Constraints to Expansion of the Telecommunication Sector in Kenya

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Abstract
The telecommunication industry is among key economic pillars of many economies today. Through the growth of this industry, developing nations such as China and India have been able to record massive economic growth. This study has established that for Kenya to match the economic growth rates being experienced ion other developing nations there is need to spur the growth of the telecommunication industry. The study thus focused on determining the challenges that are hindering the Kenyan telecommunication industry from attaining growth rates experienced in other countries. Possible solutions to these challenges were also proposed. The study divided the challenges into industry based and customer based challenges. The study was conducted across all telecommunication service providers in Meru County, Kenya with results being generalised to represent the entire industry situation. Assessed industry based challenges were inter-firm competition and changing technology. The two challenges were analysed using a 3-point Likert scale to determine the extent to which they affected growth of the telecommunication industry; both factor recorded average weights of 2.6 implying that the two factors affected the industry growth almost to a similar extent. Assessed customer based challenges were inadequate customer loyalty and changing tastes and preferences. Based on 3-point Likert scale, it was established that changing customer tastes and preferences with an average weight of 2.51 affect the industry's growth than changing customer loyalty, which recorded an average weight of 2.41. The research also established that if implemented, the proposed solutions to both customer - based and industry based challenges would result to increased growth of the telecommunications industry.
Keywords: Telecommunication sector, Industry based challenges, Customer based challenges

1.0 INTRODUCTION

1.1 Background of the study

The telecommunication industry is among the pillar industries to the economic wellbeing of many countries today. The Chinese telecommunication industry in 2011, for example, contributed about 16 percent of the total Chinese Gross Domestic Product (GDP) as compared to 9% contributed by the Kenyan telecommunication industry for the same period (Communications Commission of Kenya, 2012; Venkatram & Zhu, 2012). Research has established that the telecommunication industry is not only a major contributor to the economic growth of countries, but also it is a main growth pillar for other industries (Venkatram & Zhu, 2012). In fact, many developing nations have experienced increased growth in their economies due to the impact of this sector. For example, the Chinese and Indian economies are among the main economies that have benefitted from the expansive growth of the telecom industry in the last decade.

Although a similar trend is emerging in the African continent, the telecommunication industry has not been able to achieve such economic transformation observed in Chinese and Indian economies. In the east African region, for instance, growth of the telecom industry has not been as rapid as anticipated. In addition, most of the telecom firms in this region are multinational industries which employ growth strategies of the origin countries. This has resulted to poor growth of most of these firms with some collapsing entirely (Institute of Economic Affairs, 2002). The telecommunication industry is also highly volatile due to its high dependence on technology and the rapid growth rate it has been experiencing over the past few decades. In Kenya, the number of people depending on telecom services has been increasing rapidly since the inception of mobile phones thus depicting the significance of the telecom sector in the Kenyan economy. Despite this increase in demand, the telecommunication sector in Kenya has not been able to match the growth rates achieved in the Chinese and Indian economies.

The Kenyan telecommunications industry has been a focus study unit for a number of scholars in the past decade. Letangule & Letting (2012) conducted a research to establish how innovative strategies affected the performance of firms in the telecommunication sector and established that indeed, innovative strategies affected the profitability of the firms. Kemunto & Atieno (2011) established that the telecommunication industry in Kenya faced a myriad of challenges in its management structures, and hence pointed this as one of the reasons for poor growth in the sector. Other researchers who have studied the Kenyan telecom industry have focused on the contribution of the sector to economic growth. None of these studies has focused on the marketing aspect of the industry and therefore, this research studied the marketing based challenges facing the telecommunication industry growth in Kenyan.

1.1.1 Telecommunication sector in Kenya

Safaricom Limited, Airtel Networks Kenya Limited, Essar Telecom Kenya Limited and Telkom Kenya (Orange), are the key mobile services operators in the Kenyan Market today (CCK, 2013). Telecom Kenya was established in 1999 after it split from the Kenya Postal services. Airtel Networks Kenya Limited was established in 2000 as Kencell. The organization has undergone various rebranding over the years in a bid to increase its market share in the country. The first rebranding was conducted in 2006 and changed the organization's brand name from Kencell to Celtel. The second rebranding in 2008 changed the organization's name from Celtel to Zain and finally, the last rebranding in 2010 changed the organization's name from Zain to the current name; Airtel Kenya. Safaricom was established in 1997 as the premier mobile service operator in the Kenyan market and has since then remained atop of the industry in terms of market share and revenue generation. Essar Telecom Kenya Limited established in 2008 and operates as YU Mobile in the Kenyan economy. The four operators offer similar services of voice, data, messaging, money transfer, and mobile banking hence making them key market rivals (Communications Commission of Kenya Report, 2010).

In the recent past, the firms have been experiencing some growth in terms of market share, but this has mainly been recorded among the urban population. According to the CCK Report (2012), Orange Kenya and Airtel Kenya increased their growth rates by 4.5% and 1.7% respectively. On the other end, Safaricom and Essar telecommunications recorded a negative growth rates in the period, registering losses in market share of 6.0% and 0.3% respectively. Statistics from CCK further point out that most of the Kenyan mobile subscribers comprising of at least 73% of all subscribers use the voice and message services with 15% using mobile money transfer and banking services. Only 12% of the population was found to use internet and blackberry services in the country (Communications Commission of Kenya, 2012).

1.2 Statement of the Problem

This study sought to establish the marketing related challenges that are hampering the telecommunications industry in Kenya from achieving the growth rates recorded in other countries such as china and India. A careful analysis of the Kenyan telecom industry reveals that there are a number of marketing related challenges such as stiff competition, changes in consumer tastes and preferences, poor communication strategies, and inadequate marketing research facing the Kenyan telecommunications industry. By executing this study, the researcher was able to suggest solutions for the purpose of improving the telecommunication industry growth rates. Venkatram & Zhu (2012) established that the telecommunication sector is a vital component of any economy. Through the growth of the telecom sector, various economies such as the Chinese and Indian economies have experienced positive transformation. In order to achieve such economic growth in the Kenyan economy, it is essential to focus on improving the major industries such as the telecommunication industry. However, this cannot be achieved without solving the challenges hampering it from achieving the desired growth rates.

