of rivals are the main reasons of very high competitive rivalry in this case. Independent Regulatory Group – IRG (2007)

If effective competition can be established, however, then market forces can substitute for direct regulatory oversight to discipline industry behavior. Of course, you cannot have competition without competitors—which means there has to be successful and sustainable market entry. The incumbent will naturally oppose such entry and so asymmetric regulation is required if a transition to competition is to be realized.

Consumer choice will expand because customers will be able to purchase service from multiple providers, and providers will be driven to improve quality and to offer new bundles of services to differentiate themselves. Most importantly, competition will help fuel innovation that provides the impetus for continued growth and still larger benefits in the future.

Competition will lower prices, resulting in increased demand, which will induce additional investments in aggregate industry capacity. Competition also fuels incentives to innovate as firms seek to lower costs and to differentiate their products in order to improve margins. Competition, therefore, encourages faster network modernization. There is ample evidence that regulatory liberalization and increased competition encourage more rapid telecommunications infrastructure modernization.

Direct evidence of the positive effect is provided by studies by Sappington and Ai (2001), who found that competition, accentuates the positive effect of incentive-based regulation on network modernization investments.

Additional empirical evidence that liberalization and competition lower prices, improve productivity, increase teledensity, and improve service quality is provided by cross-national studies from Boyland and Nicoletti (2000).

2.6 Customer Service

Customers and business managers alike like to talk about what good customer service is and what it is not. This definition by the Association of Canadian Advertisers (ACA) Group sums up what excellent customer service is beautifully: "excellent customer service (is) the ability of an organization to constantly and consistently exceed the customer's expectations." Keaveney (2005)

Accepting this definition means expanding our thinking about customer service; if we're going to consistently exceed customers' expectations, we have to recognize that every aspect of our business has an impact on customer service, not just those aspects of our business that involve face-to-face customer contact. Improving customer service involves making a commitment to learning what our customers' needs and wants are, and developing action plans that implement customer friendly processes

It's simply because customers are turning their backs to businesses that do not deliver value. And good customer service adds value! There's no way around it. No shortcuts. Customers demand value for money, or they are out of the door. Customer service is not customer satisfaction as reported by customer satisfaction surveys. Customer service, like a brand, is what the customer perceives and remembers of the service they received. What a customer perceives is the service they receive is not necessarily the service they actually receive. Keaveney (2005)

Research has identified a core set of attributes and actions of successful customer service organizations within the market economy. Regardless of whether these organizations provide goods or services, they recognize that satisfied customers are the key to their success. They focus on achieving 100 percent customer satisfaction and embed this

priority throughout the organization from top to bottom with a solid framework of policies, practices and information.

Achieving high levels of customer satisfaction requires that organizations continually monitor and examine the experiences, opinions, and suggestions of their customers and people who are potential customers. Improving service quality to meet customers' standards is an ongoing part of doing business. In this way, customers drive the market and the organization. Solomon (2006).

At the same time that organizations act to attract and satisfy customers, the customers themselves exercise ultimate influence. Their satisfaction depends on both their expectations and their treatment. Through their choices, customers decide which organizations survive and thrive, determine what goods and services are available, and shape how they are provided. In addition to using their purchasing power, informed consumers can shape the marketplace by communicating their preferences and standards to organizations that are poised to listen and respond. Solomon (2006).

Several published studies reveal that the mood of the customer has a significant impact on the perception of the service received. For example, if a customer has been waiting for a long time in a check-in queue, the perception of the friendliness of the person at the check-in desk deteriorates. What a customer remembers about a service is not just dependent on the usual suspects of first and last impressions. It is dependent on the "moments of truth", a phrase coined by Jan Carlzon (2007) from Scandinavian Airlines. For an organisation in the service industry, there may be twenty or thirty moments of truth in its provision of service. A moment of truth is when an interaction occurs between a customer and the service provider that can leave a lasting positive or negative impression on a customer. Moments of truth in the hospitality industry, for example, will undoubtedly include, but not be limited to, booking the room, check-in, check-out, dinner reservations, dinner ordering, dinner presentation, eating (quality and quantity of food) and laundry receipt. Understanding the moments of truth that are important to an organisation's customers by segment is the key to understanding what is good customer service. Completing customer satisfaction surveys is not a reliable way of determining moments of truth for two reasons.

Firstly, the design of most satisfaction surveys is usually poor and often carries misleading views as they do not ask a question which seeks to understand the importance of the particular services prior to the request for an opinion.

The second reason why customer satisfaction surveys are unreliable is that even if they are designed well, satisfaction surveys tend to condition the recipients to give a response. Rossat, Lassen and Ruta (1999), noted that customer retention levels of around forty percent correlated to an average rating of "satisfied" and did not reach 80% until the average rating reached very satisfied.

Relying on customer satisfaction surveys to determine what good customer service is and how well an organisation has performed is risky at best. Understanding what good customer service is begins with mapping a generic customer's experience and determining the moments of truth. The employees of an organisation are also a good source of information to determine the moments of truth. Employees see firsthand the body language, the tone and pace of voice and the circumstances that surveys will never see and that customers will sometimes not realise is happening.

What segmentation is used is naturally dependent on the nature of the organisation, its goal and the level of data it can collect. However, its ability to detect a particular segment and offer a differentiated service during the day-to-day course of business is the most important determinant of the nature and level of segmentation to use. Determining, at each moment of truth, for each segment, what impacts on the customer's perception and memory of the service is the key to providing good service. For example, in the hospitality industry, research by Liljander and Mattson (2002), revealed three personal factors (and the general environment) impact on perception of service. The personal factors are:

- The level of concern shown for the individual customer
- The level of friendliness shown towards the customer
- The level of civility shown towards the customer

Having someone wait in line at check-in can cause a negative impression. Showing genuine concern at the length of their wait and helping to make the next interaction after check-in easy in a friendly and helpful manner can reduce that negative impact to zero.

By understanding what each target segment requires at the moments of truth relevant to the segment enables organisations to develop and execute plans to improve the perception and the memory of the interactions that are important. Customers are then more likely to be genuinely satisfied and return usually, forever! And if that customer feels bad about how he or she has been treated, she will tell her friends about it. Or even worse, drop a note in a user group or other forum that is heavily trafficked.

In general Customer service is not merely customer relations or how nice frontline workers are to customers. Rather, satisfying or even delighting customers is the goal of excellent customer service. Because customers for different types of services have different needs, customer service strategies will differ and must be tailored to the target customer.

2.7 Customer Service in the telecommunication industry

The telecom industry no longer talks only about customer service — instead, it is addressing the broader topic of the customer experience, which includes not just the conversations between customer service representatives and customers when something goes wrong, but the full range of customer contact from when a service is ordered to when it is delivered.

Increased investment is what will be required, for many reasons. Chief among them is the realities that, as service providers try to offer more services and more complex services, like they are doing today, customer service requirements increase exponentially. It is easier for customers to get confused, there are more things that can break and it is harder for customers to decipher competitive offers and determine what they want.

After an era in which customer service seemed to decline, and handling calls quickly and cheaply was the goal, the customer experience is getting a much-needed makeover. And since we are all customers at some time that can only be good news

In the world today, the use of mobile phone services can not be over emphasized. This shows the extent to which service providers are relied upon. And yet most people do not feel warm when they think about their cell phone companies. When compared to other industries telecom suffers from lower customer engagement scores, higher incidence of customer problems, and slower problem recovery (data available in the People Metrics 2009 Most Engaged Customers Report).

The sheer size of many telecom companies is partially to blame. As these companies innovate to keep up with their customers' social networking habits, telecom customer service interactions have become increasingly scattered and inconsistent. Today, telecom employees from various departments interact with customers using multiple forms of media. In such an environment, consistency is elusive, and must be methodically pursued. In his article, "Building an Effective Total Customer Experience Model for Telecom Operators," Sampson Lee (2009) investigates how telecom companies can maximize efficiency and reach organizational goals by focusing on the Total Customer Experience (TCE). Lee begins with an overview of the obstacles facing the telecom industry;

- Average revenue per user per year is decreasing.
- Telecom customer retention is elusive as telecom customers are likely to switch companies at the drop of a hat despite sophisticated loyalty programs.
- The telecom brands are "big and empty" as Lee says. Customers feel no emotional connection to one brand over another.
- Overall telecom companies deliver inconsistent customer experience across departments or channels.

To tackle these problems, Lee suggests that telecom companies systematically map out every possible touch point with customers, in an effort to understand how customers interact with different parts of the company. This customer-centric model assumes that customers see a single brand, rather than specific employees or departments. Every interaction with a representative from your company contributes to a customer's picture of your brand. An email from a sales executive is lumped together with a troubleshooting call handled by a call center representative. The TCE approach aims to list, analyze, and

prioritize touch points to ensure a consistent customer experience across all segments of a company.

Lee emphasizes the importance of figuring out which touch points have the greatest impact on customer loyalty. In a world of limited corporate resources, it's pragmatic to spend more company resources on the most important, influential touch points. Which areas of your customer service program effect retention and customer referrals? Mr. Lee suggests diverting additional resources to those areas.

Using an integrated Customer Engagement Management (CEM) program can deliver a positive Total Customer Experience by gathering feedback from every customer interaction. By focusing on Customer Engagement, rather than mere customer satisfaction, you can measure a customers' emotional connection with your brand which will ultimately determine long-term loyalty.

2.8 Impact of competition on customer service

When we meet someone for the first time, we all generally make assumptions based on our first impressions of them. Our perception of a person and ultimately whether we are drawn to them or not, can have a massive impact on our relationship with them in the future. In the relationship between a consumer and a business, perception is no less important.

To consumers, a positive or negative perception of a business is likely to play heavily on whether the relationship is going to continue or falter. If a consumer does not feel he or she can trust the business for example, they are highly unlikely to want to keep purchasing from it. And if we also remember the age old adage that on average we tell five people about a good experience with a company, but tell 20 people about a bad one, getting the relationship right is key to future success. So for any business to grow and prosper, it needs to think carefully about the way it is perceived by its customers.

A number of factors can impact on how a company is viewed by its public. The level of service a customer experiences is absolutely key to their feelings towards it. Bad service, so easily delivered especially on a busy day when there are a hundred and one other things to consider, can be more damaging to a business than anything else.

For the consumer, the only time they get to form an opinion of the business is through contact with it, yet if they are dissatisfied by the way they are treated, the relationship will not last much longer. Of course, good service is highly influential in not only retaining a customer and encouraging them to continue purchasing from you, but also an active factor in getting them to recommend you to other potential customers.

Jan Carlzon, (2007) former President and CEO of the Scandinavian Airlines Group (SAS) once said "You cannot improve one thing by 1000% but you can improve 1000 little things by 1%". Customer service follows the same principle – truly delivering good service relies on a number of positive elements all working in unison. From simply smiling when answering the phone (to improve your inflection whilst letting the customer know you are happy to be taking their call) to investing in training, technology and infrastructure, every piece of the puzzle works towards creating a positive experience.

