

**OPERATIONS MANAGEMENT STRATEGIES AND MOBILE
PHONE COMPANIES IN KENYA: A COMPARATIVE STUDY OF
SAFARICOM AND AIRTEL KENYA**

BY

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DECLARATION

This research project is my original work and has not been presented for examination or award in any other University.

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This research project has been submitted for presentation with my approval as the University Supervisor.

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DEDICATION

This research project is dedicated to my family for love, support and encouragement.

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ABBREVIATIONS AND ACRONYMS

| | | |
|-----|---|-----------------------------------|
| CA | : | Communications Authority |
| CAK | : | Communications Authority of Kenya |
| CCK | : | Communication Commission of Kenya |
| GDP | : | Gross Domestic Product |

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ABSTRACT

In the past few years, the mobile industry has grown steadily outperforming other sections of the Kenya's economy with an approximate growth rate of 20% annually. However, the industry is dominated by Safaricom with 67.1 per cent market share. The other players in the industry that include Airtel and Orange telecom have been struggling to increase their market share each having 10.8% and 20.2% market shares by end of year 2014. However, Safaricom has continuously innovated and adopted operational strategies that continue to position the firm on top of increase in completion. In response, Airtel has also been adopting operational strategies such as outsourcing in order to gain competitive advantage in market. Though the theories (Stakeholder and Resource Based theory) have tried to establish the core determinants of the types of strategies implemented in the mobile service providers, the studies conducted have shown mixed results as to which management strategies are adopted by organizations. Empirical evidence show that a lot focus has been given to strategies adopted by the mobile service providers. The studies however have not given much emphasis on the operation management strategies as most of the studies have investigated the concept of strategy as a whole. Moreover there is no study that has adopted a comparative approach to determine the operation management strategies adopted by Airtel Kenya and Safaricom. This study sought to bridge this gap by comparing the operational strategies adopted by the firms and whether the strategies account for differences in performance for the firms. This study adopted descriptive research design using a comparative approach in obtaining information about operations management strategies adopted Safaricom and Airtel. The target population of the study comprised of the operation managers of the shops of both Airtel Kenya and Safaricom mobile service providers that are located in Nairobi. The study used primary and secondary data. Primary data will be collected using questionnaires which are chosen due to them being time saving and convenient for obtaining a wide range of information. Data was analyzed using frequencies, mean and standard deviation. Open ended question on other strategies will be stated and strategies compared between the two firms. To compare and contrast the operation management strategies among the two firms, the key operations management strategies were identified for each firm using the means and compared. Their similarities will be determined using the frequencies and means used. Multiple regression analysis was used to determine the effect of operations strategy on organization performance. Statistical Package for Social Sciences (SPSS) was used to analyze data. The study found that the key strategies adopted by the firms related to product differentiation, supply network, risk management, capacity utilization and to a less extent cost leadership strategy. While the firms were found to have related strategies, the firms differed in the level of adoption of specific strategies. The study also found that operation management strategies affect performance of the firms. Adoption of superior operations management results in increased profits in the mobile company, elevated customer base, influence the effectiveness of the firm's practices and leads to reduced operations costs of the mobile company. The study recommended that mobile telecommunication firms and other firms in other industries to adopt operations management strategies that are superior in their respective industries and ensure the management should ensure that their firms are leaders in adoption of most efficient strategies.

CHAPTER ONE: INTRODUCTION

1.1 Background of Study

Organizations are faced with uncertainties in attainment of their objectives and this poses threat to their success (Crown, 2004). In attempt to encounter these threats, the organization ought to manage their operations. Over the recent years the nature and dynamics of operation management systems has changed drastically due to the advancement in technology. Organizations have been forced to formulate strategies to cope with the growing frequency and magnitude of changes in technology and managerial methods (Lewis, 1998).

Operations management strategy refers to the set of decisions related to goals, resources and operational capabilities of an organization (Hayes, 2005). Through the operation management strategies, the firm is able to not only conduct its daily operations efficiently, but also to gain competitive advantage thus improving the profitability of the firm. Various operation management strategies have been identified by scholars such as quality products, efficient supply chains, inventory control and cost efficient practices. The studies done however have shown that the strategies differ from firm to firm (Bertrand and Fransoo, 2002).

Operation management differs from other areas of management in that it addresses both the physical and human elements of the organization (Drejer *et al*, 1998). It highly influences how the financial performance of the firm is and hence determining the success of the business. The field of operation management has however been critical due to lack of plausible grand theories as compared to other more mature disciplines such as sociology and economics (Amundson, 1998; Meredith, 1993). The available theories indicate that the stakeholders and the available resources are what greatly determine the type of operation management strategy put in place by organizations. The resource based view for example argues that sustained competitive advantage and improved performance by a firm may be realized by exploiting resources that are valuable, rare, imperfectly imitable and non-substitutable (Crook, Ketchen, Combs & Todd, 2008).

The mobile phone industry has in the recent past been growing at a fast rate. Economic Survey (2015) indicates that the mobile telephone capacity grew by 18.2 per cent from 55 million in 2013 to 65 million in 2014. Despite this growth the mobile penetration is still low as it only rose by 3.4% between 2013 and 2014 (Economic Survey, 2015). The mobile telecommunication industry is regulated by the Communication Authority of Kenya. The industry has few operators which can be attributed to the large initial capital required to start the mobile phone companies, stiff regulations and high tax regime pertaining to mobile telephony. The industry is faced with stiff competition with the few service providers yearning to gain the upper hand in market share. So as to strive in the competitive market, the mobile phone providers are forced to evaluate their operation management through formulation of strategies. This study aims to shed more light into these operation management strategies by focusing on the comparative operation management strategies of the two leading mobile service providers in Kenya; Safaricom and Airtel Kenya.

1.1.1 Operation Management

Operation management refers to a transformation of how the firm conducts its daily operations (Harry and Schroeder, 2000). Slack *et al*, (2004) define operation management as the decisions and actions which set the role, objectives and activities of the running of a particular organization. Operation management goes hand in hand with operation management strategies; which are strategies put in place so as to ensure the operation management succeeds in playing the role it was intended for. Mintzberg & Waters (1985) view operations management strategy as a pattern, implying a consistency in strategic decisions and actions over time. Slack and Lewis (2011) further defines operation management strategies as a chain factors which facilitate the process of conversion of a firms' input into output.

Strategic management is one of subjects under discussion and increasingly attractive fields of development management. This is attributed to the fact that through strategic operation management, the management of the firm is able to position and relate the organization to its environment in a way that it will continue its success and secure the firm's future operations (Jorfi and Jorfi, 2011). For long various operation management

topics have emerged such as aggregate planning, inventory control, material requirement planning, scheduling, and quality control have been examined by quantitative modeling and simulation (Bertrand & Fransoo, 2002). Thus the raise in concern the benefits assumed to be brought out by operation management strategies. Slack and Lewis, (2011) argue that through operation strategy the firm is able to make appropriate decisions and efficiently use the firm's resources, reducing the firms' operation costs.

Effective operations strategies need to be consistent and contribute to competitive advantage through; highlighting opportunities for operations to complement the business strategy, making operations strategy clear to the rest of the organization and provide the operating capabilities that will be required in the future (Hayes *et al.*, (2005). Conversely the nature of operation management is not static as it varies from firm to firm depending on the nature of the products or services of the organization. The success of a firm is brought about by efficient strategy operations (Islam, and Ali, 2011). Hill (1995) supports the argument postulating that operation management strategy is enveloped in response to the environment into which the organization operates.

An appropriate operations strategy is essential to an organization not only as it will determine the extent to which its business strategy can be implemented, but also as its operations can be a source of competitive advantage. The efficiency of an operation management strategy is measured by the performance of operations and the attainment of the set operation objectives. There are five possible operations performance objectives: cost, quality, speed, dependability and flexibility (Slack *et al.*, 2004). The objectives are only realized if the strategies are well formulated and implemented. In addition through operational management strategies broad policy goals are linked to individual management actions.