1.3 Purpose of the Study

The purpose of this study was to establish and define the challenges facing the Kenyan telecom firms in their expansion strategies. The study achieved this by examining the current market situation to identify the main challenges that firms in this industry are facing from a marketing perspective. The study also attempted to suggest solutions that the Kenyan telecommunication industry could adopt to solve these solutions by assessing the solutions that have been used in other countries.

1.4 Objectives of the Study

i. To investigate the extent to which industry based challenges hinder expansion of the Telecommunication Sector in Kenya
ii. To investigate the extent to which customer based challenges hinder expansion of the Telecommunication Sector in Kenya
iii. To assess the measures that could be undertaken by the telecommunication sector in Kenya to deal with identified challenges

1.5 Significance of the study

The study was intended to give a clear understanding of the challenges facing the Kenyan telecommunication sector. This study focused on establishing why the telecommunication sector in Kenya is growing at a lower rate compared to telecommunication sectors of other economies such as China and India. Through this research, the management of firms in the Kenyan telecommunication sector comprehended better the challenges that are limiting their expansion strategies from a different perspective. These enabled them device better ways of dealing with these challenges in the future and ultimately boost the growth of the telecommunication sector. In addition, the study is also of great importance to other firms; both local and international that may be intending to venture into the Kenyan telecommunication industry. Ultimately, this study played an important role in achieving a double digit economic growth through streamlining the telecommunication sector which is a major contributor to the nation's economic growth.

1.6 Scope of the study

The study was carried out in regional retail offices of the main telecommunication firms within Meru County since it is challenging to cover the regional offices countrywide. The researcher used self-administered questionnaires to interview the management and employees working in the target regional offices. Findings generated from these regions were generalized to represent the entire industry situation.

2.0 LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of the literature related to the purpose of the study. The chapter is organized according to specific objectives in order to ensure relevance to research problems. The review was undertaken in order to eliminate duplication of what has been done and provide a clear understanding of existing knowledge base in the problem area. The literature review is based on authoritative, recent, and original sources such as journals, books, thesis, and dissertations.

2.2 Challenges hindering the expansion of telecommunication firms in Kenya

2.2.1 Industry based challenges

Inter-firm competition: Inter-firm competition refers to an ongoing zero-sum battle for customers, resources, and other rewards between firms in a similar industry (Crane, 2005). Inter-firm competition can be demonstrated using the islands model which holds that firms compete for a limited number of growth opportunities. The intensity of inter-firm competition is dependent on factors such as entry barriers, exit barriers, organization size, industry regulation and policies, and the organization's brand image. Based on assumptions of game theory, inter-firm competition is a by-product of the rivalries between incumbent firms and new entrant firms (Salop, 2002). Academic literature has established that competition in an industry can create or deter growth of firms. Bengtsson & Kock (2000), observed that rival firms could benefit from the growth of each other. Rival firms can benefit from each other in cases such aspects as production of complimentary products, spillovers that emanate from generic advertising and lobbying, and increased bargaining power against suppliers. In addition, firms that exist in an industry that is performing well, also benefit by imitating the success strategies that have been employed by their counterparts.

Research regarding inter-firm competition has not yielded any progress in establishing yardsticks for measuring competition within an industry. A study conducted by Storey (2000), found no empirical evidence that shown any significant effects of competition on a firms a growth. A different research by Geroski & Gugler (2004), found that competitive rivalry between firms can only be measured through the effects that competition has on a firm's employment growth rate. In other realms, entrepreneurs have identified competition as the main hindrance to the achievement of a firm's objectives (Robson & Obeng, 2008).

Price wars: In today's marketing strategies, companies begin by identifying the consumer needs in order to ensure delivery of customer need matched satisfaction. Primarily, marketing aims at improving customer's quality of life by ensuring availability of products at affordable prices (Busse, 2002). Price is a critical component in the marketing of all products. Price in marketing has been used to achieve various goals such as increased market share, increased sales volume and to reduce competition. As a result, the contemporary marketing managers in similar industries have resulted to using competitive pricing as a means of beating competitors in the industry. Often, this competitive pricing amongst key industry players has resulted into severe price wars.

According to Busse (2002), price war refers to an economic situation in which there is intense competitive rivalry amongst key players of an industry, often accompanied by a series of price reductions. During a price war, one industry player lowers there prices and this is immediately matched by key competitors. A further reduction in prices, results to a similar move by the competitors. Studies have established that such multi-lateral price deductions are advantageous to consumers as they can take advantage of the lower prices. However, to the involved companies, price wars are adverse as they cause reduction in the profit margin of the companies which threatens their growth strategies and ultimately their survival.

Ideally, price wars in the long-term tend to benefit the dominant firms in the industry. In the verge of reducing prices, smaller firms are forced to operate below their break even points which eventually force them out of the industry. When such firms exit the industry, the dominant firms benefit from an increased market share coming from the closed firms. Eventually, the dominant firms revert to instituting the high prices before the price war or in some cases they may settle at higher prices than that before the price war. Price wars ultimately lead to unsustainable prices that lead organizations to focus more on competition than on customers (Griffith & Rust, 2003). Academic literature has established that industries that characterized by such price wars often face growth challenges (Griffith & Rust, 2003). Price wars cause firms to stagnate (Elzinga & Mills, 1999), collapse, and lose focus on addressing customer needs. This trend has been eminent in the Kenyan telecommunication industry since its inception.

2.2.2 Customer Based Challenges

Inadequate customer loyalty: Largely, business growth depends on improving customer loyalty behaviour. Research as established that companies that have a higher customer loyalty usually experience faster business growth than companies with lower customer loyalty. According to Saks (2001) customer loyalty, refers to the degree to which customers experience positive feelings for, possess allegiance to, and exhibits positive behaviours towards a given company. The biggest concern for many business, regards the criteria through which customer loyalty is measured. Various models for measuring customer loyalty exist. The model employed in this research will measure customer loyalty using three basic aspects: retention, advocacy, and purchasing. The three perspectives help organizations learn more about their customers and formulate better strategies that accelerate business growth (Saks, 2001). Customer retention refers to the extent to which customers remain within a company without defect to competitors (Keiningham, Lerzan, Cooil, & Andreassen, 2008). Customer retention and defection rates are important loyal metrics to any organization as they allow for determination of such variables as increase in market share, and decreases in market share. In Kenya, the telecommunication industry comprises of four major operators. Each firm has a determined market share, the rate of customer retention among the operators is usually determined from the CCK reports that are published on an annual basis.