All these elements are easy to achieve, and they do not all have to be a strain on cash

flow or to take huge amounts of time, and yet can still drastically improve perceptions of your business. Let common sense prevail; make sure that maintaining a positive face to your customers is always top of the agenda. By managing perceptions you can encourage your customers to keep coming back, supporting the future development and growth of your business. A good customer service agent can have a tremendous impact on a business success ratio. When a customer or potential customer contacts your business, your business' reputation is placed in the hands of your customer service agent. How the agent handles a query or complaint affects how that person perceives your businesses performance. Word of mouth advertising is the best marketing tool a company can hope for. You can not put a price on a referral from a satisfied customer. It is likely a customer service agent made an impression that generated this type of referral. With the cost of advertising at an all time high, what would you offer an employee that continually generated business by impressing your customers so well they refer you in a casual conversation with colleagues.

Often times, the only knowledge a potential customer has on a company, is the information or service they receive when they contact the company for the very first time. First impressions can dictate if you get business from a potential customer, or keep the business of an existing one.

As a rule, the first stop a potential customer will make upon walking through the door is the customer service desk. The representative at the customer service department, that assists the potential customer can generate business or repel it.

Regardless if it's a customer service agent, or a regular employee acting on a customer's request, customer service is the one thing that dictates how a business is perceived. It is the single most important act in any business, it is the determining factor that enables a business to excel or determines if it will fail.

There is so much competition in the world of business today, companies are constantly striving to improve the odds that potential customers will choose their business over their competitors. The way a business services their customers directly determines who potential customers will go to, and who will be passed by. Since the beginning of time merchants have strived to outdo others in their field by finding ways to make their business stand out from the others.

Companies that focus on their customers needs and desires will ultimately soar higher up the success ladder than those who focus on fulfilling the minimum requirements from the job they perform. The over achievers in the business emporium lead the way for those entering their field to follow. Businesses will enlist marketing consultants, and pay outrageous salaries to ensure they offer the best products and services their fields have to offer. It is these companies that generate a higher demand from consumers than ever before. They will stop at nothing to soar to new heights in search of the latest and greatest merchandise the market has to offer their customers.

2.9 Why improve upon customer Service

Keeping customers satisfied is essential to building a successful, growing business. While

many companies work hard to increase sales, they may overlook the little things that keep customers happy and buying more. It is easier to accelerate your business by cultivating the customers you already have rather than constantly working to attract new customers. To take it to another level, when a company meets customer expectations, it is ensuring customer satisfaction. However, in this competitive marketplace when customers receive value or benefits beyond what they had expected, the company and the customer service representative has delighted the customer. A truly delighted customer will be more loyal to your company and products than even a satisfied customer.

seeking to delight ones customers, means that the business will benefit tremendously from incorporating the Customer Service Profile into the customer service policies of the organisation. As an investment in human capital, the Customer Service Profile can have a significantly positive impact on the compny's bottom line.

Fostering outstanding customer service is every employee's responsibility. Regardless of their position, every employee interacts with external or internal customers or both, and the impression they leave can make or break not only that sale but future sales as well.

It improves trust and information exchange. In the public sector, including child support offices, good customer service generates satisfied or delighted customers. Satisfied customers lead to increased compliance, improved information exchange, improved relationships, increased trust, and, potentially, decreased workloads or costs. For instance, police departments across the Nation have embraced the concept of community policing. Through community policing, police departments incorporate a customer focus as well as an attitude of partnership with customers, to increase satisfaction and trust and even reduce fear of crime in the community. Customers actually participate in addressing crime and disorder problems, thus reducing the workload on patrol officers.

It saves money and increases profit. In the private sector, good customer service leads to satisfied or delighted customers, which generates customer loyalty, which produces increased revenues and reduced costs. For example, during the early 1990s, IBM transformed itself into a customer-driven organization. From 1994–1999, customer satisfaction increased by 5.5 percent, revenue increased from \$63 billion to over \$80 billion, cost and expense savings equaled \$7 billion, and stock prices improved over 1,000 percent. Thompson, (2005).

With increased choice of telecom products and services, the bargaining power of buyers is rising. Let's face it; telephone and data services do not vary much, regardless of which companies are selling them. For the most part, basic services are treated as a commodity. This translates into customers seeking low prices from companies that offer reliable service. At the same time, buyer power can vary somewhat between market segments. While switching costs are relatively low for residential telecom customers, they can get higher for larger business customers, especially those that rely more on customized products and services.

Products and services from non-traditional telecom industries pose serious substitution threats. Cable TV and satellite operators now compete for buyers. The cable guys, with their own direct

lines into homes, offer broadband internet services, and satellite links can substitute for high-speed business networking needs. Railways and energy utility companies are laying miles of high-capacity telecom network alongside their own track and pipeline assets. Just as worrying for telecom operators is the internet: it is becoming a viable vehicle for cut-rate voice calls. Internet telephony could take a big bite out of telecom companies' core voice revenues.

Competition is "cut throat". The wave of industry deregulation together with the receptive capital markets of the late 1990s paved the way for a rush of new entrants. New technology is prompting a raft of substitute services. Nearly everybody already pays for phone services, so all competitors now must lure customers with lower prices and more exciting services. This tends to drive industry profitability down. In addition to low profits, the telecom industry suffers from high exit barriers, mainly due to its specialized equipment. Networks and billing systems cannot really be used for much else, and their swift obsolescence makes liquidation pretty difficult.

CHAPTER THREE METHODOLOGY

3.0 Introduction

This chapter discusses the methodology employed to achieve the objectives of the study. This research is a non-experimental exploratory study designed to determine the impact of competition on customer service in the mobile phone industry. It is also to recommend strategies for effective customer service delivery and efficient ways of customer retention in the Ghanaian mobile phone industry, using the case of mobile phone operators and subscribers in the Kumasi metropolis.

Research Method is simply a technique for collecting data. It can involve a specific instrument such as self completion questionnaire or a structured interview or participatory observation whereby the researcher listens to and watches others.

Kumekpor (2002). Research Methods can be and are associated with different kinds of Research Designs. The later represent a structure that guides the execution of a research method the analysis of the subsequent data. This chapter focuses on the methods and techniques through which the research was conducted. It is made up of the research design, population, sample and sampling techniques, data collection techniques and data analysis procedures.

3.1 Research Design

The study design adopted was descriptive and analytical sample survey. It was chosen in view of the fact that it is a small scale study of a relatively short duration and it involves a systematic collection and presentation of the information to give a clear picture of the effect of competition on customer service in the mobile phone service industry. It was aimed at getting relevant information related to the role of competition in the telecommunication sector.

The impact of competition in the mobile phone service industry were accessed to find their effects and efforts at minimising them on the consumer. Survey design as stated by Creswell (2004) is that which provides quantitative or numeric description of some fraction of the population which is the sample, the data collection process of asking questions of the people was adopted throughout the study.

3.2 Population

Population is basically, the universe of units from which the sample is to be selected. Kumekpor (2002). The term 'unit' is employed because it is not necessarily who are being sampled – the researcher may want to sample from a universe of nations, cities, regions, firms, etc. The targeted population of this study was the staff and management of cell phone companies and their customers in the Kumasi metropolis. In all a population size of about 1,200 000 persons were envisaged for the study, with a detailed breakdown as follows;

Table 3.1 Distribution of Study Population

	Expresso	MTN	Tigo	Vodafone	Airtel	Total
Network Staff	450	1,500	300	1,300	450	4,000
Management Staff	60	280	100	260	100	800
Mobile Phone Users (Customers)	143,360	318,720	284,080	253,040	196,000	1,195,200
GRAND TOTAL	143,870	320,500	284,480	254,600	196,550	1,200,000

Source: Researchers Survey Data 2011

3.3 Sample and Sampling Techniques

A sample is the segment of the population that is selected for investigation. The method of selection may be based on a probability or a non probability approach. This particular study considered people living in the Kumasi metropolis who subscribe to the services of the five main mobile phone service providers.

3.3.1 Sample Size

The decision about sample size is not a straight forward one. It often depends on a number of considerations. Most of the time, decisions about sample size are affected by considerations of time and cost. Therefore, invariably decisions about sample size represent a compromise between the constraints of time and cost, the need for precision, and a variety of others. For this study the sample size is 800 people, (who are made up of

customers of the five mobile phone operators and the service providers themselves within the Kumasi Metropolis. The distribution of the selected sample size was as per table 3.2 following.

Table 3.2 Distribution of selected sample size

	Expresso	MTN	Tigo	Vodafone	Airtel	Total
Network Staff	25	50	50	50	25	200
Management Staff	5	30	15	30	20	100
Mobile Phone Users (Customers)	40	200	60	150	50	500
GRAND TOTAL	70	280	125	230	95	800

Source: Researchers Survey Data 2011

The sample size is more of an absolute nature rather than a relative size. The absoluteness of the sample is more important than its relativity. This means that a probability sample of 800 customers of mobile service providers in the Kumasi metropolis has as much validity as a 1200 customers of mobile service providers in Accra, even though the latter has a much larger population. The most important component of any decision about sample size should be how much sampling error one is prepared to tolerate. In this study a sample error rate of 5% is a tolerable level.

3.3.2 Sampling Technique

Since the whole population could not be investigated, there was the need for the use of a representative sample. A representative sample is that which reflects the population accurately so that it is a microcosm of the population. This was done through the use of the probability sampling technique. The probability sampling technique allows every unit in the population to have a known chance of being selected. It is generally assumed that a representative sample is more likely to be the outcome when this method of selection from the population is employed. The aim of probability sampling is to keep sampling error to the minimum. Two basic probability selection methods were adopted: Simple Random Sampling and Stratified Random Sampling.

Simple Random Sampling

With simple random sampling, each unit of the population has an equal probability of inclusion in the sample. In this study, the population of Kumasi is estimated to stand at about 1,200,000 people, out of which a sample size of 800 was selected. This means that the probability of inclusion in the sample is approximately 6.67 (i.e. $800 \div 1,200,000$). This method reduces the opportunity for human bias to manifest itself. Customers were not selected on a subjective criterion as to whether they were Airtel, Tigo, Expresso, MTN, or Vodafone customers. The selection of whom to interview or who to question is entirely mechanical. Secondly, the process is not dependent on customer availability. They do not have to be staying near the researcher's proximity to be included in the sample. The process of selection was done without their knowledge. It is not until they are contacted by the researcher that they realised they are part of a study.

Stratified Random Sampling

To ensure that there was a proportionate representation of the different mobile phone service providers and their customers, the stratified random sampling approach was adopted. This was because the kind of mobile service a customer receives from a particular mobile service provider is viewed as relevant as a variable in the study. Thus, stratified random sampling enabled the researcher to get a proportionate representation of

all five mobile phone service providers and their customers in the sample size of 800 persons. It ensured that the resulting sample was distributed in the same way as the population in the terms of stratified criterion.

3.4 Data Collection Techniques

Our research model can be viewed from the perspective of a survey research. Survey research comprises a cross – sectional design in relation to which data are collected predominantly by use of questionnaire or by structural interview on more than one issue and at a single point in time in order to collect a body of quantitative of quantifiable data in connection with two or more variable, which are then examined to detect patterns of association. For this study, observations in addition to questionnaire and interviews were adopted in the collection of the needed data.