1.1.2 Mobile Phone Companies in Kenya

The mobile phone industry has changed drastically in the recent past and has portrayed an upward trend since year 2000 (World Bank, 2012). Initially all the telecommunications in Kenya were controlled by the state-owned monopoly (Kenya Posts and Telecommunications Corporation) until 1998 when the Kenyan Parliament passed the Kenya Telecommunications Act. This led to diversification of the telecommunication industry with the licensing of newly privatized companies, Safaricom and Ken Cell (now Airtel Kenya) were licensed by CCK to provide mobile services. The number of mobile service providers has increased since then and currently there are three mobile telephone networks in Kenya namely Safaricom, Airtel, Telkom-Orange (CA, 2015). Due to increased competition, Essar telecom (Yu mobile) quit the Kenyan mobile phone industry reducing the firms from four to currently three.

The mobile phone service industry in the Kenya has recorded very highest growth. By 2015, the mobile subscriptions had risen by 7.4 per cent to stand at 33.6 million with a projected growth rate of 6.8% per annum (Economic survey, 2015). Currently, Safaricom is the leading mobile network operator in Kenya in terms of revenue and customer base having over 21.6 million subscribers. Airtel is the second largest with approximately 5.3 million subscribers, followed by Orange-Telkom with 3.4 million subscribers (CCK, 2014).

The mobile phone service providers in Kenya are regulated by the Communications Authority of Kenya (CA). CA is mandated by law to license all systems and services in the communications industry, including telecommunications, postal/courier and broadcasting. The CA executes its mandate along with its establishing Act, The Kenya Communications Act (No. 2 of 1998) and as amended by the Kenya Communications (Amendment) Act, 2009. It provides the framework for regulating the communications sector in Kenya (CA, 2014).

The mobile industry has greatly contributed to the growth of the country's economy with a contribution of 7.6% to the GDP having revenue of KES 173.6 billion in year 2015, registering a 6.9 per cent increase (Economic Survey, 2015). Thus for several years running, the sector has emerged to be the leading source of government revenue

especially through taxation (Gobabo, 2014). The industry is very competitive in terms of the competitive strategies deployed by the mobile companies. This is evidenced with frequent advertisements on competitive strategies in the media such as cheaper prices and diversified product services all in attempt to lure more subscribers. Though the leading service providers, Airtel Kenya and Safaricom offer similar products and services, they highly differ in their tariffs, offers and advertising strategies implemented by the firms.

1.1.3 Safaricom Limited

Safaricom Ltd was established in 1993 as a department of Kenya Posts and Telecommunications Corporation. It was then incorporated on 3 April 1997 under the Companies Act as a private limited liability company and converted into a public company with limited liability in May 2002. Safaricom has grown steadily to control over 65% market share in nine years (Safaricom, 2014). Currently Safaricom is global multibillion company offering pre-paid and postpaid services to over 21.6 million customers on data, mobile voice and money transfer.

Safaricom has 270,000 retailers and 43 shops to ensure adequate distribution of products and services. In addition to that it offers M-Pesa services and also sells a range of devices (Safaricom, 2014). The number of subscribers of Safaricom has grown steadily for the last decade recording a high of 78% of the total market share (CCK, 2014). Safaricom has strengthened her leadership in the mobile market over the years by adoption of innovative products, marketing and operational strategies. In addition, Kenya Revenue Authority named Safaricom as the top tax payer for the 2011/2012 financial year. Over the years, the company's profits and sales have been increasing due to its innovative culture and proactive strategies (Safaricom, 2014).

Safaricom was the first company to develop a mobile phone-based money transfer service, M-Pesa though other companies have emulated the same. The company aims at diversifying even more in offering services such as managed services in information technology, which involves providing data storage, software and hardware leasing to third parties (Gabo, 2014). Safaricom employs over 1500 people mainly stationed in Nairobi and other big cities like Mombasa, Kisumu, Nakuru and Eldoret in which it manages retail outlets. Currently, it has nationwide dealerships to ensure customers

across the country have access to its products and services (Safaricom, 2014). Having invested over KES 28.78 billion, Safaricom Limited highly prioritizes its management and competitive strategies in attempts to retain its dominance in the Mobile Industry despite the competition faced (Safaricom, 2014).

1.1.4 Airtel Limited Kenya

Airtel Network Kenya Limited was launched in Kenya in 2000 as Kencell and rebranded to Zain in 2008 and finally Airtel in 2010. These changes in name were occasioned by changes in ownership of the company. Its current name Airtel Kenya was adopted after acquisition and rebranding of Zain group by Bharti Airtel Limited, an Indian corporation. Bharti Airtel limited is leading global telecommunications company with operations in 20 countries across Asia and Africa and has its headquarters in New Delhi. The company is ranked amongst the top 4 service providers globally. In Kenya however, Airtel Kenya is currently the second largest in terms of the number of subscribers.

Airtel Kenya offers a wide variety of products ranging from wireless services, mobile commerce, fixed line services, money transfer and internet solutions (Airtel, 2014). In addition, the company offers pre-paid and postpaid services, messaging, mobile number portability services, bill payment services, top ups, and Internet-services. The Quarterly report by CCK for 2013/2014 indicate that Airtel increased its subscription by 17.6% showing that it is gaining more popularity among the mobile users.

Though Airtel faces stiff competition from other mobile service providers, specifically Safaricom, the company has been able to increase its yields over the years. This is not outstanding to the fact that Airtel has continuously tried to adopt various strategies including pushing for regulatory change to make the industry more open to completion. Airtel has also been adopting certain competitive strategies which include strategic outsourcing and renting of infrastructure, international brand value and industry economies of scale (Sande, 2014). Also the recent introducing of a mobile internet service known as *Airtel UnlimiNet* has greatly influenced the performance of the company.

1.1.5 Comparison between Safaricom and Airtel Kenya

Safaricom and Airtel Kenya compare in respect ownership, industry, services offered and strategies adopted. Both firms are similar in that they operate in the same industry, market and offer similar services. Both firms have offer data, voice and wide range of corporate services. In response to the rise in competition, both firms have diversified their operations to retailing of mobile phone handsets and partnering with other companies to additional services including insurance. Both firms have also invested highly on mobile money infrastructure with the mobile money business being conducted in similar way with exception on brand names. Since the firms operate in similar industry, they are both regulated by the Communication Authority of Kenya and subject to similar regulations.

The firms however differ greatly in diverse ways. In respect to ownership, Safaricom is a public company listed in the Nairobi Securities Exchange. Hence, in addition to regulation by Communication Authority, the firm is also regulated by the Capital Markets Authority and Nairobi Securities Exchange. This is contrary to Airtel Kenya which is a private company owned by Bharti Airtel (an Indian firm). This therefore means that Airtel is expected to be more flexible since it is subject to lesser regulation than Safaricom.

The firms also differ in market share with Safaricom dominating the mobile telecommunication industry. While the two firms had a three years difference in entry to the market (Safaricom 1997, Kencel 2000), the rate at which the firms gathered market share can be attributed to the strategy the firms adopted. Airtel (then Kencel) targeted the top market clientele while Safaricom developed products and services targeting the mass market. Change in ownership of Airtel over years also continued to influence the market share of both firms.

1.2 Research Problem

In the past few years, the mobile industry has grown steadily outperforming other sections of the Kenya's economy with an approximate growth rate of 20% annually (World Bank Economic Update, 2010). However, the industry is dominated by Safaricom with 67.1 per cent market share (CA, 2015). The other players in the industry that include Airtel and Orange telecom have been struggling to increase their market share each having 10.8% and 20.2% market shares by end of year 2014 . However, Safaricom has continuously innovated and adopted operational strategies that continue to position the firm on top of increase in completion. In response, Airtel has also been adopting operational strategies such as outsourcing in order to gain competitive advantage in market. This is in line with Jorfi and Jorfi (2011) argument that firms ought to carefully evaluate their operation management strategies to remain competitive.