Customer advocacy refers to the extent to which customers advocate for a company's products or brand to the public (Keiningham, *et. al*, 2008). Under this metric, companies experience growth when their customers promote and recommend the customers products and brand to other people, who eventually become customers. In the telecommunication industry, this is achieved when current customers influence their families and friends to become subscribers to a given company. Customer purchasing refers to the extent to which customers increase their purchasing behavior because they believe in the product of the company (Keiningham, *et. al*, 2008). Increased customer purchasing behaviour in the telecommunication sector is evident when the companies raise more revenue through the sale of their services.

Changing customer tastes and preferences: Consumer tastes and preferences are vital to the success of any marketing strategy. Through the evaluation of the consumer tastes and preferences marketers are able to make important decisions regarding brand positioning, market segmentation and market targeting. Over the years organizations have been able to satisfy unique customer need through the study of customer tastes and preferences. To determine customer tastes and preferences, marketers use various taste tests. Through such tests organizations are able to design promotional messages that prove superiority of one's brand against the competitors' to the target market (Sanjoy & Oded, 2001).

In times of changing consumer tastes and preferences, organizations embark on instituting new strategies that match these consumer changes. In certain cases, changing with changing customer tastes and preferences may be expensive to an organization thus limiting its ability to grow. Such trends may affect all firms in a given industry thus resulting in poor growth of the entire industry. Sanjoy & Oded (2001), observed that industries that are dependent on technology are the worst hit by changing consumer tastes and preferences. Ideally, when consumer tastes and preferences in a technology based industry change, the firms are forced to acquire new infrastructure that match the prevailing trend. Eventually, such firms redirect funds meant for organizational growth to meeting the changing market trends.

In Kenya, firms in the telecommunications sector, are continuously being forced to adapt to new changes in the industry which emanate from the changing consumer tastes and preferences. For instance, following the launch of mobile internet in Kenya, consumers across the country are changing, to acquire internet enabled phones. Consequently, the mobile service providers have been forced to include data provision in their service packs (CCK, 2008). This has in past few years, seen the firms in the industry struggle to install new infrastructure such as fiber optical cables to match this change in consumer preferences. This study will thus help in determining the extent to which changing consumer tastes and preferences is affecting the growth of the Kenyan telecommunication industry.

2.2.3 Measures for dealing with the challenges

The telecommunication industry is evolving rapidly characterized by changing customer tastes and preferences, new technologies and new regulations. Many companies; however, have not undertaken to reshape their structures in ways that meet these new demands. As a result, the telecommunication firms fail to achieve their expansion plans leading to a low growth rate of the industry. In the light of this, various scholars have studied most of the challenges in the industry and proposed a number of solutions to counter the identified challenges.

Market segmentation is one of the identified strategies for dealing with expansion challenges. Segmentation refer to the process of subdividing a target market into groups of customers with similar needs and similar buying behaviours and designing marketing strategies to meet their needs in a competitive manner. Segmentation gives room for accountability and easier decision making regarding marketing strategies such as pricing, promotion, and distribution of the firm offers. Telecommunication services, as is the cases with other products need to be tailored to the specific needs of the target market; changes to customer needs and preferences to customer needs should be addressed and adjusted accordingly. Such can be achieved if the current organizational structures are made flexible in such a way that they allow freedom to innovative product development (Gil,Rodriguez-Ramos, Jaime, Winnewisser, Tomas, Dorofeev & Fairbrother, 2011).

Most telecommunication firms in operation today are multinationals. One major problem that multinational firms encounter in their expansion plans in other countries is integrating their operations to the needs of the local market. To address this issue, Gil, *et al.* (2011) propose that the multinationals enhance their group governance strategies. The multinational telecommunication firms need to find a way of integrating the various regions within their existing organization structures in a manner that allows them to respond to local market conditions while still maintaining adequate overall control. The firms should ensure that they establish their governance strategies in the local markets without jeopardizing the organization efficiencies or creating duplications. By achieving this the multinationals create an organizational matrix with articulated functions and ability to manage and allocate available resources efficiently.

Expansion of telecommunication firms is also shaped by globalization trends. Gil, *et al*. (2011) propose four strategies that the telecommunication firms can take to deal with this challenge. One, the firms need to build a networked organization that promotes cross-unit collaboration, use of new technologies, increases organizational flexibility and overcomes silo thinking. Through ensuring such, the firms stand better chances of improving their productivity, by increasing the value of the intangibles shared across the enterprise while lowering the costs associated with these exchanges. Secondly, the firms need to open their organizations and manage the ecosystem through advancing knowledge, talent, resources, and markets outside their current boundaries. This can be achieved by involving outside stakeholders such as customers, governments, and suppliers, in an undertaking to generate ideas, develop, and commercialize concepts. In addition, the firms can also build more networks of third party stakeholders as well as establishing new governance and organization models for partnerships such as alliances, mergers, partnerships and management contracts.

Third, the firms need to establish structure that foster innovation. Events such as customers migrating to newer technologies, shortened product life cycles, and shrinking core businesses should necessitate firms to look beyond their traditional strategies to find and capture new innovation opportunities. This can be achieved by incorporating specialists for incremental innovation band specialized teams into the existing organization. Continuous innovative initiatives and end-to-end steering can be used to instil an efficient mindset among the employees in order to reinforce their understanding of the organizations they work as evolving structures (Gil, *et al.,* 2011). Lastly, the firms should consider leveraging the international talent pool and upgrade skills to world-class levels. Multinational telecommunication firms can achieve this by tapping into the large untapped talents in new economies. These local talents possess the potential to scale the industry to higher growth rates since they enable the organizations meet evolving customer needs and technological trends.