3.4.1 Questionnaires

Self – administered questionnaire formed part of the data collection techniques of this study. With self – administered questionnaire, respondents answered questions by completing the questions themselves. As a method, the self completing questions came in several forms. Probably, the most prominent of this form is the self administration whereby as the name implies, a set of questionnaire is given to the respondent. He/she answers the questions and returns them to the researcher. Invariably where the postal method is adopted (in our case not applied), the questionnaire are sent by post to the respondent to return it to the researcher either by post or asked to deposit it at a specified location after completion. For this study, the self – administered method was adopted. Two different set of questions were prepared. One set of questions for mobile service providers and another set for customers of the mobile service providers. Both open ended and closed ended type of questions were used. In the closed ended type of questions, respondents were expected to tick the correct response, while in others; respondents were to choose from a group of possible multiple answers. Others required respondents to select either a Yes or No answer. The open ended questions required respondents to provide a one word answer or make a simple statement. These types of questions were adopted to make it easy for respondents who might not want to use much in answering research questions. Any questions demanding longer answers and or analysis may not receive the required attention of respondents.

3.4.2 Interviews

The structured and semi structured interview methods were adopted for this study. A structured interview entails the administration of well constructed questionnaire through an interview schedule by an interviewer. The aim is for all interviewees to be given exactly the same context of questioning. This means that each respondent receives exactly the same interview stimulus as any other. The good about this type of interviewing is to ensure that interviewees' replies can be aggregated and this can be achieved reliably only if those replies are in response to identical cues. Interviewers are supposed to read out questions exactly and in the same order as they are printed on the schedule. The questions were very specific to offer the interviewees a fixed range of answers. In this particular study, the interview method was adopted to take care of

illiterate respondents. For this matter, the same sets of questions applied in the questionnaire method were used for the interviews.

3.4.3 Observation

The structured observation method was also adopted for the study. Structured observation is a technique in which the researcher employs explicitly formulated rules for the observation and recording of behaviour. The rules inform observers about what they should look out for and how they should record behaviour. Each person who is part of the study (mobile phone service providers and their customers in Kumasi) is observed for a predetermined period of time using the same rules. These rules are articulated in what is usually referred to as an observation schedule, which bears many similarities to a structured interview schedule with closed ended questions. The aim of the observation schedule was to ensure that each participant's behaviour was systematically recorded so that it is possible to aggregate the behaviour of all those in the sample in respect of each type of behaviour being recorded. The rules that constitute the observation schedule are as specific as possible in order to direct observers to exactly what aspect of behaviour they are supposed to be looking for.

For this study, the researcher was the main observer and was expected to observe the behaviour of the mobile phone service providers in Kumasi in relation to expansion ie. new operating centres, new recruitment of unit sellers, number of promotion durbars, and bill boards and so on within the Metropolis. This method was restricted to only the mobile phone service providers and not their customers.

3.5 Data Analysis

The data collected is made up of individual customers of the five mobile phone service providers in the Kumasi metropolis. These individual customers are members of the sample. All members of the sample share some common attributes or characteristics which the researcher was interested in. In this case, the researcher might have been interested in call time used per week, amount spent on calls per week, number of service providers you operate with, etc. Further, each member differs from one or more of the others on these characteristics. Because of the variations among members, such characteristics are called variable characteristics or more simply variables. The questionnaire determined these variables.

With variables such as number of calls made per week, amount spent per week on calls, etc., the researcher was looking at quantity variables. These quantity variables are either discrete or continuous and require a measurement system. With variables such as "type of mobile service you use" categories etc were set up. e.g. Vodafone, MTN, Tigo etc. This type of variable is called category variable. A category variable is sometimes called nominal variable (from the Latin word *nominalis* = of a name). We also considered in our questionnaire type of services rendered by the service providers. Since these questions demanded the condition of service (ie. Excellent, very good, acceptable, not acceptable), the categorisation was made in an order of condition. This type of categorising variables is called ordinal variable.

The researcher also took at another important step in analysing the variables. He had to differentiate between the independent variable(s) and the dependent variable(s). The

dependent variable is the variable of interest to the researcher in his research question eg. Why does a customer prefer one service provider to another? In this study, the variable of interest is what makes the customer ie. Choose MTN instead of Tigo, and this is the dependent variable. It is dependent on the service provider; hence the service provided is termed the independent variable in this particular piece of research.

These are the variables upon which the data is analysed. Thus the data is grouped into variables for the questionnaire. The variables are then quantified or categorised. Quantified data is either discrete (counting) or continuous (measuring). Categorised variables are either nominal or ordinal. All categorised data are displayed in tables either from the raw data form or in percentages. From the table, we determine the 'mode' of the sample. The mode of a distribution is the category which occurs with the greatest frequency. It is the most fashionable or popular value. Histograms and pie charts provide a diagrammatic view of difference in proportions. Histograms are particularly useful when we are comparing one service provider with another.

The techniques for summarising the quantitative data will be methods of determining measures of central tendency, as well as measures of dispersion. Measures of central tendency include the median and mean, while measures of dispersion include the range and standard deviation. These methods were adopted in the collection and analysis of data. In conclusion, data collected was first edited to ensure consistency. It was then coded and analysed by using groupings. The data was electronically processed for convenience and to save time. Conclusions were then drawn on the data.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.0 Introduction:

This chapter presents the empirical data derived from the structured and semi-structured interviews, questionnaire responses and observational techniques. In this light therefore, the data was categorised according to objectives and research questions that the research attempted to answer.

The data presentation in this chapter does not follow the sequence in the interview protocol, the observation checklist or other instruments. Instead, the data from these instruments that address a particular research theme in relation to the study objectives are presented together. Data from different sources that answer the same research question was presented together.

As elucidated by Creswell and Clark (2011) data analysis in a mixed methods research consists of analysing quantitative data using quantitative methods and the qualitative data using qualitative methods.

A large fraction of the data derived from interviews with mobile phone users and other interviewees was quantitative in nature. This data was analysed using SPSS and was presented in graphic and tabular forms. Tables and figures were used in other to allow for variety in presentation of the data. Percentages were rounded to one decimal place. Before the data was entered into SPSS Software it was cleaned and coded by assigning them numerical values.

4.1: Demographic Characteristics of Respondents

Identifying the characteristics of respondents was not part of the specific objectives of the study. However, it is necessary to present this data for readers to understand the background of the respondents. Characteristics of respondents provide a snapshot on the suitability of the respondents for the study. They also provide information on how well the respondents represented the characteristics of the users and non users of mobile phones and hence provided background information for the presentations of the findings of the study.

Again, understanding the background of the respondents would shed or throw some light on the factors that influence the use of mobile phone as well as the factors that influence the patronage of a particular mobile phone company's services and products. The characteristic of respondents in this study were described in these categories as follows.

- I. Personal data – covers age, gender, level of education and occupation.
- II. Household data - includes the relationship of the response to the head of household, number of people living in the household and the extent to which the household depends on support from family members living elsewhere.
- III. Economic Status – includes the principal source of income for the individual respondents.

4.1.1 Personal Data

Table 4.1 below provides details of age, gender and literacy of respondents.

Table 4.1 Age, gender and literacy of Respondents

Demographic Data	Mobile Phone Operators				
	MTN	VODAFONE	EXPRESO	TIGO	AIRTEL
Respondents Involved	70	60	40	50	80
Mean Age	28	29	29	28	28
Male : Female ratio (%)	41:29 (59% : 41%)	30 : 30 (50% : 50%)	26 : 14 (65% : 35%)	28 : 22 (56% : 44%)	51 : 29 (64% : 36%)
Literate : Illiterate ratio (%)	68 : 2 (97% : 3%)	57 : 3 (95% : 5%)	39 : 1 (97% : 3%)	49 : 1 (98% : 2%)	78 : 1 (98% : 2%)

Source: Survey Data 2011

The mean or average age of respondents was 28 for MTN Subscribers, 29 for Vodafone, 29 for Expresso, 28 for Tigo and 28 for Airtel users. The study chose respondents whose daily activity greatly involves the use of mobile phone services. This means that the respondents chosen were relatively young and economically active. Since the respondents were selected using non-probability sampling technique, efforts were made to include both sexes during selection.

The number of women interviewed was slightly lower for Expresso and Tigo as shown in table 4.1 above.

The respondents were asked whether they knew how to read and write. Literacy levels in terms of the ability of respondents to read and write in the national language (English) were quite high among user and patronisers of services and products of all the 5 mobile phone service providers in this study (see table 4.1)

4.1.2 Level of Education of Respondents

In question two (2) (appendix 1) respondents were asked if they had received any formal education. This was to show which group of persons patronised mobile phone services the more (the elite or those with no formal education). The question required the respondents to provide a “yes” or “no” answer, the result of which were that, 68(97.1%), 57(95.0%), 39(97%), 49(97.5%) and 78(97.5%) of the respondents selected from among mobile phone users of the five phone companies MTN, Vodafone, Expresso, Tigo and Airtel respectively within the Kumasi metropolis had formal education.

Those who had received formal education were further asked to indicate the highest level of education they had achieved by choosing one of the six categories provided in question 3 appendix 1. Different level of education achieved or obtained by the respondents for the various mobile companies in the Kumasi metropolis are shown in table 4.2 below

Table 4.2 Respondents level of Education

Level of Education	Mobile Phone Company				
	MTN	Vodafone	Expresso	Tigo	Airtel
Primary Education	44 (62.86%)	49 (81.7%)	23 (57.5%)	34 (68.0%)	38 (47.5%)
Junior High School Education	18 (25.72%)	5 (8.3%)	8 (20.0%)	4 (8.0%)	4 (5.0%)
Senior High School Education	—	—	—	7 (14.0%)	8 (10.0%)
Tertiary Education	5 (2.85%)	3 (5.0%)	3 (7.5%)	2 (4.0%)	22(27.5%)
Adult Education	2(1.43%)	—	1 (2.5%)	2 (4.0%)	5 (6.24%)
Have not gone to School	1 (1.43%)	3 (5.0%)	5 (12.5%)	1 (2.0%)	3 (3.8%)

	70(100%)	60 (100%)	40 (100%)	50 (100%)	80 (100%)
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Source: Compilation from Researcher's Survey Data 2011

The result of this analysis indicated that individuals who have some form of formal education patronized mobile phone services more than those with no formal education

4.1.3 Occupations of Respondents

As part of effort in identifying the economic activities of the respondents, the research put the questions as to what they do to earn a living. This was open ended questions and various economic activities were given by the respondents, which included; small scale business operators, artisans, fishermen, farmers, livestock-keepers, students and others. For the purpose of coding and simplifying the data, these activities were further grouped into formal and informal sectors as shown in table 4.3 below

Table 4.3 Main Occupation of Respondent; Formal and Informal Sector

Occupation of Respondents	No	Formal Sector		Informal Sector	
		Number	%	Number	%
MTN	70	64	91.4	6	8.6
Vodafone	60	55	91.7	5	8.3
Expresso	40	33	82.5	7	17.5
Tigo	50	42	84.0	8	16.0
Airtel	80	76	95.0	4	5.0
TOTAL	300	270		30	

Source: Researcher compilation for survey data 2011

4.2 Analysis of Competitive Tools and Strategies adopted by mobile phone companies in Ghana for the period 2004 – 2009

This analysis was performed to assess the strength and weakness of current and potential competitors on the Ghanaian Mobile Phone Market and particularly the phone market in the Kumasi metropolis. The analysis identified various tool and strategies, some of which are offensive and others defensive in context. The tools and strategies aided the phone companies to identify opportunities and threats on the phone market which facilitated their respective strategic planning and overall operations. Thus, with this, management of the various mobile phone companies could develop competitor analysis and framework to support effective and efficient strategy formulation, implementation and monitoring. The main tools adopted by the various mobile phone companies in Ghana are shown in table 4.4 below.