Though the theories (Stakeholder and Resource Based theory) have tried to establish the core determinants of the types of strategies implemented in the mobile service providers, the studies conducted have shown mixed results as to which management strategies are adopted by organizations. Ochako (2007), who investigated the strategic issue management practices by mobile telephone companies operating in Kenya, a case of Safaricom limited and established that in response to competitive environment, Safaricom adopted the 3 porter's generic strategies among others. Similarly Wambua, (2014) conducted a study on the relationship between operations strategy and business performance in the mobile service providers in Kenya. The study established various operation strategies to be cost, quality, flexibility and speed of provision of services. This is line with the findings of Kapto and Njeru (2014) and Wanjiru, (2010). In addition Michieka (2008) studied the application of competitive strategies to the challenges of increased competition faced by Safaricom airtime dealers in Nairobi Central Business District and found that various strategies have been applied such as expansion, diversification, corporate social responsibilities, and joint ventures among others. On the contrary Aila *et al* (2015) conducted a study on effective management of strategic issues in the Insurance Industry, Kenya and found out that most insurance companies in Kenya had strategic issues affecting their operations due to the strategies kept in place being not diversified.

These studies show that a lot focus has been given to strategies adopted by the mobile service providers. The studies however have not given much emphasis on the operation management strategies as most of the studies have investigated the concept of strategy as a whole. Moreover there is no study that has adopted a comparative approach to determine the operation management strategies adopted by Airtel Kenya and Safaricom. This study therefore sought to bridge this gap by comparing the operational strategies adopted by the firms and whether the strategies account for differences in performance for the firms. The study sought to answer the research questions; how different are the operation management strategies put in place by Safaricom and Airtel Kenya?

1.3 Research Objective

The general objective of this study was to compare the operation management strategies adopted by Safaricom and Airtel Kenya.

1.3.1 Specific Objectives

The specific objectives of the study were;

- i. To identify the key operation strategies adopted by Safaricom and Airtel Kenya.
- ii. To compare and contrast the operation management strategies among the two firms.
- iii. To determine the relationship between the operation management strategies adopted and the firm performance.
- iv. To evaluate the future of the telecommunication industry in Kenya.

1.4 Value of the Study

The findings of this study are beneficial to the management team of Safaricom and Airtel Kenya. The findings have highlighted the operation management strategies in the firms. Due to the study being comparative in nature, the management of both the mobile service providers are able to compare their operation management strategies. This will enable them identify gaps in their operation management strategies and through which they may enhance operation performance.

The findings of this study are of great benefit to policy makers. Information that was obtained from the study has provide information that the Ministry of Information and Communication and Communications Authority of Kenya can use to assess and improve implementation of the registration and regulation of the telecommunication industry that is core towards achieving Vision 2030 in Kenya.

The findings of this study intend to make a significant contribution to the known knowledge on operation management strategies. Academicians and researchers are able to find information on operation management that would assist in addressing some of the gaps that exist in this area. In addition the study form guideline for future researches that will be conducted on operation management strategies.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter reviews the existing theoretical and empirical literature on operation management strategies. The chapter reviews different context of the study and the empirical evidence relating to the study. The chapter ends with summary of the literature, an overview of the research gap and the conceptual framework.

2.2 Theoretical Framework

This study was guided by the following theories, resource based theory, systems theory and dynamic capability theory. These theories as discussed below gave the theoretical background in explaining the study variables.

2.2.1 Resource Based View Theory

Resource Based View Theory as proposed by Wenerfelt (1984). The theory holds that the organization's resources determine the nature of organization's practices. The theory tries to explain the relationship that exists between business operations and the resources of a firm (Hoffer and Schendel, 1978). According to the theory, for any business operation to be undertaken, the company resources ought to be carefully evaluated. These resources include; human resources, physical resources, capabilities, the financial resources as well as the intangible resources (Barney, 1991; Wenerfelt, 1984).

Resource Based View Theory also holds that firms with abundant resources are more likely to perform better than the firms with unlimited resources. However so as to gain competitive advantage, the management should ensure proper evaluation and utilization of the available resources so as to suit the company's needs. A resource is considered strategic if it is valuable, not substitutable, rare or specific and inimitable in order to contribute to improving the performance of the firm (Karimi, 2014).

Though Resource Based theory is critiqued by various scholars who argue that the firm's resources is not a great strategy in gaining competitive advantage as the resources may be replicated by other its competitors (Thompson et. al, 2007), this study finds the theory of importance. It is important to the study in that it relates the major determinant of the type of operation management strategies put in place by the mobile banking companies to be the available resources. Thus if the firm has the appropriate resources, it's more likely to have well placed operation management strategies. The resources form the basis of power and dominance of organizations (Scott, 2003).

Similarly, the theory's implication to the study is that the strategies put in place by Safaricom and Airtel will be highly determined by the available resources. This is attributed to the fact that a firm cannot implement an intended strategy if it does not have the required strategies. Thus the strategies available in the mobile phone companies are based on the resources available in the firms. Therefore the mobile phone companies ought to carefully analyze the available resources so as their strategies to achieve the intended purposes and gain competitive advantages.

2.2.2 Systems Theory

The Systems Theory was initially proposed by Ludwig, (1940) and later advanced by Rosh Ashby (1956) and has since then been modified and used in various disciplines. Systems theory is a theory of business management that explains the influence of the external environment to the business. The theory tries to describe the complex relationships between people, tasks, and technologies and helps us to see how these can be used to enhance organizational performance (Pasmore and Sherwood, 1978).

The theory holds that the business is a system which is influenced by the external factors, which maybe other businesses operating in the same industry. The external businesses highly determine the type of strategies put in place by the firm. This is due to the fact that in order for a firm to gain competitive advantage, it has to evaluate the strategies put in place by its rivals, how to overcome them and even formulate better strategies (Karimi, 2014). This indicates that organizations exist in situations whereby they have interdependence with one another. Therefore the organization's decisions will be predetermined by the type of external pressure on the firm.

Hence basing argument on this theory, the type of operation management strategies adopted by a mobile phone services provider, is based on the type of strategies put in place by other mobile phone providers. This is seen whereby if a rival firm introduces a new strategy in market, the firm has to come up with counter strategies to limit the competitive advantage. The Systems Theory comes in handy in explaining the reason behind the high competition in the mobile phone industry and also in explaining the reason behind the similarities of operation management strategies thus adopted by the study in evaluating the operation management strategies in Mobile Phone Service providers

2.2.3 Dynamic Capabilities Theory

The Dynamic Capabilities Theory was introduced by Teece and Pisano (1994) as an extension of the Resource Based Theory. Dynamic Capability refers to the specificity of certain resources to firms and are not easily imitated. Dynamic capabilities theory examines how firms integrate, build and reconfigure their internal and external firm-specific competencies into competencies that match their turbulent environment (Teece, Pisano and Shuen, 1997). In essence the Dynamic Capabilities Theory tries to make use of competences that are unique to firms to gain competitive advantage and explains how these competences are developed, deployed and protected (Teece et al., 1997).

The theory holds that firms with greater dynamic capabilities will outperform the firms with smaller dynamic capabilities. Additionally, the theory focuses on how firms use dynamic capabilities so as to gain competitive advantage by responding to and creating appropriate environmental changes. Thus according to this theory, the firm with a greater dynamic capability is more likely to have more advanced strategies put in place. Safaricom which is larger than Airtel is theorized to have an upper hand in gaining the competitive advantage as compared to Airtel. Therefore what matters most is not the available resources but the uniqueness of the resources and how well they are integrated.

2.3 Telecommunication Industry

Telecommunication refers to the exchange of information between two entities by the use of electric signals, cables or electromagnetic waves. Telecommunications is one of the fastest growing industries in the world as it is even expected to have more mobile subscriptions than the global population by the end of year 2020 (Singh, 2014). Globally, based on their large market shares and profits the leading telecommunication industries include; Telstra, Nippon Telegraph & Tel, America Movil, Deutsche Telekom, Telefonica, Soft Bank Corp, Vodafone, AT&T Inc., China Mobile and Verison Communications (Telecommunications Survey, 2014).