Besides meeting new global innovation trends, growth cannot be achieved without leveraging on enhanced employee skills. *Gil, et al*. (2011) argue that telecommunication industries need to undergo transformations in functional and general management skills and enhanced leadership In order to master new technologies, tap into more sophisticated markets and reinvent current business models. In addition, other telecommunication firms are faced with personnel overcapacities that can only be addressed through corporate restructuring.

2.3 Theoretical Framework

This study will be based on Ansoff product portfolio matrix. The Ansoff product model is used by companies in strategy formulation based on their position in the product life cycle. Unlike other business strategy models, the Ansoff matrix does not focus on profitability or sales. Rather, the model focuses on providing options to firms when they wish to grow. Options obtained from this model help firms come up with effective product and business development strategies for increasing business growth (Hurt, 2009).

Table 1: The Ansoff Product matrix

	Existing Product	New Product
Existing Market	Market penetration	Product development
New Market	Market development	Diversification

Source: (Allen, 2006)

Based on the model, there are four strategies available to a firm that wishes to grow. Market penetration is the first option and it is undertaken by a firm that wishes to offer an existing product in an existing market. Under this option, firms seek to increase sales within the existing market in a bid to increase their market share. Strategies available to firms seeking to employ this option include turning triers into regular users, poaching competitors' customers and increasing consumption by the existing customers. The second strategy, market penetration, entails developing new markets for a firms existing products. This strategy is used by firms which have exhausted the current market and still want growth in their sales volumes. Firms using this option employ strategies such as identifying new target markets that possess similar needs with the existing customers. For instance, in the telecommunication sector this may imply opening new operations in new regions in the country, while offering the existing company products. Identifying new customers who would use the product in a different way, is the other major strategy used by firms using the market development strategy (Allen, 2006). For example, in telecommunication data service, this may entail targeting new customers such as cyber café proprietors and other organizations that use data services on a large scale basis.

Product development is the third growth option available to firms in the Ansoff product matrix. This strategy entails developing new products for the current market. The strategy is applicable in situations where a firm's existing product has reached maturity, and the firm sees the current market as still viable (Allen, 2006). The main strategies used by firms using this strategy; is producing products that are closely associated with the current product. For example, in the telecommunication industry, this may entail coming with other services that complement the voice services such as messaging and data services. Diversification is the last growth strategy available to firms in the Ansoff portfolio management matrix. Diversification occasions developing new products for a new market. This strategy has been ranked by analysts as the most risky compared to the other three options. The strategy is mainly employed by firms that have sufficient funds for expansion or by firms that foresee that the current product or venture may become irrelevant in the market (Allen, 2006). In this strategy, the telecommunication firms that seek to grow by offering a new product for an entirely new market may venture into completely new industries such as education or distribution.

2.4 Conceptual Framework

The conceptual framework for the study is presented in figure 2.1 below.

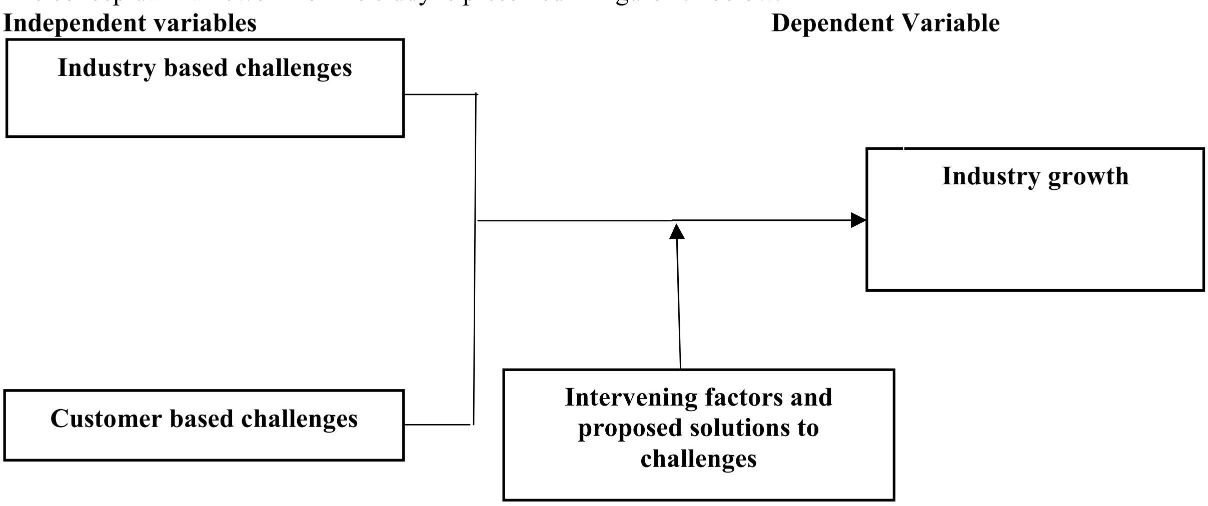


Figure 2.1: conceptual framework

Industry growth is measured in terms of increased market penetration, increasing market share and increased firm revenues and sales volumes. This study assumes that growth is influenced by two main factors, industry based factors and customer based factors. The industry based challenges highlighted in this study are inter-firm competition and price wars. Together these factors reduce the industry's attractiveness. Reduced industry attractiveness implies less profit margins for operators in the industry. High inter-firm competition and price wars leads to low market shares and low profit margins for individual players. Firms are forced to commit their expansion funds into beating competition by spending more on promotion; hence, focusing less on growth plans.
Changing consumer tastes and preferences and inadequate customer loyalty are the two main customer based factors that have been identified in this study as influencing growth of the telecommunication industry. Changes in consumer tastes and preferences are highly dynamic and force firms to tag large amounts of capital in conducting R&D and innovation, which would otherwise be used for expansion. In adequate customer loyalty affect individual firms planning strategies. Customers keep hoping from one provider to another making it hard for firms to predict future plans with proximity. The intensity of these challenges is also determined by intervening factors such as political factors and regulation body policies. In addition, the solutions that individual firms employ in mitigating these challenges determine the future of the telecommunication industry growth.