Table 4.4: Competitive Tools Adopted by Mobile Phone Companies in Ghana between 2004 and 2009

Mobile Phone Company	Tools								
	Television Adverts	Road Shows & Floats	Bill Boards	Flyers	Brouche rs	Social develop- mental Projects	Door to Door canvassing	Brand Product	Authorised Agencies
Tigo	✓	✓	✓	✓			✓		✓

Espresso	✓	✓	✓	✓	✓			✓	
MTN	✓	✓	✓	✓	✓	✓		✓	✓
Vodafone	✓	✓	✓	✓	✓	✓	✓	✓	✓
Airtel	✓	✓	✓	✓	✓	✓	✓	✓	✓

Source; Researcher's Compilation from Operational Reports of the five Companies

2010

From the above table it is crystally clear that Tigo and Espresso do not embark upon Social development projects. Whereas MTN and Espresso do not adopt door to door campaigns in the sales of their services and products the reason being that MTN seemed to be a bit satisfied with its customer base and was more interested in the customer retention.

4.3 Trend Analysis of market entry for Mobile Phone Operators (2004 – 2009)

To establish the pattern of market entry by mobile phone operators or companies into the Ghanaian phone market, trend analysis was conducted on incorporated and fully operative mobile phone companies in Ghanaian phone market for the period under review (2004 – 2009). For the six years period of the study, there was an average increase of trend in the number of new companies entering the market with each year witnessing the entry of at least one new company. The year 2008 in the study period witnessed the highest entry of two new companies into the Ghanaian mobile phone market. Table 4.5 below depicts the trend of new entrants into the mobile telephony market in the country.

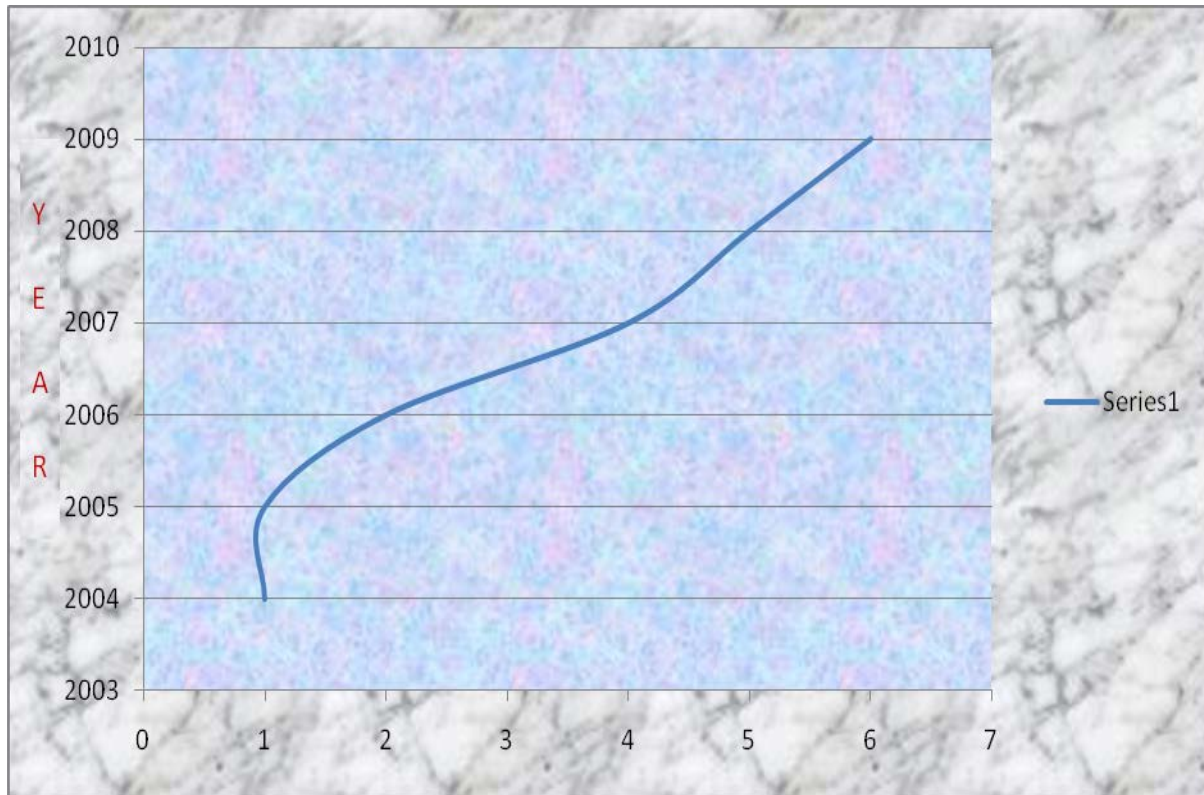
Table 4.5 Trend of Entry into the Phone Market by Mobile Phone Companies 2004 - 2009

Year	No. of Companies Present In the market	Companies in the Market
2004	1	Ghana Telecom
2005	1	Westel
2006	2	Milicom Ghana limited (mobitel), Scancom Ghana limited (Spacefon)
2007	4	Milicom Ghana limited (Buzz), Ghana Telecom (ONE touch) Westel (Zain) Spacefone (Areeba)
2008	5	Buzz (Tigo), One-Touch Vodafone), Kassapa (Espresso), Areeba (MTN), Zain (Airtel)
2009	6	Tigo, Vodafone, Espresso, MTN, Airtel and Globacom

Source: Author Survey data 2010

This is further shown graphically as in figure 4.1 below

Figure 4.1: Trend of Entry into Market by Mobile Phone Companies (2004 – 2009)



Source: Authors Survey Data 2011

Table 4.4 and its correspondent figure 4.1 shows the trend of entry in to the Ghanaian Mobile Phone Market by phone companies for the period of 2004 – 2009. There was an increasing trend in the number of mobile phone companies that have come into full gear operation in the mobile telephony sector. On the average, there is the emergence of at least one company in every year for the 6 years period under review.

4.4 Analysis of factors that influence competition among mobile phone services operators in Ghana.

This section discusses the influential factors that seek to encourage competition among service providers in the Ghanaian mobile phone industry. Also the section discusses test of significance as to whether the factors obtained from the survey data significantly influence competition. Table 4.6 and its corresponding figure 4.2 clearly depict the factors influencing competition on the Ghanaian mobile phone market.

The table indicates that out of seven factors (or encouraging variables) obtained from the survey data continuous technological innovations and advancement and also cheap availability of labour force were found to be the factors that influence competition in the phone industry the most. This constituted about 39% of the causes of competition over the 6 year period under review (2004 – 2009). Enabling environment and easily entry parameters by service providers is the second highest factor that influences competition in the mobile phone industry in the country, with a percentage of 13, meaning that mobile phone service operators in the country are influenced greatly to engage in serious competition. However least factors were found to be Government Policy and Regulatory

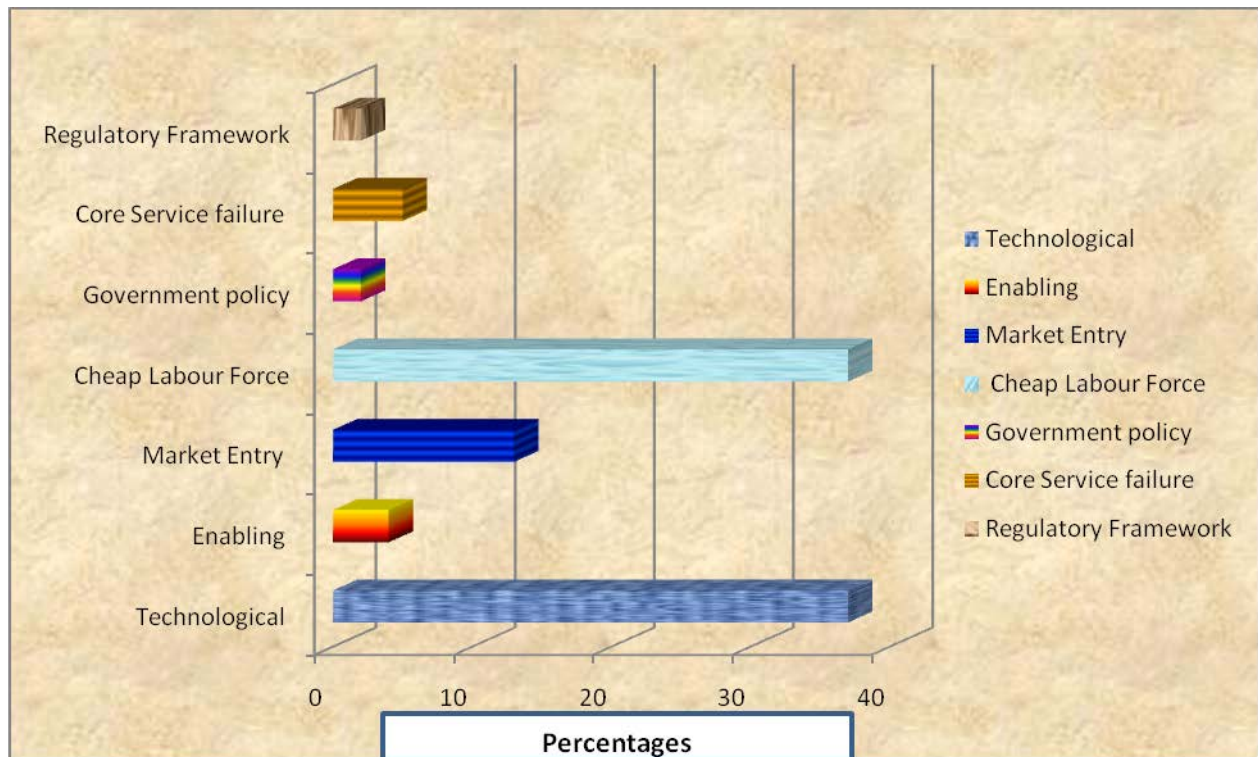
Framework both of which scored 2% each. Table 4.6 that follows shows the intensity, gravity and strength of the various influential factors of competition among phone operators in Ghana

Table 4.6 Levels of Influence of factors that promote competition among Mobile phone operators in for Ghana 2004 - 2009

Type of factors	Level of Influence
Technological Advancement & Innovations	37%
Enabling Environment	4%
Market Entry Parameters	13%
Availability of Cheap Labour Force	37%
Governnment Policy	2%
Core Service Failure and Customer Switching Behaviour	5%
Regulatory Framework	2%

Source: Survey Data 2010

Figure 4.2: Percentage level factors of competition in the mobile market of Ghana 2004 – 2009



Source: Researchers Survey Data 2011

4.4.1 Significance testing of Influential Factors:

To determine whether the factors reported in table 4.6 and figure 4.2, significantly influence the choice of a mobile phones operator to engage in intense competition with others on the market, table 4.7 below provides significance test of the factors that influences the choice of phone operators in this regard.