In Kenya however the telecommunication industry is not extensively diversified as it has only three major mobile phone companies namely, Safaricom, Airtel Kenya and Orange Telkom of which Safaricom and Airtel Kenya are the leading companies. Since 2000, the sector has outperformed all other players in the Kenyan economy, growing on average by approximately 20% annually (World Bank Economic Update, 2010). The sector is of importance to not only the economy due to the large revenue it remits, but also to the improvement of the live hood of the citizens as it facilitates in the day to day operations and enhances the operations of most businesses.

The telecommunication is unique with firms in the industry imitating the strategies adopted by other firms. It is different from other industries in terms of regulation and the future of the industry. While it may be easy for the firms to enter other industries like manufacturing, the capital requirement and strict regulation by the government through the Communication Authority acts as major hindrance to entry. Further, the telecommunication industry has high growth potential. This is due to the continued population growth, increased mobile penetration and the need to provide more services through mobile phones (Singh, 2014).

2.4 Operational Strategies

In every open market scenario there exists competition between firms which produce similar or almost similar products and is a similar case in mobile industry. The competition is brought about by the rivalry that exists among the mobile companies. This rivalry has been evidenced by the price wars which each mobile operator aims greatly at shadowing the others by lowering their prices for voice calls, text and internet access. As a result, very competitive prices have been fixed by the different operators in and when one operator adopts a certain strategy, the other firm introduces a related strategy (Sande, 2014). For example, in 2015, when Safaricom introduced 300% bonus promotion to promote voice calls, Airtel introduced 500% bonus. The competition is intensified even higher by the frequent advertisements of the mobile companies in the media. In order to gain competitive advantage against the competitors while still being able to efficiently manage the firm operations, the management of firms has to formulate efficient operational strategies. These include but not limited to; differentiation strategy, cost leadership strategy, supply network strategy and risk management strategy.

2.4.1 Differentiation Strategy

This refers to a situation where a firm yearns to provide goods/ services that have a distinguishing factor in market (Reilly, 2002). This is attained if the products/ services provided by the firm are completely different from what other firms are providing. The key factor for developing differentiation as an effective strategy method is identifying what exactly will make a particular firm's product unique from the rest, this may be through; enhancing the quality of service, boosting the image of the firm, graphical reach, involvement in client organizations, product, enhanced delivery system, and the marketing approach have been suggested to differentiate a firm (Davidson, 2001).

Through differentiation the firm targets in achieving product and service quality. Bitner, Booms and Mohr (1994) define service quality as 'the consumer's overall impression of the relative inferiority / superiority of the organization and its services'. Thus the firms' operation will be managed in that the company's products will have a special sensitivity by the customers thus help in building the customer loyalty. Through this the firm will be able to increase its performance greatly. The differentiation strategy is eminent in the

mobile phone industry whereby each mobile company aims at making their services and products unique. To begin with their network each mobile company has taken a different approach in ensuring the diversity of network coverage. Some focus on the quality while others focus on the geographical coverage.

These companies have also been differentiating their products in terms of packaging and presentation where each has a distinct color. For example, Safaricom identifies her products with green, Zain with pink and purple, Orange with color orange and YU with black, red and green. On the internet service, the firms have differentiated their service by having the fastest internet. While Airtel and Orange have been only offering 2G and 3G network, Safaricom launched the 4G network. This is irrespective of company like Orange struggling to implement 3G network in various towns. Additionally, Orange Telkom has introduced a very affordable phone known as *Kaduda* phone with Safaricom and Airtel promoting data enabled phones in attempt to grow their data market. Safaricom also introduced of late has been running a 300% on airtime while Airtel introduced 500% bonus airtime. All these are in attempts to make their products unique and boost customer loyalty.

2.4.2 Cost Leadership Strategy

Cost Leadership is one of Porter's generic strategy which focuses on a firm gaining competitive advantage through providing services/products of a lower cost as compared to other firms (Malburg, 2000). The lower costs of the products/ services are hypothesized to lure more customers thus increasing the profitability. So as to gain cost advantage, the firm has to be efficient in production and operations thus reduce operation costs. The cost leadership strategy comes really hand where the only distinguishing factor in the market is the cost. A firm that strives to have the lowest cost in the industry offers its products and services to a broad market at the lowest prices. Cost Leadership Strategy may however cause the firm to incur additional costs in operations and this may reduce the profitability (Malburg, 2000).

The mobile phone companies in Kenya have been very keen in reducing the costs of their operations. The mobile companies adopt various moves to reduce costs on their end for example operating online to reduce on use of paper and now communication within is

thorough emails and not paper, reducing the levels of management which cuts corporate overhead and having long term contracts with suppliers who are able to supply at low prices (Sande, 2014). The cost leadership is also achieved through efficient marketing and distribution of products. This reduction in costs therefore enables the company to be able to sell their products and services at low prices to their customer.

2.4.3 Supply Network Strategy

Supply network strategy relates to the process of purchasing and logistics in firms. This entails onto how the company is connected in its business operations with customers, suppliers and the stakeholders (Jorfi and Jorfi, 2011). The supply network highly determines the operation nature of the firm in that if the supply network is efficient, the firm will be able to obtain goods in time and provide the goods to the customers whenever needed. All operations need to consider their position in this network, both to understand how the dynamic forces within the network will affect them, and to decide what role they wish to play in the network. Due to the supply network being very critical for the performance of any firm, various new supply network strategies have emerged such as lean procurement.

Lean procurement as described by Harland *et al*, (2007) is the demand driven supply chains require lean procurement methods whose goals are to eliminate waste in all procurement cycles, prevent shortages, reduce inventory investment and reduce procurement lead time and cost. Thus, applying lean methods to procurement function and purchasing activities can dramatically increase a company's performance and profits the management therefore is of the mandate to ensure that the supply network management is efficient to cater for all the firms supply's (Jorfi and Jorfi, 2011). In the telecommunication Industry, the using e-procurement and 5S (sort, straighten, shine, standardize, and sustain) to enhance the supply has been adopted by most firms. This ensures the availability of goods and products whenever needed. In the telecommunication industry, the supply network such as is used so as ensure maximization of the firm's resources.

2.4.4 Risk Management Strategy

Risk Management strategy is concerned onto how the management secures its operation against risks which might occur. It comprises the activities and actions taken to ensure that an organization is conscious of the risks it faces, makes informed decisions in managing these risks, and identifies and harnesses potential opportunities (Comcover, 2008). Some of the operational risks result in an increase in the organizations' operating cost while others lead to a decrease in the organization's revenue for example the loss of a customer to competition due to poor service. The risk management entails understanding the nature of the business, identifying and assessing the risks the firm faces and how to counter this risks (Rejda, 2008).

Risk management is an operation management strategy in that through managing the risks a firm is likely to encountered, disruptions which would have been caused by an occurrence of a risk will be prevented or known how to be dealt with thus improving the operation performance. In the telecommunication industry, various risk management strategies have been adopted by various mobile service providers. This includes; developing products that meet different needs of the different customer segments to avoid the risk of financial loss, having insurance arrangements with an insurance company where insurance premiums are paid regularly and insuring all goods in transit and undertaking insurance cover against any unpredictable (Okonjo, 2014).

2.4.5 Capacity Utilization Strategy

Capacity utilization is a measure of the extent to which the productive capacity of a business is being used (Oxford, 2009). It can be defined as the percentage of the total capacity achieved at a particular time and is always measured in production units. Capacity strategy is attained based on the efficient use of the available infrastructure and resources of the company. This ranges from the production to the supply sections of the firms which ensure efficient running of the firm's practices. The capacity utilization is important for the thriving of the firm in that it is a determinant of the productive efficiency of a particular company. Additionally, the capacity utilization drastically reduces the unit costs thus enabling the firm to gain competitive advantage against the rivals.