2.5 Empirical Review

Various researchers have identified the telecommunication sector has major study area, with majority focusing the developing economies of China and India. A research conducted by Venkatram & Zhu (2012) in China and

India, found the number of subscribers, technology innovation, and government regulation and policies as the main factors that are contributing towards the growth of the telecommunication sector in these countries. The number of subscribers has in historical studies shown correlation to contributing industrial revenue. Technology innovation and government regulation and policies have been found to be the main factors affecting the industry to a great extent. Peilei (2006) found out that innovation and self-developed technologies to be key factors that local firms adopt to catch up with established multinational corporations. Usually, established multinational firms take up most of the high performance target market segments leaving low performing segments to the local companies. Currently, however, the local firms are pushing towards getting to the multinational levels through increasing their networks both locally and globally.

Other studies in the topic have found the operators performance as also a key determinant of the firm's growth. Individual operator's performance determines a firm's customer base as well as its ability to sustain it. In deed the researchers have singled out the quality of customer service to be the single most determining factor towards the growth of the telecommunication industry in revenue terms. Customers are the main determinants of an organization's existence. Through the customers, firms are able to generate revenues that are essential in maintaining their growth strategies to match international standards. Customer attraction and retention requires firms to employ intelligent strategies that guarantee them of a competitive advantage in the industry. Firms in the telecommunication industry thus need to ensure they provide quality customer service in a bid to improving their general industry performance.

2.5.1 The Chinese Telecommunication Industry

In China, competition has also been found to be a major determinant to the growth of the telecommunication industry. Research conducted in the country has established that limited increase in competition in the Chinese telecommunication industry, has led to decreased quality services in the sector. To ensure growth of the industry, the Chinese government through the Ministry of Information Industry (MII) has also committed to publicizing the industry's quality records of all key mobile telephone service operators (Pangestu & Mrongowius, 2002).

The MII receives and publishes all notices and complaints from customers at least every three months. All service quality reports submitted by the telecommunication agencies at least twice in every year. All results from surveys and other evaluations of customer levels of satisfaction are published annually after such information has been collected and analyzed. In addition, the MII has also provided for the publishing of all other contingent information relating to the telecommunication industry as often as they occur to ensure consistency and adaptability. Telecommunication firms that fail to provide quality services in China are either fined or their licenses withdrawn by the MII. A statement from the Chinese Information and industry minister in 2006 stressed that increased competition is essential to increased quality of service in the industry (Ministry of Information and Industry, 2001).

In the last quarter of 2002, the MII received 1305 complaints and compliments. Of these total cases, 92 were investigated and found that 44 were service quality related and 38 billing inquiry related. These results were then used in the evaluation of the individual firm performances in the country. The China Mobile Communication Company (CMCC) was the worst performer with 33 complaints on its record. China Telecommunication (CT), followed closely with 32 complaints followed by Unicom with 19 complaints, and Jitong was last in the list with 2 complaints (MII, 2001).

In terms of growth, the Chinese mobile telephony has been increasing significantly since GSM networks were introduced in the country in 1995. With the introduction of domestic and international roaming capabilities, mobile subscribers increased exponentially from 3.6 million in 1995, to 300.6 million in mid-2009. Following the introduction of pre-paid cards, the numbers have further increased to more than 350 million subscribers (MII, 2001).The mobile telephony penetration rate in the country stands at 88.2% with a 20% total growth rate. A global research in the industry has established that these rates are the highest ever recorded in the world since that recorded in the United States between 1993 and 1998 (Pangestu & Mrongowius, 2002). Presently, the Chinese telecommunication industry serves more 1.3 billion people in the country making it the world's largest telecommunication network in the world in terms of network coverage and number of subscribers.

2.5.2 The Kenyan Situation

Based on CCK statistics for the last quarter of 2011/2012 financial year, mobile telephony growth in the Kenyan market recorded a 4% growth rate. This saw the number of mobile subscriptions in the country rise from 28 million in the last quarter of the previous year to 29.2 million. In the second quarter of the 2012/2013 financial year the sector recorded a two percent cumulative growth rate. According to the statics presented by CCK, presently, the total mobile subscribers stand at 30.7 million with a 78% mobile telephony penetration (Communications Commission of Kenya, 2012;2013)

Compared to the statistics presented from the Chinese economy, the Kenyan industry has been viewed by a number of analyst as not matching to global trends. Analysts have also criticized the industry competitiveness citing market dominance by Safaricom a possible cause of the industry's poor performance. Data from CCK (2013), shows that Safaricom is the industry's leader with a market share of 64.5 percent, with

Airtel limited coming a distant second with a 16.9% market share. Essar telecommunications and Telekom Kenya came bottom of the industry with market shares of 10% and 8.1% subsequently.
However, the Kenyan telecommunication industry has beaten other global telecommunication industries in the aspect of mobile money transfer services. More than any other country globally, Kenya has the largest number of mobile money transfer subscribers with about 22 million active subscribers (Communications Commission of Kenya, 2013). As analyst point out, the mobile money transfer service, is an innovative product that has played a vital role in the growth of the industry. In addition, the analyst point out that the service is likely to bring forth more growth in the industry, if the current subscription rates are maintained (Itonso, 2013).

2.6 Research Gaps

Most studies on the challenges facing the telecommunication sector in Kenya have mainly focused on the economic challenges hindering the industry from achieving growth. In addition, most of the researchers in the topic have not presented any comparison analysis of the Kenyan telecommunication growth rates with that of other countries globally. This, thus necessitates a need for research to be carried out in the sector to determine other challenges other than economic challenges that are hindering the expansion of the telecommunication industry vis-à-vis that of other countries.

3.0 METHODOLOGY

3.1 Introduction

The objective of this chapter is to show how data was collected and analyzed. The study sought to determine the challenges hindering the growth of the telecommunication sector in Kenya with samples taken from Meru County.

3.2 Research design

A research design is a framework used in conducting the market research for a project. The design detailed the procedures used in obtaining the information that helped structure and solve the marketing research problems (Panneerselvam, 2004). The study employed a descriptive research design. This design was chosen since it attempts to describe, explain, and interpret the current situation of the research problem. As such, this design enabled for the thorough analysis of the research problem by analyzing both qualitative and quantitative sources of data.