Table 4.7 Significance Test of Influential Factors of Competition among Mobile Phone Operators in Ghana

	Test Value = 0					
	T	Df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval	
					Lower	Upper
Rate of factors one considers to engage in competition	14.861	299	0.000	5.440	4.720	6.160

4.4.2 Hypothesis for the t-test

Ho: The above factors considered have no significance on mobile phone Service Providers choice of engaging in competition with others in the market.

Hi: The factors discussed above have significant influence on mobile phone service providers' choice and action of engaging in intense competition with others in the mobile market.

Taking into account this particular study, the researcher was not aware of the existence of any such study hence the population mean was assumed to be zero. The mean difference is the mean factors influencing the provider's choice of competing, whereas the significance (2 – tailed)" normally called the p is the probability value. The significance level of the test is denoted by α and it is the level of risk error that the researcher took in the study data, hence providing for a 95% confidence interval of significance. The t in the tabel denotes the t-test statistic value.

It was observed from the table that the p -value =0.000, based on the 95% confidence interval 5 on the assumption that α is 5% (0.05).

In this respect therefore, since $p=0.000$ is less than $\alpha=0.05$ as a rule as stated by Gordor and Howard (2006), the null hypothesis of no significant influence of the factors on mobile service providers choice and action of engaging in competition was rejected. The conclusion was then reached that the factors identified by the survey data to influence service providers into getting involved in competition is valid.

Again the mean difference of 5.44 lives within the confidence limit of 4.720 to 6.160 which meant that the researcher was 95% confident that the mean factor value falls within the Specified Confidence interval. From the test of significance therefore, the conclusion is made that the factors stated above significantly influence the choice of mobile phone operators to engage in competition with others on the mobile telephony market of Ghana.

4.5 Market Shares of the Five Mobile Phone Companies under Study (2004 – 2009)

One of the strongest variables that determines the standing of a company is its market share in the industry that it belongs. Market share held by mutual companies is greater and reciprocal to the risk retention of such groups or companies. Kim and Browne (2003). In assessing the stand of the various mobile phone companies on the Ghanaian Telephony Market, their respective market shares for the period under review were reviewed as indicated in table 4.8 that follows:

Table 4.8 Market Shares of Mobile Phone Service Providers 2004 - 2009

Year	Mobile Phone Service Providers				
	MTN	Vodafone	Tigo	Expresso	Airtel

2004			42		
2005			43		
2006	18	14	38	14	
2007	44	21	15	16	4
2008	37	28	10	17	8
2009	39	20	22	9	10

Source: National Communication Authority (NCA) 2011

The market share of the various Mobile Phone Companies has been fluctuating over the years as new entrants surface on the market almost every year for the period under study. However cumulative average figures released by the National Communication Authority (NCA) for the 3rd quarter of 2011 indicates the following standings as shown in table 4.8.1 and figure 4.3 below. Thus from the table MTN holds the largest proportion of the Ghanaian mobile telephony market with 32% market share followed by Tigo, Vodafone Airtel with 23%, 21% and 13% respectively. Espresso has the smallest share of 11%. Cumulatively these percentages are expressed as per the table that follows.

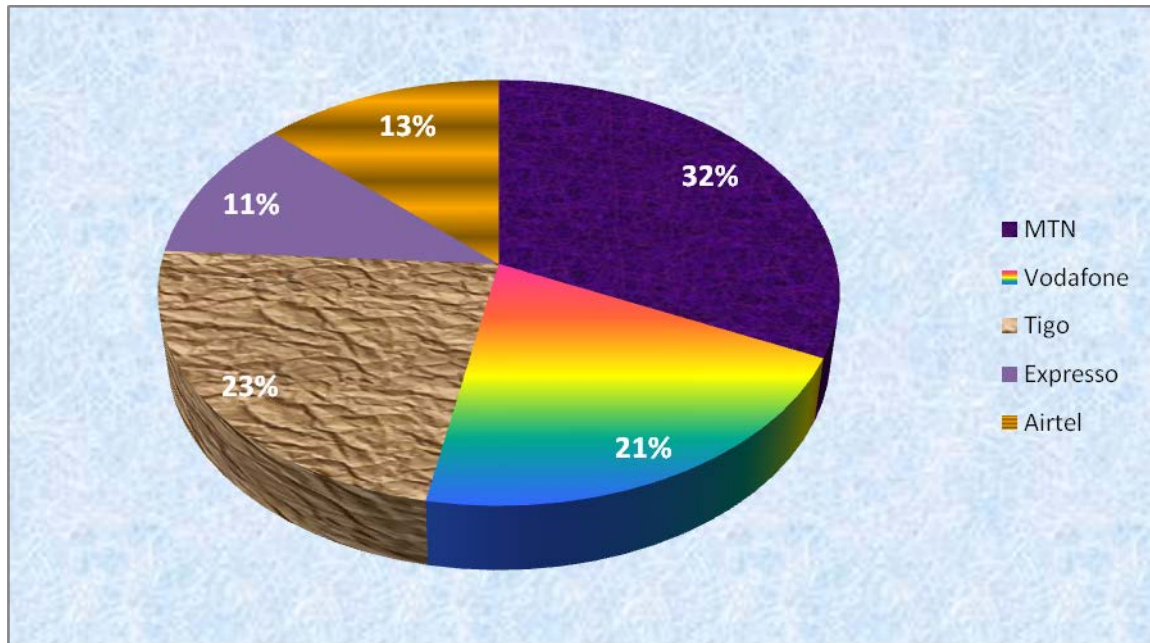
Table 4.8.1 Cumulative Average of Market Shares of Mobile Phone Companies in Ghana

Mobile Phone Services Providers	Percentage Market Share
MTN	32%
Vodafone	21%
Tigo	23%
Espresso	11%
Airtel	13%

Source: NCA 2010

Graphically this is presented in a chart as in the Figure 4.3 below:

Figure 4.3 Pie Chart of Market Share of Mobile Phone Companies



Source: Researchers Survey Data 2011

4.6 Supply behaviour of Mobile Phone Companies in Ghana (Contestable Market)

The supply behavior of mobile phone companies in the country is one that can be summarily described as a contestable market. That is a market where “an entrant has access to all production techniques available to the incumbents, is not prohibited from wooing the incumbent’s customers, and entry decisions can be reversed without cost.”

William Baumol (2010) www.tutor2u.net/economics

For a contestable market to exist there must be low barriers to entry and exit so that there is always the potential for new suppliers to come into a market to provide fresh competition to existing suppliers. For a perfectly contestable market, entry into and exit out of the market must be costless

The reality is that no market is perfectly contestable (there are always some “barriers to contestability”). That said, it is also true that virtually every market is contestable to some degree even when it appears that the monopoly position of a dominant seller is unassailable. This can have important implications for the competitive behaviour (conduct) of existing firms and clearly then affects the performance of a market from an economic efficiency viewpoint (e.g. allocative, productive and dynamic efficiency)

4.6.1 Contestable markets and perfect competition - the differences

Contestable markets are different from perfect competitive markets. For example, it is feasible in a contestable market for one firm to dominate the industry, have price-setting power and also for firms in a market to produce a differentiated product both of which run counter to the assumptions behind the traditional model of perfect competition.

Pure market contestability must often meet the following conditions:

1. **Perfect information** and the ability and/or the right of all suppliers to make use of the best available production technology in the market. The field survey conducted in this study indicated that 85% of the mobile phone operators interviewed (management and network staff) responded in the affirmative to the availability of perfect information about mobile phone operations in the country. This confirming the status of mobile phone markets in Ghana and for that matter the Kumasi Metropolis as being contestable. This is further illustrated in table 4.9 below.

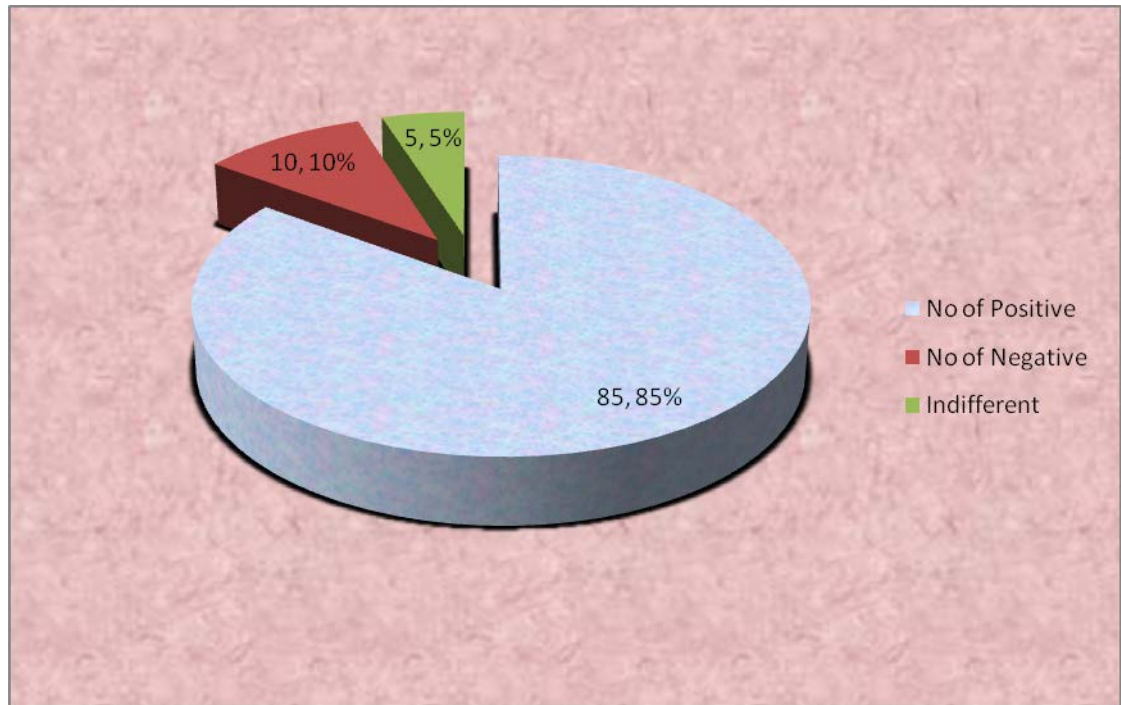
Table 4.9: Responses of interviewees on the contestability of mobile phone markets

No of Respondents (Mobile phone Operators)	No of Positive Responses	Percentage	No of Negative Responses	Percentage	Indifferent Respondents	Percentage
300	255	85%	30	10%	15	5%

Source: Researchers Survey Data 2011

Graphically, this is further represented as follows:

Figure: 4.4 Interviewees Responses to the Contestability of mobile phone market



Source: Researchers Data Survey 2010

Table 4.9 and its correspondent Figure 4.4 above showed that out of the 300 respondents interviewed, 225 representing 85% were positive about the contestability of the mobile phone market, 10 % thus 30 respondents responded in the negative whereas 15 of the representing 5% were indifferent on the question of the contestability or competitiveness of the Ghanaian mobile phone market.

2. **The freedom to market or advertise and enter a market with a competing product.** Analysis of the survey data regarding product introduction on the market as well as product advertising showed that there were no barriers. Entrants into the mobile phone market have the freedom to introduce new products at will.