As such the capacity utilization can be achieved through minimizing the production activities. In the telecommunication industry, the capacity utilization is eminent whereby the mobile companies yearn to improve their financial performance through utilization of the available resources. For example upon the dissolution of Essar, Airtel acquired its subscribers whereas Safaricom acquired its infrastructure and this greatly enhances their output (CCK, 2014). Therefore a company that is able to effectively utilize its capacity is more likely to perform better hence gaining competitive advantage.

2.5 Empirical Review

The operation management strategies have been linked to be a key tool in the success of the mobile provider companies (Sande, 2014). The strategies not only make the firms adaptable to market pressures, but also enhance the firm's internal capabilities hence making it flexible. This section therefore reviews the studies done on the area of interest and identifies the gaps the study will bridge.

Michieka (2008) studied the application of competitive strategies to the challenges of increased competition faced by Safaricom airtime dealers in Nairobi Central Business District. The study found that various strategies have been applied such as expansion, diversification, corporate social responsibilities, and joint ventures among others. The study however focused entirely on Safaricom and this could be the actual representation in other mobile companies such as Airtel and Telkom Kenya.

Wanjiru, (2010) investigated competitive strategies adopted by mobile phone companies in Kenya. The study found that mobile phone companies had adopted several strategies which include cost leadership, differentiation, marketing strategies, diversification, expansion, technology strategies, customer service and corporate social responsibly and according to the respondents, all of them have been successful to their companies. The study was able to identify the strategies generally without comparison of the strategies adopted by each individual company. This study aims at shedding more light to this.

Kapto and Njeru (2014) conducted a study on the strategies adopted by mobile phone companies in Kenya to gain competitive advantage. The study found out that there existed a strong relationship between strategies adopted by the mobile phone companies to gain competitive advantage, cost leadership, differentiation and focus also positively affected competitiveness. Therefore the purpose of adopting competitive strategies is to enable institutions promote healthy competition. Though the study was able to establish the effect the strategies have in gaining competitive advantages, it did not comprehensively compare the competitive strategies adopted by the leading mobile service providers; Safaricom and Airtel Kenya.

Wambua, (2014) conducted a study on the relationship between operations strategy and business performance in the mobile service providers in Kenya. The study established that operations strategy was used to a great extent in all the four mobile service providers in Kenya. It was further realized that cost, quality, flexibility and speed of provision of services affected business performance to a great extent. The study gave much consideration to the effect the strategies implemented by the mobile companies have on the performance other than the available strategies in each firm. This study aims at filling this gap through comparing the operation management strategies in Safaricom and Airtel Kenya.

2.6 The Future of Telecommunication Industry

With millions of additional investments flowing in and subscriber numbers rising across the country, the telecommunication sector has surpassed the point of being of high potential to the point of high growth (Communication Review, 2012). The telecommunications market is constantly expanding due to liberalization, government support and support and product and service innovation and this expansion is just the beginning as much more is expected in the future. Mobile money service has become more relevant and its importance is expected to be immense. The use of mobile payment has mostly been for personal needs but now constantly being used more for payment of

goods and service. This is expected to increase telecommunication revenues and importance of the industry.

The future of the telecommunication industry, though it may not easily pre-determined lies greatly on ICT and advancements in the internet technologies. The Global Internet Speed Report released in March 2012 ranked Kenya after Ghana as the second country in Africa with the highest internet speed. The internet was introduced in Kenya in 1993, and the first commercial internet service provider (ISP) began operating in 1995 and has really improved since then (Francisca, 2000). Currently the mobile service providers offer broadband services with 2-G, 3-G and even recently 4-G internet speeds and this has greatly boosted and the technological improvements in telecommunications as operations are now faster and more enhanced. Moreover there is provision of wireless internet connection which enables users to use internet connections in there gadgets conveniently without the use of cables. As the internet facilities are still emerging of the day, much is to be expected in the future.

In spite of surveillance of the internet and mobile phones becoming a growing concern in Kenya over the past years as due to the increase in cyber security threats (CCK, 2012), the telecommunication industry has improved over the years and is yet to improve more. The number of mobile companies has also increased with the recent introduction of a new mobile service provider, Equitel. Thus with the advancement in ICT and technology, the future of the telecommunication industry, despite being very competitive which calls for continuous strategic competitive analysis by players in the industry is to be expected to provide much more in future in attainment of Vision 2030.

2.7 Summary of Literature

The telecommunication industry in Kenya is a vital aspect of the Kenyan economy and has advanced greatly over the years and much is to be expected in future. The sector is however highly competitive as there are few mobile service providers. These necessities the mobile phone companies to pay great attention to their firm operations if they are to obtain profits of which operational strategies have been identified to come in handy.

Empirical literature gives much focus on the strategies adopted by the mobile companies as evidenced by the numerous studies in the sector and there seems to be no consensus as to the strategies to be implemented by firms. The available literature also does not establish the relationship which exists between operational strategies and performance. Additionally there are no studies done on operation management strategies especially in the mobile service industry comparing the two leading service providers; Safaricom and Airtel. This study intends to address this knowledge gap that exists by establishing and comparing the operation management strategies adopted by Safaricom and Airtel, Kenya.

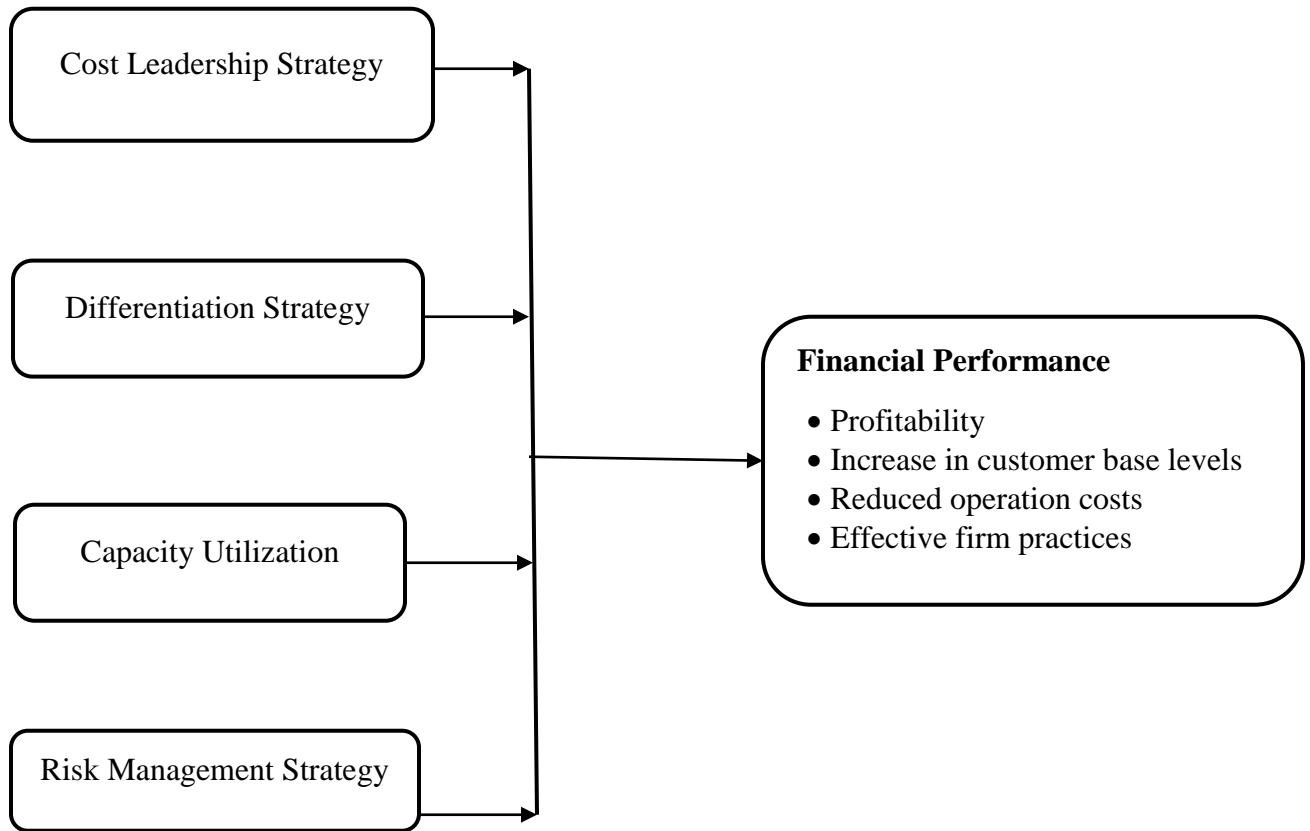
2.8 Conceptual Framework

The conceptual framework as illustrated by figure 3.1 shows how the independent variable (financial performance) is affected by the dependent variables (cost leadership strategy, differentiation strategy, capacity utilization strategy, risk management strategy and supply network strategy). The operation strategies put in place by the mobile companies if effectively implemented and managed will enable the firm gain competitive advantage against the rivals and thus improving the financial performance. Thus there exists a direct link between the dependent and independent variables of the study.