3.3 Target Population

The study targeted the management and employees of the main telecommunication service providers in Meru County, Kenya: Safaricom limited, Airtel Kenya limited, Orange, and Essar telecommunication limited. The target population is spread out through Kenyan's main towns; hence its selection ensured that the study is representative. In addition, this population was chosen since it possess firsthand information regarding the topic of study.

3.4 Sample size

This was determined using the sample size determination formula proposed by Yamane (1967)

$$n = N / [1+N (e)^2]$$

Where,

n→ the desired sample size
N→the target population
E →the degree of accuracy expressed as a proportion at .05

Using the formula on the target population,

$$n = 56 / [1 + 56 (0.05)^2]$$
$$= 49 \text{ respondents}$$

The 49 respondents were selected randomly from the target population using the criteria shown in table 3.1

Table 3.1: sample size selection

Organization	Population	Sample size
Airtel networks limited	16	16/56×49 = 14
Safaricom limited	18	18/56×49 = 16
Telecom Kenya	12	12/56×49 = 10
Essar telecommunications limited	10	10/56×49 = 9
		49

3.5 Methods of data collection

Data used for this research was obtained using both primary and secondary sources. Primary data was collected from the target population using questionnaires. The questionnaire comprised of structured and unstructured questions to ensure flexibility of responses. To ensure clarifications to unclear questions and responses, the questionnaires was administered orally. Moreover, this ensured a thorough discussion of the problem area ensuring that the topic is covered adequately. Secondary data was obtained from books, peer reviewed journals, newspapers, and online sources.

3.6 Data analysis and presentation

The collected data was analyzed by use of simple descriptive statistics. This made it possible for the researcher to meaningfully describe a distribution of scores or measurements using Statistical Package for Social Sciences (SPSS) and Microsoft Excel. The two were used to develop the analysis of the findings by generating graphs, tables, and charts used in the presentation of the findings. The interpretation of the data was based on the conceptual framework and literature review. Overall findings of the study were used to determine the challenges affecting the expansion of the Kenyan telecommunication industry.

4.0 RESULTS AND ANALYSIS

4.1 Introduction

This chapter provides a detailed analysis of the research findings obtained from questioners administered to the Kenyan telecommunication firms in Kenya, Meru County. Analysis is made in four main five main sections. The study mainly utilized descriptive statistics to provide simple summaries about the sample characteristics. Where possible the data obtained is also presented in graphs and charts as appropriate.

4.2 Response rate

In total 49 questionnaires were dispatched across the four telecommunication firms in Meru County, Kenya. Of the 49 total administered questionnaires, the researcher managed to collect 43 questionnaires, which represents 87.76% of the total sampled population. A summary of the response rate is presented in table 4.1 below.

Table 4.1: Response rate

Firm	Administered questionnaires	Collected questionnaires	Response rate
Airtel networks	14	11	78.57
Safaricom Limited	16	14	87.50
Telecom Kenya Limited	10	10	100.00
Essar Limited	9	8	88.89
Total	49	43	87.76

The study targeted the telecommunication workers in both management and general employee positions. The profile of companies that participated in the study is summarised and presented in table 4.2 below.

Table 2.2: Profile of respondent companies

Firm	Collected questionnaires	Management	General Employees	Management proportion (%)	Employee proportion (%)
Airtel networks	11	2	9	18.18	81.82
Safaricom ltd	14	3	11	21.43	78.57
Telecom Kenya	10	1	9	10.00	90.00
Essar ltd	8	1	7	12.50	87.50
Totals	43	7	36	16.28	83.72

Of the total collected questionnaires, there were 7 respondents from management positions and 36 respondents were general employees representing 16.28% and 87.72% of the total responses respectively.

4.4 Industry check

Table 4.3: Industry check

Reponses	Frequency	Percentage
Strongly disagree	3	6.98
Disagree	9	20.93
Agree	21	48.84
Strongly agree	10	23.26
totals	43	100.00

Based on the research findings, only 6.98% of the total respondents disagreed strongly that the Kenyan telecommunications sector is growing at a slower rate compared to other developing countries. 20.93% of the total respondents' disagreed with the statement, 48.84% agreed that the sector is growing at slower rate, while 23.26% of the respondents strongly agreed with the statement.

4.5 Challenge analysis

4.5.1 Customer based challenges

Table 4.4: Do Customers affect expansion of the telecommunication industry?

Response	Frequency	Percentage
Yes	32	74.42
No	11	25.58
Totals	43	100.00

Approximately 74.42% of the respondents agreed that customers had a significant influence on the expansion of the Kenyan telecommunication industry. Only 25.58% of the total respondents believed that customers did not affect the telecommunication industry growth. Out of the 74.42%, respondents who said yes, 56.25%% of the respondents said that customer loyalty was hindering the industry's growth while the remaining 43.75% said that changing customer tastes and preferences were responsible for the industry's slow growth as shown in table 4.5.

Table 4.5: If yes, specify the customer based factor affecting expansion of your firm

Response	Frequency	Percentage
Customer loyalty	18	56.25
Changing tastes and preferences	14	43.75
Totals	32	100.00

The extent to which the identified challenges affect expansion of the telecommunication was analyzed using a 3-point Likert scale as shown in the table below. From the table, it is evident that customer tastes and preferences with a weighted mean of 2.51 affect expansion of the industry more than customer loyalty, which recorded a mean of 2.41.

Table 4.6: Likert scale showing the extent to which the identified factors affect expansion of the industry

Weights/Activities	Largely	Slightly	Not at all	∑f	∑f w	Average weights
Customer loyalty	24	13	6	43	104	2.41
Customer tastes and preferences	27	11	5	43	108	2.51

Average weights ranked on a 3-point scale, with 1— not at all, 2— slightly and 3— largely

4.5.2 Industry based challenges

In this section, the study aimed at determining whether industry based challenges were affecting the telecommunication sector growth rates in Kenya. The first question required respondents to state whether industry based challenges affect growth of the telecommunication sector or not. Responses were as represented below. Majority of the respondents 83.72% said that industry based challenges were affecting the expansion of the industry while 16.28% of the respondents said that the industry based challenges were not affecting expansion of the industry.