3. **The absence of sunk costs** – this reduces the risks of coming into a market. Barriers to market contestability exist when there are sunk costs. These are costs that have been committed by a business and cannot be recovered once a firm has entered the industry. It might be easier to think of sunk costs as costs that are

unavoidable once they have been committed at a particular moment in time – a classic example being the money that the telecoms firms committed to winning the 3rd generation mobile phone licences at auction in 2000. When sunk costs are high, a market is more likely to produce a price and output similar to monopoly. The study showed that most of the mobile phone companies operating in Ghana rarely incurred any huge sunk cost as they often buyout existing companies. For instance Airtel Ghana bought out Zain, Vodafone bought out Ghana Telecom and Expresso bought out Kassapa. This implies that all the needed infrastructure had always been in place and for that matter little or less is further spent on sunk cost.

4.7 The Increasing Contestability of the Mobile Phone Market in Ghana

One feature of the Ghanaian economy in recent years has been an increase in the number of markets and industries that are genuinely contestable. Several factors explain this development:

4.7.1 Entrepreneurial Zeal

It is often the case that markets become more competitive because of the persistence of entrepreneurs who simply do not accept that the existing market structure is a given. Decisions to enter markets where there are already dominant businesses with significant industry experience involve taking risks – however, new suppliers on the Ghanaian mobile phone market may have the advantage of product innovation or a more competitive business model based on different pricing strategies.

4.7.2 Competition Policy

Tougher competition laws acting against predatory behaviour by existing firms are designed to make markets more contestable. In Ghana and other African countries this

has included tougher rules against price fixing cartels. When market contestability is weak, there is nearly always greater scope for cartel-type behaviour by the existing firms, particularly if the market structure in which they operate comes close to an oligopoly.

4.7.3 Technological Change (including the emergence of e-commerce)

The impact of new technology is having a huge effect, not least because it has brought down some of the entry costs in some markets (leading to an increase in capital mobility). The rapid expansion of e-commerce for example has led to the emergence of new players in the telephony sector and online business transactions and negotiations.

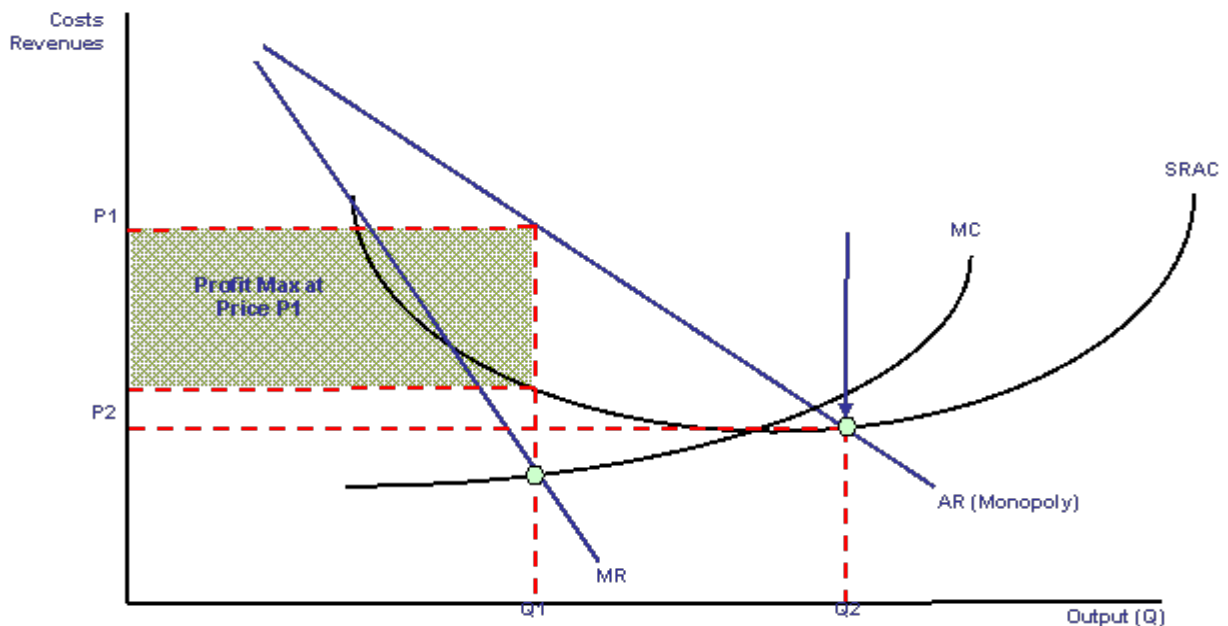
Technological spill-over can lead to the development of rival products that copy or imitate the characteristics of the products of the incumbent firms. Just a few years after the launch of Techno G3 mobile handset, rlg Communications [rl1](#), the first market rival to the hugely profitable Techno G3, is now being manufactured by the Ghanaian firm, rlg, and marketed by its own numerous sales outlets throughout the country.

4.8. Contestable Markets and the Performance and Conduct of Businesses on the Mobile

telephony market of Ghana

The competitiveness of the mobile phone market goes a long way to affect and determine the conduct and performance of businesses on the market. It is worth emphasising that it is the actual behaviour of mobile companies in the market that is more important than a simple picture of market share.

Figure 4.5: Competition and Downward Pressures on Prices



Source: Geoff Riley, Eton College, September 2006

In the diagram above a pure monopoly might price at P_1 and reach a profit maximizing equilibrium. If a market is contestable, there is downward pressure on price, because the existence of supernormal profits provides a signal for new firms to enter the market and if the existing monopolist is producing at too high a price or has allowed their average total costs to drift higher, then entrants can undercut the monopolist and some of the monopoly profit will be competed away. Normal profit equilibrium occurs when average revenue equals average total cost (at output Q_2 and price P_2).

From an economic welfare point of view, a lower price and higher output implies an improvement in consumer welfare (which could be illustrated by an increase in consumer surplus).

When markets are genuinely contestable – we expect to see lower profit margins (i.e. lower “mark-ups”) than when a monopoly operates without competition. Indeed the threat of competition may be just as powerful an influence on the behaviour of the existing firms in a market than the actual entry of new businesses. If a dominant firm in a contestable market knows that new suppliers may come in – this may be sufficient for

them to charge a price closer to the level we might expect from a competitive market structure.

If a market is contestable, industry structure and firm behaviour is determined by the threat of competition - 'hit-and-run' entry. The market will resemble perfect competition, regardless of the number of firms, since incumbents behave as if there were intense competition.

4.9 Analysis of Customer Service/Customer Satisfaction tools among Mobile Phone Companies in Ghana.

It is a well known fact that no business can exist without customers. In the mobile phone business, it is important to work closely with customers so as to make sure that services provided for them meet their requirements. Forming closer relationship with customers in the mobile phone industry is critical and of vital importance. As the market shrinks, companies scramble to boost customer satisfaction and keep their current customers rather than devoting additional resources to close potential new customers. The claim that it cost about five to eight times as much to get new customers than to hold on to old ones is key to understanding the drive towards benchmarking and tracking customer satisfaction.

This study indicated that mobile phone companies in Ghana have now recognised that the global economy has changed many things. The market is experiencing increasing competition, crowded market with little product differentiation and years of continual sales growth. As a result, competitors have now switched their focus from income statement and balance sheet (profit) orientation to customer centred orientation. Competitors in the mobile phone market have come to the realisation that customer satisfaction is a critical strategic weapon that can bring increased market share and increased profit. It is therefore no surprise to find that leaders like MTN and Vodafone differ from the rest of the industry players in that they have designed mechanisms to hear the voice of their customers and customer satisfaction.

The field survey conducted indicated, mobile phone service providers in the Kumasi metropolis and for that matter Ghana adopts techniques and approaches as indicated in table 4.10 below to achieve customer satisfaction.

Table 4.10: Tools and Techniques for Customer Satisfaction among mobile phone companies in Ghana.

Phone companies/ Tools and Techniques	Customer Service Desk	Face to Face Dealings	Clearly defined customer service policy	Prompt Response to Messages	Adoption of Friendly Approache to customer	Attention to Details
MTN	✓	✓	✓	✓	✓	✓
Vodafone	✓	✓	✓	✓	✓	✓
Tigo	✓	✓	✓		✓	
Expreso	✓	✓		✓		
Airtel	✓	✓	✓	✓	✓	✓

Source: Researchers Survey Data 2011

4.9.1 Consumer Behaviour

According to Solomon (2006), Consumer Behaviour is the study of the behavioural process involved when individuals or organization select, purchase, use or dispose of products, services, ideas, or experience to satisfy their needs and desires. In this research the researcher also attempted to investigate how organization and individuals (subscribers) of telecom services select or make a choice out of different product and services offered by competing telecom service providers with the view to satisfying their need to connect to their business partners, family and friends both within and outside Ghana. The study revealed that all the five mobile phone companies involved in the study use the GSM technology now. It is therefore easier to switch from one network to the other. Below is elaborate review of factors affecting consumer behaviour.

4.9.2 Subscriber Growth and Revenue

Growth refers to an increase in some quantity over time where quantity can be physical (e.g., growth in height, growth in an amount of money) or abstract (e.g., a system becoming more complex, an organism becoming more mature). For the purpose of this study, subscribers imply the consumers of mobile phone services, (individual persons, and corporate bodies) who have signed onto the services of a service provider. Subscriber growth in this case therefore refers to an increase in the number of customers signed on to a particular telecom services provider over time.

4.9.3 Factors contributing to Customer Switching Behaviour in the Mobile phone industry of Ghana

The researcher conducted interviews with respondents in line with earlier established factors by Keaveney (2005) which conceded that consumer switching behaviour in

service industry are often affected by core service failure, pricing differentials, voluntary switching, service encounter failures and ethical problems. In this regard, this study indicated that major factors of consumer switching behaviour, beside those established by earlier authors include competitive offers, and technological changes.

4.9.3.1 Core Service Failure and Customer Switching Behaviour

The study further indicated that, core service failure cited as the major reason for switching in Keaveney's study of the service industry, has 44% of the respondents of this current study mentioning it as the main reason for switching. It was also revealed that Core service failure may be the only reason for the switch or it may be combined with other reasons, which tilt the balance towards switching to another provider. Core service failure include all critical incidents that were due to mistake or other technical problems with the service itself.

4.9.3.2 Service Encounter Failure and Customer Switching Behaviour

Service encounter failure are considered as the second most important reason for consumer switching in service industry. These failures are related to human factors in a firm. Employees who treat customers in an uncaring way, impolite and unresponsive way can cause dissatisfaction amongst consumers. In addition an employee who is incompetent and unknowledgeable can also become a contributing factor to a consumer switching away. A study conducted by, Brown, and Chandrashekeran (1998) according to Sidhu (Simon Fraser University, 2005) indicates that interaction justice is a key factor in determining a client's satisfaction. "The inclusion of interactional factors helps explain why some people might feel unfairly treated even though they would categorise the decision-making procedure and outcomes as fair". According to the authors, employees and managers act in a polite and helpful manner diffuse and reverses unpleasant situation, whereas if the same situation is handled rudely and uncaringly, it will end up exacerbating the anger. In the same vein as indicated earlier, this may lead to the victim, in this case the customer switching away to subscribe to another telecom service provider whose employees acts politely. This will then lead to a negative subscriber growth to the provider with uncaring employees whilst the provider with polite employees experience positive subscriber growth.