Figure 3.1: Conceptual Framework

Independent Variable

Dependent Variables



Source: Researcher, 2015

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter presents the research methodology that the researcher employed so as to facilitate achievement of the study's objectives. The chapter consists of the research design, population, sample population, data collection method and finalizes with the data analysis.

3.2 Research Design

The research design represents the scheme or outline adopted by the researcher so as to obtain answers to the particular research problem of the study. This study adopted descriptive research design using a comparative approach in obtaining information about operations management strategies adopted Safaricom and Airtel. This research design was the most appropriate as it aided in determining the way things are as it helps in establishing the current status of the population under study while enabling close association between the variables (Mugenda and Mugenda, 2003).

3.3 Population of the Study

The target population of this study comprised of the operation managers of the shops of both Airtel Kenya and Safaricom mobile service providers that are located in Nairobi. This target population is chosen since it is nearer to the researcher and thus collection and follow up of the data will be easier. As such Safaricom has 22 shops (Safaricom, 2015) and Airtel has 5 shops in Nairobi (Airtel). These 27 shops will form the study target population.

3.4 Sample Design

Due to the population being small and manageable, a census approach was used where the whole target population was studied. This is in line with Mugenda and Mugenda (2003) argument that if the population is small, the whole population is to be undertaken so as to allow obtaining of valid and reasonable information. Thus a census approach was

undertaken so as to cover all the 27 operation managers of the two mobile service providers' shops.

3.5 Data Collection

The study used primary and secondary data. Primary data was collected using questionnaires which are chosen due to them being time saving and convenient for obtaining a wide range of information. The questionnaires consisted of both close ended and open ended questions which are useful in obtaining detailed information from the respondents. In order to cover the research objectives, the questionnaires was subdivided into section A on the general information of the respondents, section B on the operational strategies put in place by the firm whereas and section C on the operation strategy and performance and section D on the future of telecommunication industry. The questionnaires were administered through a drop and pick method so as to give the respondents an ample time in filling them. The questionnaire to be used in this study is shown in Appendix I.

Secondary data collected related to the performance measure of the firm. Both financial and non financial measure data was collected. Financial data collected included revenue, assets and return on assets while non financial measures were the number of subscribers. Five years data for the period 2010 to 2014 was collected from the company financial publications and communication authority publications.

3.6 Data Analysis

Data analysis refers to the process of obtaining meaning information from the collected data (Kombo & Tramp, 2006). Before processing the responses, the completed questionnaires were checked for completeness and comprehensibility to ensure consistency. The data was then edited, classified and coded.

To identify the key operation strategies adopted by Safaricom and Airtel Kenya, data collected was analyzed using frequencies, mean and standard deviation. Both open and closed ended question on operations strategies were used.

To compare and contrast the operation management strategies among the two firms, the key operations management strategies were identified for each firm using the means and compared. Their similarities were determined using the frequencies and means used.

To determine the relationship between operations management strategies and organization strategies, multiple regressions and hypothesis testing were used. The null hypothesis that there is no relationship between operation management and performance was tested at 95% confident level using the t-test. Operations management score was achieved by determining the score of each firm from the questionnaires. The findings were also assessed from the responses on the extent to which operations management strategies affect performance.

To evaluate the future of the telecommunication industry in Kenya, various statements were evaluated using means, frequencies and standard deviation. This provided information of the expected future of the telecommunication industry.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This chapter contains detailed research findings and discussion on operations strategies adopted by Airtel Kenya and Safaricom. The data was analyzed in reference to the research objectives and findings presented using tables. The data collected was analyzed and interpreted in line with the objective of the study mentioned in chapter one which was to compare the operation management strategies adopted by Safaricom and Airtel Kenya.

4.2 Operation Management Strategies

This part sought to determine the strategies put establish the various operations management strategies put in place by the mobile operators. Further, the strategies were compared using means to differentiate them between firms.

4.2.1 Product differentiation

The study sought to determine the extent to compare product differentiation between Safaricom and Airtel. The respondents were required to indicate by ticking against a number appropriate with regard to the operations strategy employed by your company using a scale of 1 to 5 where 1 was to not extent, 2, small extent, 3 to moderate extent, 4 to great extent and 5 to very great extent.

To a very large extent, respondents indicated that Safaricom had adopted innovative culture that encourages adoption of innovative market strategies while Airtel had adopted innovative culture that encourages adoption of innovative market strategies to a moderate extent as shown in Table 4.1. The bigger standard deviation on Safaricom than Airtel implies that the respondents varied more on the strategy adopted by Safaricom. Hence, in respect of culture, Safaricom has adopted more innovative culture than Airtel. To a great extent, for both companies, the respondents indicated that the companies' products were always designed to look completely different in the market. This indicates adoption of almost similar operation strategy relating to product differentiation.

Table 4.1: Product Differentiation Strategies

| Company | Airtel | | Safaricom | |
|--|--------|---------|-----------|---------|
| | Mean | Std Dev | Mean | Std Dev |
| The company has innovative culture that encourages continuous adoption of innovative market strategies | 3.4839 | 0.2951 | 4.7742 | 0.6594 |
| The company products are always designed to look completely different in the market | 3.5806 | 0.4414 | 3.9355 | 0.8015 |
| The company has leadership product design aimed at ensuring quality product | 2.5806 | 0.2858 | 4.8710 | 0.3214 |
| Product development is participatory with a department tasked with sole role of product development. | 4.6452 | 0.3005 | 1.5484 | 0.3935 |
| Quality of product and services offered is key consideration by the firm | 4.3871 | 0.3580 | 4.9032 | 0.2319 |
| Products offered by the firms are those specifically needed by the market | 2.2258 | 0.3887 | 3.3226 | 0.3794 |
| Overall | 3.4839 | 0.3449 | 3.8925 | 0.4645 |

Source: Research Data (2015)

To a very large extent, Safaricom had adopted leadership product design aimed at ensuring quality product while Airtel had adopted this strategy to moderate extent. This means that while both firms were keen on ensuring product quality, Safaricom was found to be keener on this strategy. To a very great extent, Airtel had product development that was participatory with a department tasked with sole role of product development while Safaricom had participatory product development to small extent. This indicates that Airtel had adopted product participatory strategy more than Safaricom. To a large extent, both firms had quality of product and services offered as key consideration by the firm and hence indicating similarity on the strategy.

To a small extent, Airtel had products offered specifically needed by the market while Safaricom had products offered specifically needed by the market to moderate extent. Overall, Airtel had adopted product differentiation strategies to a moderate extent while Safaricom had differentiation strategies to a large extent. Hence, Safaricom had adopted superior product differentiation strategies. These findings compared with those of Sande (2014) that as a result of increased competition in the industry, as a firm adopts a certain strategy, the other firm introduces a related strategy.

2.2.2 Cost Leadership Strategy

The study sought to determine the cost leadership strategies applied by Safaricom and Airtel Kenya. A likert scale of 1 to 5 was used. To a very large extent, respondents indicated that Airtel runs its operations in most efficient way to reduce operational costs as presented in Table 4.2. Respondents indicated that Safaricom run its operations in most efficient to reduce operational costs to a small extent. To a very large extent, respondents indicated that Airtel had their operational tasks well structured within departments and sections to ensure efficiency to a very large extent while Safaricom to small extent.