Table 4.7: Do industry based challenges hinder the expansion of the telecommunications industry in Kenya

Response	Frequency	Percentage
Yes	36	83.72
No	7	16.28
Totals	43	100.00

Out of the 83.72% who said that industry based challenges were affecting growth of the Kenyan telecommunication industry, 58.33% felt that inter-firm rivalries was responsible for the industries slow growth rate; only 41.67% of the respondents said that the slow growth rate was due to rapid changes in technology.

Table 4.8: If yes, specify the factors that could be affecting expansion of your firm in Kenya

Response	Frequency	Percentage
Inter-firm competition	21	58.33
Changing technology	15	41.67
Totals	36	100.00

The extent to which the identified industry based challenges affect expansion of the telecommunication was analyzed using a 3-point Likert scale as shown in the table below. From the table, it is evident that the variables: inter-firm competition and changing technology affect the industry's growth equally with both recording average weights of 2.6 as shown in table 4.9

Table 4.9: Likert scale showing the extent to which the identified factors affect expansion of the industry

Weights/Activities	Largely	Slightly	Not at all	∑f	∑f w	Average weights
Inter-firm competition	27	15	1	43	112	2.6
Changing technology	29	11	3	43	112	2.6

Average weights ranked on a 3-point scale, with 1— not at all, 2— slightly, 3— largely

4.6 Proposed solutions

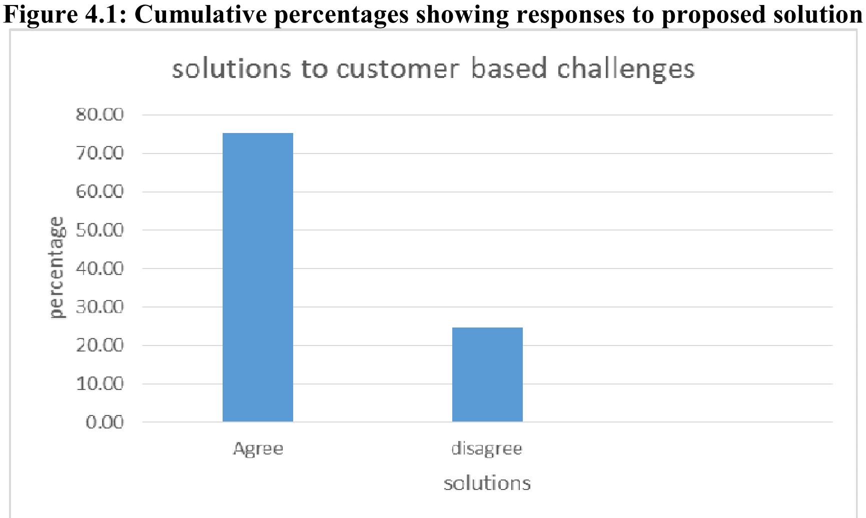
The study proposed a number of solution that if implemented could lead to the growth of the telecommunication industry to levels experienced in other countries. In this section, the respondents were supposed to agree or disagree with the proposed measures. The results for solutions to customer-based challenges were as tabulated in table 4.9.

Table 4.10: Please state your stand on the measure(s) that in your opinion provides the best solution to the customer based challenges identified in part 3 above

Strategy	Agree	Disagree	Totals
. Increased market segmentation, where customers are provided with services that meet their particular telecommunication needs. For example providing different tariffs based on customer demographics.	32	11	43
. Increasing the levels of service quality, through conducting customer surveys to determine the perceived quality of the services on offer	29	14	43
. Shifting to new marketing strategies that enhance levels of customer loyalty such as relationship and green marketing	36	7	43
Totals in percentage	**75.19**	**24.81**	**129**

Cumulatively, majority of the respondents agreed with proposed measures' representing 75.19%. Only 24.81% of the respondents disagreed with the proposed measures as shown in Figure 4.1

Figure 4.1: Cumulative percentages showing responses to proposed solution



Source: Researcher (2014)

Table 4.11: Please state your stand on the measure(s) that in your opinion provides the best solution to the industry based challenges identified in part 3 above

strategy	Agree	Disagree	Totals
i. Formulating and implementing regulations that control inter-firm competition in the Kenyan industry such that firms engage in fair completion.	37	6	43
ii. Increasing the amount of investment dedicated for enhancing technology and research and development in order to ensure that firms in the industry respond promptly to technological changes	35	8	43
Total	**72**	**14**	**86**

Cumulatively, majority of the respondents agreed with proposed measures' representing 83.72%. Only 16.28% of the respondents disagreed with the proposed measures as shown in Figure 4.2:

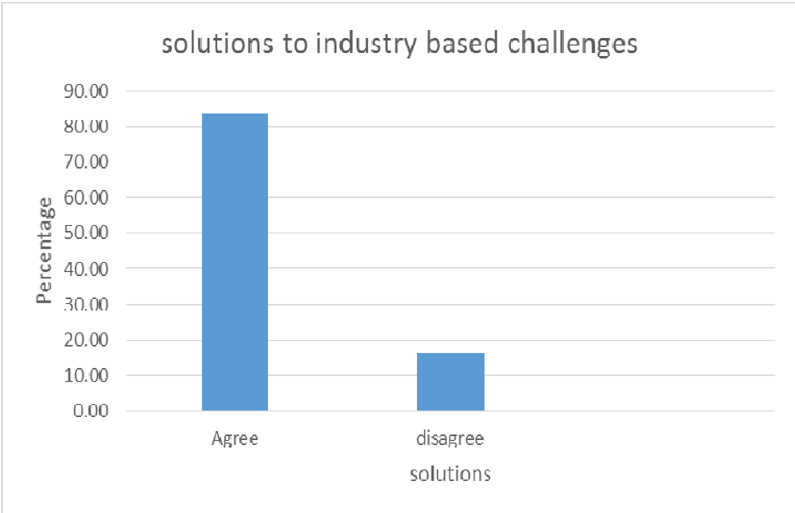


Figure 4.2: Cumulative percentages showing responses to proposed solution

5.0 SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

5.1 Introduction

The purpose of the study was to determine the challenges that are hindering the expansion of telecommunication firms in Meru County, Kenya. This chapter provides the summary, conclusions, and recommendations for the study based on the responses analysed in the previous section of the paper.