4.9.3.3 Pricing and Customer Switching Behaviour

Keaveney's (2005) study revealed that pricing differentials is the third reason for switching behaviour. Pricing includes any rates, fees, tariffs, surcharged, penalties or promotional deals. Although in conjunction with other factors, customers tend to switch not only because the price is high, but also when price increase is seen as unfair. Some of the common complaints with this category were that the representatives were not empathetic or did not acknowledge that the complaint made by consumers were legitimate. "Literature suggests that making excuses or delivering outcomes in rude or insincere manner affects the value of the outcome. The manner in which views are communicated influences perceived fairness of its outcome". Brown and Chandrashekeran, (1998).

4.9.3.4 Competitive Offers and Customer Switching Behaviour

As indicated earlier on, competition in the Cellular industry is basically between five main cellular companies MTN, Tigo, Vodafone, Expresso and Airtel. Each carrier is

trying to attract new customers to its network by offering them massive discounts, promotional free airtime, free night calls, MTNs (MTN Zone discounts), Tigos (talk longer,), Vodafone's (Extreme value offer which can be used to call all Vodafone networks one month free after recharging with only five cedis), Espresso's (Dash) and Airtel's (Airtel pays). This has led to numerous choices for the cost-conscious customers.

Chapter Five

Major Findings, Conclusion and Recommendations

5.0 Introduction

This chapter summarizes the findings from the analysis and discussions of data collected in the study. It therefore outlines the summary of findings and recommendations made to improve quality service delivery in the telecom industry so that consumers can benefit immensely. This chapter also draws down the curtain on the entire study.

5.1 Major Findings

A summary of the major findings of the data analyzed are discussed in this chapter. These findings are based on the impact of competition on customer services in the mobile phone industry in Ghana.

5.1.1 Demographic Characteristics of Respondents

The respondent age distribution indicate that mobile phone users below 20 years are 15%, 20-30 years are 29.1%, 31-40 years are 30%, 41-50 years are 20%, 51-60 years are 5% while user above 60 years are 0.9%. Users between the age group of 31 – 40 years use mobile phones the most.

5.1.2 Target Group and Product Differentiation

As a result of the highly competitive nature of the market, each network service provider is scrambling to increase its customer base and to retain the existing ones. Products are introduced into the markets that are geared towards every user. For instance, almost all the mobile phone companies introduced into the market handsets with different qualities and prices that cut across the market to enable everyone irrespective of your economics or financial status acquire a mobile phone of your choice for use.

5.1.3 Patronage and Network Coverage

It was revealed that among the five mobile phone companies operating in the country, MTN has the widest network coverage and is the most patronized network service provider and this explains why it is the leader in the mobile phone market. It was discovered that almost all the different categories of users, thus the young and the old, the rich and the poor, the literate and the illiterate, the bourgeoisies and the down-trodden are all clients of MTN. Whereas Expresso is the least patronized and has a very small network coverage area. With Vodafone Ghana, some particular class of people such as the rich and bourgeois patronized the service most. This is attributed to the fact that when the then One touch (Ghana Telecom) launched their mobile services the cost of Starter Sim Pack was too exorbitant, that is, a hundred and fifty Ghana cedis (¢150.00) even though the official price was ¢36.00 for ordinary people to acquire. And to some respondents there is no need patronizing their services again now that a Starter Sim Pack cost GH¢1.00.

5.1.4 Factors that influence competition in the mobile phone industry in Ghana.

The following seven factors were found as the influential factors that promote competition among players of the mobile phone industry: Technological advancement and innovation, enabling environment, market entry parameters, availability of cheap labour force, government policy, core services failure, switching behavior and regulatory framework. It was revealed that out of the seven factors obtained from the survey data, continuous technological innovation and advancement and also the availability of cheap labour force were found to be the factors that influence competition most. This constituted about 30% of the influential factors of competition over the six year period (2004-2009) under review

Enabling environment and easy entry parameters by service providers is the second highest factor that influences competition in the Ghanaian mobile telephony sector, with a percentage of 13. However, the least factors were found to be government policy and regulatory frame-work both of which scored 2% each.

5.1.5 Competitive Tools and Strategies Used by the Mobile Phone Companies in Ghana

Results of the study analysis indicates that, as a result of the battle for supremacy all the five mobile phone companies adopt almost the same tools in canvassing for customers in order to gain competitive urge over one another. Prominent among the tools adopted were televisions and radio adverts, road shows and floats, bill boards' flyers, social developmental projects and initiatives as part of their corporate social responsibilities, door to door campaigns and the use of authorized agencies.

As shown in Table 4.5, Espresso and Tigo seem not to embark upon social developmental projects much. MTN and Espresso do not actively embark on door to door campaign for customers and sales of products the reason being that MTN seemed to be content with its customer's base and was rather more interested on their retention. Studies however revealed that Vodafone Ghana and Airtel Ghana are rather aggressive in their campaigns in the quest to increase their customer base. As part of its corporate social responsibility agenda Vodafone Ghana is applauded for its "health line" program, a benevolent step taken to aid the sick but needy people in the Ghanaian society. Also, the Zain African challenge was a benevolent step taken by Zain (Airtel) which helped to unify African Universities and also enrich them.

Finally, as regards authorized agencies, the four companies, MTN, Vodafone, Tigo and Airtel with the exception of Espresso all implore the use of authorized agencies for the sales of their products and services.

5.1.6 Customer Services and Customer Satisfaction

As indicated earlier, competition plays a very crucial role in the lives of the mobile phone customers in Ghana. The field survey conducted indicated mobile phone service providers in the Kumasi Metropolis and for that matter Ghana adopted some techniques and tools as shown in table 4.10 in order to satisfy their customers and achieve their organizational goals. Some of the techniques deplored were the use of customer service desk, face to face interaction of dealings; prompt responses to messages and complaints as well as the use of call centre whereby customers problems are addressed on phone by

customer service personnel without the customer necessarily moving to the customer service centre. Among the five mobile phone companies, it is only MTN and Vodafone that use this mechanism. It was however revealed by respondents that, the call centre facility put in place by MTN and Vodafone is sometimes frustrating because a customer will report a problem and he or she is put on hold while the mechanism will either continue to run adverts on the customer's ear or will be singing. To make matters worse, the customer service personnel might either not act swiftly in solving their problem or failing to resolve the matter entirely.

On the issue of whether customers intended to switch to other network in the near future. The response was affirmative. The response for the subscribers of MTN was the highest, followed by Vodafone, Expresso, Tigo and Airtel. In contrast, the subscribers of Airtel Ghana were more satisfied with their services more than the rest of the subscribers. According to them, the company's service delivery was superb and the call rates excellent.

Whereas customers of Tigo claimed the company's services were not bad but one thing most respondents complained of was lack of innovation on the part of the network operator.

Respondents of Expresso on their part claimed there was clarity in the service and the network is fast in terms of call making, but one remarkable reason why they might switch to other network is the small coverage area of the network.

Vodafone customers also pointed out to the fact that though the company is very innovative, until the introduction of the '8 pesewa per minute call rate and the 60 60 extreme value offer promotions' the network call rate was very high and their customer services is below expectation and these reasons might push them into changing their network.

Finally, some respondents of MTN claimed, the network's services in recent time have been very appalling due to congestion. They however alluded to the fact that in terms of widest coverage no network comes near MTN. But due to the congestion and high call rates anytime the company is not running promotion, may force some of them to good-bye the network.

As regards customer service centers or sub-offices of the mobile phone companies in the Kumasi Metropolis, MTN has four (4) offices, three (3) offices for Vodafone, three (3) for Airtel and one (1) office for Expresso.

5.1.7 Market Entry Trend and Market Share

As shown in table 4.4 and its correspondent figure 4.1, there is an increasing trend of entry into the market by the mobile phone companies operating in the country.

Averagely, there is at least the emergence of one company in every year for the six years period (2004-2009) under review.

Again, it was indicated that the market share of the various mobile phone companies has been fluctuating over the years due to entry into the market by new operators. However as indicated in table 4.8.1 and its correspondent figure – cumulative average figures

released by the National Communication Authority (NCA) for the 3rd quarter of 2011, indicates that MTN represents the highest portion of the market share being 32%, Tigo is represented by 23% while Vodafone, Airtel and Expresso are represented by 21%, 13% and 11% respectively.

5.1.8 The Effects of Competition on the Mobile Phones Companies and Users

The effects of competition on mobile phone companies and consumers can be viewed in two perspectives, (being the benefits and drawbacks).

5.1.9.1 The benefits of competition to mobile phone users and operators in Ghana.

Both mobile phone operators and users benefit significantly as a result of competition in the industry. Findings of this study revealed that in a competitive environment, the bargaining power of customers is very high because of low switching cost in the industry. There are attractive substitutes available to the buyer even in the form of keeping the same cell phone but changing service provider. To make matters worse is the recent introduction by the Ministry of Communication and National Communication Authority (NCA) number portability whereby subscribers can switch to a different network operator without necessarily changing their existing numbers. This makes it very difficult for the market players to retain their customers. Also, in a competitive environment the bargaining power of suppliers is at the low level because of the nature of inputs for the business. Thus, with the deregulated and friendly environment by the government of Ghana, the industry has become more competitive and quality service delivery focused.

Moreover, competition brings about innovations and good customer services. For instance, it was revealed that Airtel Ghana was the first mobile phone company in the country to start with number customization whereby customers could get connected by simply adopting the code number of Airtel and maintaining the rest of the seven digits of the already existing numbers of other networks. For example, if Mr. Hosni was on MTN with his mobile number as 024-3003414 and was interested in acquiring an Airtel number, all that he could do was to simply drop the MTN code 024 and to adopt the code 026 and his number would become 026-3003414.

It was indeed a good market entry strategy as this helped Airtel immensely to snatch some customers from their rivals such as MTN, Vodafone, Tigo and Expresso. Again among the five mobile phone companies operating in the country Airtel Ghana was the first company to introduce dual sim phones of their own into the market that enabled their customers to use their network together with the network of other service providers. Credit, Airtel Corporate Communication and Marketing Departments.

Competition also delivers benefits to consumers through lower prices, increased consumer choice and service quality. Moreover, liberalization will eliminate the dead weight costs of regulation. There is ample evidence that regulatory liberalization and increased competition encourage more rapid telecommunication infrastructure modernization. Sappington and Ai (2001). The study further revealed that, consumer choice will expand because customers will be able to purchase service from multiple

providers and providers will be driven to improve quality and to offer new bundle of services to differentiate themselves.

5.1.9.2 The Drawbacks of Competition on Mobile Phone Operators and Consumers/Users

It was found out that, although the cell phone subscribers are now more, still the threat of substitute products is high for the industry. Again it was revealed that, the market penetration is difficult, “In many cases, new entrants have had difficulties in taking any significant share of the market, let alone growing large enough to gain market power and become serious threat to the incumbent” Petrazzini (1996). Therefore, though the growth and potentials of the telecom sector look very attractive, it is still very risky for a new investor because the penetration in the market is very difficult. This probably explains why Globacom is finding it extremely difficult to fully launch its operations in the country.