To a large extent, respondents indicated that Airtel continuously sought innovative ways to reduce operational costs while Safaricom was to a small extent. Respondents indicated that Airtel had adopted superior cost management techniques to a large extent while Safaricom had adopted superior cost management techniques small extent. To a moderate extent, respondents indicated that Airtel was an operational cost leader in the industry while Safaricom had adopted cost leadership to a moderate extent too. Overall, Airtel had cost leadership strategy to large extent while Safaricom had adopted cost leadership strategies to a small extent. Therefore, Airtel had adopted superior cost leadership strategy than Safaricom indicating variation on operational strategies adopted by the firms. The difference in strategies adopted agrees with Ochako (2007) finding that in response to competitive environment, competitors may adopt similar strategies which may differ depending on management discretion.

Table 4.2: Cost Leadership Strategies

| Cost Leadership Strategy | Airtel | | Safaricom | |
|--|---------------|----------------|------------------|----------------|
| | Mean | Std Dev | Mean | Std Dev |
| The company runs its operations in most efficient way to reduce operational costs | 4.6774 | 0.3548 | 2.0968 | 0.4080 |
| Operational tasks are well structured within departments and sections to ensure efficiency | 4.7097 | 0.3365 | 1.9677 | 0.3566 |
| The firm is continuously seeking innovative ways to reduce operational costs | 4.0645 | 0.4019 | 2.1290 | 0.3409 |
| The company has adopted superior cost management techniques | 3.6538 | 0.1832 | 2.3548 | 0.2452 |
| The firm is an operational cost leader in the industry | 3.1935 | 0.6475 | 2.7419 | 1.5659 |
| Overall | 4.0598 | 0.3848 | 2.2581 | 0.5833 |

Source: Research Data (2015)

4.2.3 Supply Network Strategy

The study sought to compare the supply network strategies adopted by the firms. To a large extent, Safaricom had adopted most modern supply chain techniques while Airtel had adopted modern supply chain to a moderate extent. The company supply chain network was well defined and structured to ensure efficiency in operations management to a moderate extent for Airtel and to very large extent for Safaricom. To a large extent and very large extent for Safaricom and Airtel, the respondents indicated that there was a department solely tasked with supply chain network. Overall, Safaricom had adopted supply chain network strategy to a very large extent while and Airtel had adopted supply chain strategies to a large extent. The results are presented in Table 4.3.

Table 4.3: Supply Network Strategy

| Supply Network Strategy | Airtel | | Safaricom | |
|---|---------------|----------------|------------------|----------------|
| | Mean | Std Dev | Mean | Std Dev |
| The firm has adopted most modern supply chain techniques | 3.3226 | 0.4172 | 4.3710 | 0.2760 |
| The company supply chain network is well defined and structured to ensure efficiency in operations management | 3.5938 | 0.3075 | 4.6129 | 0.3833 |
| There is a department solely tasked with supply chain network | 4.4194 | 0.3678 | 4.8355 | 0.1154 |
| Overall | 3.7786 | 0.3642 | 4.6065 | 0.2582 |

Source: Research Data (2015)

4.2.4 Risk Management Strategy

This part sought to determine the risk management strategies applied by Safaricom and Airtel. A five point likert scale was used. Both Airtel and Safaricom to a very large extent were found to recognize and appreciate that their operational strategies were faced by risks. At Airtel, to a small extent, risks facing operations were analyzed before a strategy was implemented and preventive measures taken. At Safaricom, to a large extent, risks facing operations were analyzed before a strategy was implemented and preventive measures taken.

At both firms, to a very large extent, there was a risk department tasked with identification and management of risks. To a large extent, Airtel had adopted satisfactory risk management strategies while Safaricom had adopted satisfactory risk management strategies. Overall, both Airtel and Safaricom had adopted risk management strategies to large extent as shown in Table 4.4.

Table 4.4: Risk Management Strategy

| Risk Management Strategy | Airtel | | Safaricom | |
|---|---------------|----------------|------------------|----------------|
| | Mean | Std Dev | Mean | Std Dev |
| The company recognize and appreciate that its operational strategies are faced by risks | 4.6129 | 0.3324 | 4.6452 | 0.3668 |
| Risks facing operations are analyzed before a strategy is implemented and preventive measures taken | 2.2258 | 0.2440 | 3.6452 | 0.3553 |
| There is a risk department tasked with identification and management of risks | 4.8065 | 0.4585 | 4.9355 | 0.6028 |
| The company has adopted satisfactory risk management strategies | 4.4839 | 0.3531 | 4.6452 | 0.5398 |
| Overall | 4.0323 | 0.3470 | 4.4677 | 0.4662 |

Source: Research Data (2015)

4.2.5 Capacity Utilization Strategy

The study also sought to determine whether the firms were applying capacity utilization strategies to gain competitive advantage. For both firms, 100% of the respondents indicated that the firms were applying capacity utilization strategies to gain competitive advantage. The respondents were also required to state the exact strategies applied. For Airtel, the respondents indicated that the firm was partnering with other service providers at a cost to utilize idle capacity at a fee, cheaper pricing where there was idle capacity, running promotions to ensure full capacity utilizations and decommissioning idle capacity to reduce operational costs. For Safaricom, the respondents indicated that the company was utilizing capacity strategy by pricing cheaply where the capacity was not put to optimum, running promotions and development of products capable of ensuring optimum use of capacity. The findings on firm strategies compared with those of Wambua, (2014), Kapto and Njeru (2014) and Wanjiru, (2010) who established that various operation strategies to be cost, quality, flexibility and speed of provision of services.

4.3 Operation Management Strategies and Organization Performance

The respondents were required to rate the extent operation management strategies influence the performance of the mobile phone companies using a scale of 1 to 5 where 1 is to not at all, 2, small extent, 3 to moderate extent, 4 to great extent and 5 to very great extent. To a large extent, the respondents indicated that operation management strategies had resulted in increased profits in both companies.

For Airtel, the respondents indicated that the operations management strategies adopted had elevated customer base to a moderate extent while for Safaricom to a large extent. These findings indicate that operations management strategies have effect on organization performance. Further, operation management strategies were found to influences the effectiveness of the firm’s practices to a large extent for Airtel and to a very large extent for Safaricom. Further, operation management strategies had resulted to reduced operations costs of the mobile company to a moderate extent for both Airtel and Safaricom. The respondents were also required to indicate the other ways operation management strategies had influenced financial performance. The respondents indicated that the operations strategies had improved customer service, the quality of services offered by the operators and the number of products offered as presented in Table 4.5.

Table 4.5: Operation Management Strategy and Performance

| Operation management strategies | Airtel | | Safaricom | |
|--|---------------|---------------|---------------|---------------|
| | Mean | Std Dev | Mean | Std Dev |
| The operation management strategies have resulted in increased profits in the mobile company | 4.2079 | 0.4853 | 4.2673 | 0.3975 |
| The elevated customer base of the mobile company has been contributed greatly by the operation management strategies | 3.2277 | 0.4565 | 3.6667 | 0.4911 |
| The operation management strategies influences the effectiveness of the firm’s practices | 4.2871 | 0.4551 | 4.6059 | 0.5519 |
| The operation management strategies result in reduced operations costs of the mobile company | 2.8515 | 0.4240 | 3.4851 | 0.5774 |
| Overall | 3.6436 | 0.4553 | 4.0063 | 0.5045 |

Source: Research Data (2015)

The null hypothesis that there is no relationship between operation management and performance was tested at 95% confident level using the t-test. Performance was measured using five years average performance for each firm. Operations management score was achieved by determining the score of each firm from the questionnaires. Mean difference in performance was compared with mean difference in the operations management strategies adopted by both firms. The t value obtained was 4.7304 while the critical t at 95% (two tailed, degree of freedom 2) was 2.57. This implied that the computed t was falling on the rejection area and hence null hypothesis that there is no relationship between operation management and performance was rejected and alternative hypothesis that there is relationship between operation management and performance was accepted.