5.2 Summary

The research targeted the employees and management of the four major telecommunication firms in Meru County, Kenya: Airtel Kenya limited, Safaricom limited, Essar telecommunications, and telecom Kenya. The sample size was estimated at 49; however, due to unexpected circumstances, 6 respondents did not turn out and the researcher managed to collect 43 filled questionnaires. Out of the total respondents, majority were general employees recording an 83.72% turn out with management respondents recording 16.28% turnout. Majority of the respondents agreed that the Kenyan telecommunication sector was growing at a slower rate compared to other countries. In sum, those who strongly agreed and those who agreed recorded 72.1% turnout. Those who strongly disagreed and those who disagreed, together recorded 26.9% turnout. These results show that indeed, the telecommunication industry is not growing at anticipated rates.

Based on the analysed results it is also evident that customer based challenges, largely affect the expansion of the industry. Most of the respondents who said that customer based challenges affect expansion of the industry said that customer tastes affected the industry's growth more than customer loyalty, as shown by average weights recorded on the likert scale. A big number of the respondents, 83.72 agreed that industry based challenges of changing technology and inter-firm competition were responsible for the slow growth of the industry. Those who said that the slow growth was not as result of the industry-based challenges represented only 16.28 of the total respondents. 3-point scales Likert scale to establish the extent to which the identified factors affect the industry growth shown that inter-firm competition and changing technology affect the industry growth equally.

Regarding the suitability of the proposed solutions, majority of the respondents, 75.19% agreed that solutions, if implemented could lead to increased growth of the industry. Only 24.81% disagreed with the proposed solutions implying that the solutions could work for the industry. To industry-based challenges, still majority of the respondents, 83.72% agreed that the proposed solutions would counter the industry-based challenges to increase the industry's growth rate. Only 16.28% of the respondents disagreed with the proposed measures.

5.3 Conclusion

Following the results from the analysis, the researcher concluded indeed the Kenyan telecommunication sector was not growing as rapidly as would be expected. Findings from the research indicate that the slow growth was partly due to the presence of customer-based challenges and partly due to industry based challenges. Inadequate customer loyalty and changing consumer tastes and preferences were identified as the main customer based challenges hindering expansion of the industry. The researcher established that increased market segmentation, increased levels of service quality, and adopting of new marketing strategies would dilute the identified challenges. Inter-firm competition and rapidly changing technology were identified as the two main industry based challenges affecting expansion of the Kenyan telecommunication industry. Establishing external regulations and increasing the amount of investment dedicated for enhancing technology were identified as key strategies that would counter the identified challenges.

5.4 Recommendation

The Kenyan telecommunications firms should make more investments towards eradicating challenges such as technological changes that are hindering the industries growth; The firms should also engage in regular situation analysis to determine both customer and industry trends as this remains as the only sure way to remain ahead off the challenges; and The government through the ministry of communication should create an enabling environment through enacting regulations that monitor the industry's competition in order to maintain healthy levels of competition.

5.5 Suggestions for further study

There is need for more research regarding the internal factors that are hindering the telecommunication sector growth especially factors to do with human resources and marketing strategy formulation; and There is also need to determine how other multinational telecommunication firms affect growth of the local based firms.

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APPENDIX 1: QUESTIONNAIRE

Research topic

Evaluation of the challenges hindering expansion of the telecommunication sector in Kenya

Instructions: (in case of a box please tick (✓) as appropriate and if a space fill.)

SECTION 1: General information

1. Name of organization ………………………………………………………………..
2. Current post held..

SECTION 2: INDUSTRY CHECK

1) The Kenyan telecommunication industry is growing at a very slow rate compared to other telecommunication industries in the developing countries.
   - Strongly disagree ☐
   - Disagree ☐
   - Agree ☐
   - Strongly agree ☐

SECTION 3: CHALLENGES

Customer based challenges

1. In your own view, do customers affect the expansion of the telecommunication industry in Kenya?
   Yes ☐ No ☐

If yes, please specify the factor (s) which could be affecting the expansion of your firm in the Kenyan industry.
a) Customer loyalty ☐
b) Changing customer tastes and preferences ☐

2. To what extent do the above identified challenges affect growth of your firm **(please tick as appropriate**)

	Not at all	slightly	Largely
Customer loyalty			
Customer tastes and preferences			

Industry based challenges

1. In your own view, do industry based challenges hinder the expansion of the telecommunication industry in Kenya?

   Yes ☐ No ☐

   If yes, please specify the factor(s) that could be affecting the expansion of your firm in the Kenyan industry.

   a) Inter-firm competition ☐

   b) Changing technology ☐

2. To what extent do the above identified challenges affect growth of your firm **(please tick as appropriate)**
3.

	Not at all	slightly	Largely
Inter-firm competition			
Changing technology			

SECTION 4: PROPOSED SOLUTIONS

Customer based challenges

1. Please state your stand on the measure(s) that in your opinion provides the best solution to the customer based challenges identified in part 3 above.

Strategy	agree	disagree
Increased market segmentation, where customers are provided with services that meet their particular telecommunication needs. For example providing different tariffs based on customer demographics.		
Increasing the levels of service quality, through conducting customer surveys to determine the perceived quality of the services on offer		
Shifting to new marketing strategies that enhance levels of customer loyalty such as relationship and green marketing		

Industry based challenges

2. Please state your stand on the measure(s) that in your opinion provides the best solution to the industry based challenges identified in part 3 above.

strategy	agree	disagree
Formulating and implementing regulations that control inter-firm competition in the Kenyan industry such that firms engage in fair completion.		
Increasing the amount of investment dedicated for enhancing technology and research and development in order to ensure that firms in the industry respond promptly to technological changes		

Thank you for sparing your time to share your views in this research questionnaire