Reports again indicated that due to fierce competition, the competitive rivalry is at its apogee. The very high level of the competitive rivalry among the cell phone companies is clearly observable. This is seen in the quality and aggressive advertising campaigns of these rivals which in itself is a manifestation of the battle of supremacy. Despite this situation, the study indicated that MTN Ghana Limited is the market leader.

It was also revealed that, some of the mobile phone operators under the cover of running promotions extort their customers. For instance some customers of Vodafone Ghana who went into the “2020-promotion” complained bitterly about the company taking some small portion of their credit anytime they attempted recharging their account.

Again most respondents complained that some network operators were discriminatory in their promotions. For instance, they complained of Airtel Ghana and Vodafone Ghana promotions that involved their customers talking to their relatives, friends and business partners in some specific countries outside Ghana at lower rates. Forgetting of the fact that it is not all users who have friends, relatives and business clients in those specified countries.

Finally, it was revealed that, mobile phone service providers as a result of competition communicate to their customer through short messages by heart, that is, irrespective of the time and place. A lot of respondents saw this practice as a source of worry and interference in their privacy.

5.1.10 Factors Affecting Consumer Switching Behaviour

According to Keaveney (1995) factors affecting consumer switching behavior in the service industry include. Core service failure, service encounter failure, price competition offers, ethical problem and involuntary switching. These same factors are applicable in the mobile service industry. The study revealed that about 44% of mobile phone users in the Kumasi Metropolis switch to other networks as a result of core service failure, 23% of respondents claimed they changed their services for reasons of price competitive offers, while 18% respondents changed their services as a result of service encounter failure, 11% of respondents indicated they switched to other networks due to

ethical problems and 4% of respondents are of the opinion that they had no alternative than to switch and their switching was therefore involuntary.

5.2 Conclusion

It is an undeniable fact that communication plays a very vital role in the way people live, work and play worldwide. Similarly, it contributes significantly to the socio-economic growth of every viable country in the world and Ghana not an exception.

This research work has confirmed the impact of competition on customer services in the mobile phone service industry in Ghana. It was carried out with absolute care and diligence and it shows that competition plays a very crucial role in the lives of both mobile phone service providers and consumers in the country. Though there are some setbacks in the industry due to competition, on one hand, on the other hand, competition is associated with some immense benefits that are being enjoyed by both the mobile phone service providers and consumers.

In order to continue enjoying these benefits much more improvement is still desired. These include: reduction in tariff, improvement in the level of services delivered to the consumers in the industry, provision of quality and durable products, building more cell-sites and wide coverage of the nation especially (the rural area) and above all better connection among the service providers so as to ease the interconnectivity problem being faced by subscribers.

The Ghanaian mobile phone market is so much porous that it lacks any protection whatsoever. Consumers are therefore at the mercy of service providers. The government and for that matter the NCA have to embark on development of quality-of-service frameworks which requires that regulators implement a methodical process for determining regulatory objectives, coordinating with other oversight agencies involved in quality regulation, defining appropriate quality standards, and obtaining information from utility companies and their customers to establish those standards.

Regulators can then develop quality-of-service measures and identify the most effective incentive plan for their initiatives. Minimum standards using pass-fail criteria are often used to assess a company's efforts in achieving quality-of-service targets. However, minimum standards are fairly crude methods of evaluating company performance because they fail to make distinctions for various levels of substandard and superior service. Regulators will more effectively align incentives with service improvements if they use performance-based regulation composed of benchmarking, asymmetric reward scheme, and price-cap or revenue-cap formulas that incorporate service quality. If designed properly, overall service quality indices may be the most effective way to compare similarly situated companies along a set of quality dimensions.

Quality has several dimensions and is valued differently by customer classes. For example, manufacturers are more likely to place a higher value on service reliability from an electric utility than its residential customers. In addition, certain attributes of quality

cannot be assessed objectively; therefore, quantitative measures cannot be applied to them.

In developing appropriate benchmarks to compare companies' service quality, regulators need to determine which type of measure (quantitative or qualitative) will most aptly capture the service to be evaluated. In addition, regulators should appreciate that inter-company comparisons will be complicated by exogenous factors affecting companies' service areas, such as population density, topography, and weather.

5.3 Recommendations

Having come out with these findings from the study, the following recommendations have been made for policy considerations by both the industry regulators such as the Ministry of Communication and the National Communication Authority (NCA) and the mobile phone services providers in the country, in order to enhance effective, quality service delivery and excellent customer services in the mobile phone sector.

Regulators will always have limited access to data on the mobile phone companies' core operations and performances. The most effective way to offset this disadvantage is to invite diverse views. Thus, stakeholders' participation is crucial to the development of an effective quality of service regime.

Again, the regulatory body and the mobile phone operators should see to it that quality services are rendered to the subscribers so that customers get value for the money spent on their products and services. This is because some of the companies exploit their customers in the name of promotion.

The mobile phone service providers should lower their tariffs and also ensure that there is better interconnectivity between them. When there is no good interconnection between all the operators, the subscribers feel the pain.

With the recent introduction of the number portability by the Ministry of Communication and the National Communication Authority, customers are likely to switch to other networks. Management of the various operators therefore need to introduce customer retention strategies to ensure that their customers are retained for some period of time.

Also, some of the mobile phone service providers in the wake to impress and build loyalty with their customers end up troubling them with short message as a means of communicating to them. Some respondents saw this practice as a source of worry. It is therefore recommended that these service providers be a bit ethical especially in the manner they send messages to their customers. They should at least respect customer time and privacy. It is further recommended that, Expresso, Airtel, Tigo and Vodafone increase their cell-sites and network coverage to cover most areas in the country especially the rural areas in order to avoid voluntary switching thereby losing some of their customers.

Moreover, Vodafone, Tigo, Expresso and MTN are recommended to do some benchmarking at Airtel in so far as the usage of dual-sim phone handsets is concerned. Airtel

did not lose anything when they introduced into the Ghanaian mobile market dual-sim phone to enable their customers use their services together with the services of other networks. In effect, the idea helped Airtel to acquire more subscribers.

Again, it is recommended that personnel at the call centres of MTN and Vodafone act swiftly in resolving customers problems, instead of customers hanging on the line for a long time listening to adverts being ran by the mechanism, since the essence of these facilities is for emergency purposes.

Finally, respondents complained of congestions at the few customer service centres of the various mobile phone companies in the Metropolis. It is therefore recommended that management of the various mobile phone companies in the country establish more customer service centres especially in the Kumasi Metropolis since this will ease the pressure and congestion in those offices in the Metropolis.

5.4 Recommendations for future research on the Ghanaian telecommunication industry.

It is recommended that future researchers interested in this area of study could further research into the following:

1. The socio-economic impact on users of Global Systems of Mobile Telecommunications (GSM) in Ghana.
2. Examine the impact of competition on customer satisfaction with regards to fixed lines.
3. Conduct a study on how customer service affects business in the Ghanaian telecom Industry.

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Appendix 1
KWAME NKRUMAH UNIVERSITY OF SCIENCE AND
TECHNOLOGY
FACULTY: INSTITUTE OF DISTANCE LEARNING
PROGRAMME: COMMON WEALTH EXECUTIVE MASTER OF
BUSINESS ADMINISTRATION

QUESTIONNAIRES SCHEDULE FOR MOBILE USERS

Questionnaires schedule for mobile phone users in the Kumasi Metropolis. Respondents are expected to answer the questions by providing ticks, words or short statements where appropriate. The confidentiality of your responses is fully assured, for the data collected would be used mainly for academic purpose.

1. Age: Below 20 (), 20 – 30 (), 31 – 40 (), 41 – 50 (), 51 – 60 (), Above 60 ().
2. Have you received any formal education? Yes (), No ().
3. Level of Education: None (), Basic (), Junior High school (), Senior High School (), Tertiary ().
4. What is your occupation?
5. What type of mobile service(s) do you use? Expresso(Kasapa) (), MTN (), Tigo (), Vodafone (), Airtel (Zain) ().
6. Which type(s) of service(s) is provided you by your mobile operator?
Calls (), Text Messages (), Voice Messages (), Banking services (), others ()
pleases specify
7. Do you purchase credit for yourself? Yes (), No (), others () please
specify.....
8. If yes, on the average how much talk time do you purchase or consume in a week?
¢2.00 (), ¢5.00 (), ¢10.00 (), ¢15.00 and above ().

9. Averagely, how many calls do you make in a day? 1call (), 2calls (), , (3calls,(
) 4calls and above ()
10. What is the average duration of your
 calls?.....
11. What makes you like your operator(s): Bonus Scheme (), Free Air Time Given ()
), Free Night Calls (), Free zone bonus (),
 Free Messages (), Wider Coverage ().
12. How do you get to know of new services provided by your operator?
 Calls from operator (), Text Messages (), Advertisements (),
 From Friends ().
13. How would you rate your service provider in terms of customer service delivery?
 Excellent (), Very good (), Good (), Averagely good (), Poor ()
14. What don't you like about your operator? Poor Network (), High cost of calls ()
), High cost of Messages (), others () please
 specify.....
15. Based on question 10, do you think your network operator is aware of these
 shortfalls? Yes (), No (), I don't know ().
16. Have your operators made any attempt to solve these problems? Yes (), No (),
 I don't know ().
17. Do you intend to change your network operator in the near future? Yes (),No(
 Why.....?
18. Would you recommend your current operator to anyone? yes (), no()
 why.....?

19. Supposing your operator brings out new products such as satellite or broadband would you patronize? Yes (), no ()why.....?

Thank You

**KWAME NKRUMAH UNIVERSITY OF SCIENCE AND
TECHNOLOGY
FACULTY: INSTITUTE OF DISTANCE LEARNING
PROGRAMME: COMMON WEALTH EXECUTIVE MASTER OF
BUSINESS ADMINISTRATION**

**QUESTIONNAIRES SCHEDULE FOR MOBILE PHONE
OPERATORS**

Respondents are to provide answers to the following questions by providing a tick, word or a short statement where appropriate. The confidentiality of your responses is fully assured for the data collected would be used mainly for academic purpose.

1. Which net work service do you provide? Espresso (Kasapa) (), MTN (), Tigo (), Vodafone (), Airtel (Zain) ().
2. How long have you been operating in Kumasi? Years: 1 - 3 (), 4 – 6 (), 7 – 9 (), 10 or more ().
3. In which department are you?
4. Which category of level are you? Management staff (), Network staff ()
5. How many sub offices do you have in Kumasi?

6. What services do you provide for your customers? Calls (), Internet (), Text Messages (), Voice Messages (), Banking Services (), others (), please specify.....
7. Averagely how many new customers do you register in a day?.....
8. Why are these customers attracted to your service?.....
9. Do you normally hear complaints from your customers? Yes (), No ().
10. From what source do the complains get to you? Customers making calls (), Field operatives (), Grape vine ().
11. How fast do you deal with these complaints? 30mins (), 1hr (), 24hrs (), 1weekand above ().....
12. How many operatives (sales agents) do you employ?.....
13. Do you provide them with any training before they start operating?

Yes (), No ().why?.....
14. Have you lost any customers within the last six months or one year? Yes (), No ().
- 13.Why do you think customers are leaving your network for others?.....
14. Why do you think customers like your network?.....
15. What methods do you adopt in order to retain your customers?
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THANK YOU