4.3.1 Regression Analysis on Operations Management Strategy and Performance

Multiple regressions were carried out to determine the relationship between various operations management practices and performance. The results are shown in Table 4.6 below. The coefficient of correlation obtained was 0.7502 which indicates that strategic management practices have positive and significant effect on performance of the firms. The coefficient of determination of 0.5628 indicates that operation management strategies account for 56.28% of performance. The findings agree with those of Islam, and Ali (2011) who found that the success of a firm is brought about by efficient strategy operations and hence adoption of superior operations strategies compared to competitors lead to higher organization performance.

Table 4.6: Model Summary

| R | R Square | Adjusted Square | R | Std. Error of the Estimate |
|--------|----------|-----------------|---|----------------------------|
| 0.7502 | 0.5628 | 0.4262 | | 0.6540 |

a. Predictors: (Constant), Cost leadership strategy, supply network, capacity utilization, risk management, product differentiation

Source: Research Data (2015)

The analysis of variance results shown in Table 4.7 indicate that operation management strategies have a significant effect on performance since the p value of 0.0135 is less than 0.05. This implies that operations management account for a significantly for changes in organization performance.

Table 4.7: Analysis of the Variance

| | Sum of Squares | df | Mean Square | F | Sig. |
|------------|----------------|----|-------------|----------|----------|
| Regression | 8.809799 | 5 | 1.76196 | 4.119779 | 0.013511 |
| Residual | 6.842928 | 21 | 0.427683 | | |
| Total | 15.65273 | 26 | | | |

a. Predictors: (Constant), Cost leadership strategy, supply network, capacity utilization, risk management, product differentiation

b. Dependent Variable: Company Performance

Source: Research Data (2015)

The model coefficients are shown in Table 4.8 below. However, the p values of all the specific operations strategies are not significant since they are greater than 0.05. To ascertain whether there existed multicollinearity between the study predictor variables, Tolerance and VIF (variance inflation factor) statistics were obtained through SPSS. Multicollinearity occur where VIFs is greater than 10 while tolerance is less than 0.1. For all variables VIF statistics were less than 10 and tolerance levels for all variables were greater than 0.1. Hence, there was no multicollinearity between the independent variables. This implies that the significance of the model was not out of multicollinearity but due to operations strategies adopted. The insignificant of the coefficients statistics implies that operations management strategies singly do not have significant effect on organization performance.

Table 4.8: Model Coefficients

| | Unstandardized Coefficients | Std. Error | Beta | t | Sig. | Tolerance | VIF |
|--------------------------|------------------------------------|-------------------|-------------|----------|-------------|------------------|------------|
| (Constant) | -1.392 | 1.371 | | -1.015 | 0.325 | | |
| Product Differentiation | 0.602 | 0.339 | 0.422 | 1.778 | 0.094 | 0.486 | 2.059 |
| Supply Network | 0.143 | 0.194 | 0.158 | 0.737 | 0.472 | 0.594 | 1.683 |
| Risk Management | 0.292 | 0.254 | 0.261 | 1.151 | 0.267 | 0.531 | 1.885 |
| Capacity Utilization | 0.018 | 0.143 | 0.022 | 0.126 | 0.901 | 0.892 | 1.122 |
| Cost Leadership Strategy | 0.328 | 0.25 | 0.232 | 1.311 | 0.209 | 0.87 | 1.149 |

a. Dependent Variable: Company Performance

Source: Research Data (2015)

4.4 Future of Telecommunication in Kenya

The respondents were required to rate the expected future of the telecommunication in Kenya using a scale of 1 to 5. To a very large extent, the respondents indicated that the telecommunication industry will experience a higher growth rate as compared to the previous years as shown in Table 4.9. To a small extent, respondents indicated that entry of new companies to the industry is hardly expected. This could be due to the high entry barriers in the industry. To a very large extent, competition in telecommunication was expected to intensify in the future likely due to attractiveness in the industry and demand from the customers for cheaper and high quality services. The industry was also expected to be more regulated to a large extent.

In the future to a very large extent, innovations and adoption of superior operational strategies will dictate performance of telecommunication firms and the industry is expected continue to play immense role in delivery of diversified services through mobile services to a large extent. The industry was expected to remain attractive to foreign and local investors to a small extent. The possibility of future merge of the different mobile companies remains and the data services provided by the mobile companies is likely to

intensify even more to a large extent. To a very extent, mobile companies are expected to improve the efficiency of the services they provide. The findings on future of the industry compared with projections of CA (2015).

Table 4.9: Future of Telecommunication Industry

| Statement | Mean | Std Dev |
|---|-------------|----------------|
| The telecommunication industry will experience a higher growth rate as compared to the previous years | 4.5960 | 0.4680 |
| Entry of new companies to the industry is hardly expected | 2.4604 | 0.5111 |
| Competition in telecommunication will intensify | 4.5298 | 0.4559 |
| The industry will become more regulated | 3.8961 | 0.4357 |
| Innovations and adoption of superior operational strategies will dictate performance | 4.7179 | 0.3552 |
| The industry will continue to play immense role in delivery of diversified services through mobile services | 3.8515 | 0.3634 |
| The industry will remain attractive to foreign and local investors | 1.6535 | 0.3430 |
| There is possibility of future merge of the different mobile companies | 1.7475 | 0.3240 |
| The data services provided by the mobile companies is likely to intensify even more | 4.1485 | 0.3558 |
| The mobile companies will improve the efficiency of the services they provide | 4.7575 | 0.3422 |

Source: Research Data (2015)

4.5 Discussion of the Findings

The general objective of this study was to compare the operation management strategies adopted by Safaricom and Airtel Kenya. Notably, these firms are the main players in the mobile telecommunication industry with big differences in performance. All the study objectives were achieved as discussed below.

The first specific objective of the study was to identify the key operation strategies adopted by Safaricom and Airtel Kenya. The key strategies adopted by the firms were found to relate to product differentiation, supply network, risk management, capacity utilization and to a less extent cost leadership strategy. These findings compared with those of Sande (2014) that as a result of increased competition in the industry, as a firm adopts a certain strategy, the other firm introduces a related strategy. This leads to firms in a certain industry having closely similar strategies. Further, Ochako (2007) established

that in response to competitive environment, Safaricom adopted the 3 porter's generic strategies among others.

The second specific objective was to compare and contrast the operation management strategies among the two firms. While the firms were found to have related strategies, the firms differed in the level of adoption of specific strategies. Airtel was found to have adopted product differentiation strategies to a moderate extent with a mean of 3.4839 and standard deviation of 0.3449 while Safaricom had adopted product differentiation strategies to a large extent with a mean of 3.8925 and standard deviation of 0.4645. Airtel had adopted cost leadership strategy to large extent (mean of 4.5098) while Safaricom was found to have adopted cost leadership strategies to a small extent (mean of 2.2581). To a very large extent, Safaricom had adopted supply chain network strategy (mean of 4.6065) and Airtel had adopted supply network strategy to a large extent (mean of 3.7786). On adoption of risk management strategies, both Airtel and Safaricom had adopted risk management strategies to a large extent (mean of 4.0323 and 4.4677 for Airtel and Safaricom respectively).

The study also sought to determine whether the firms were applying capacity utilization strategies to gain competitive advantage. For both firms, 100% of the respondents indicated that the firms were applying capacity utilization strategies to gain competitive advantage. The respondents were also required to state the exact strategies applied. For Airtel, the respondents indicated that the firm was partnering with other service providers at a cost to utilize idle capacity at a fee, cheaper pricing where there was idle capacity, running promotions to ensure full capacity utilizations and decommissioning idle capacity to reduce operational costs. For Safaricom, the respondents indicated that the company was utilizing capacity strategy by pricing cheaply where the capacity was not put to optimum, running promotions and development of products capable of ensuring optimum use of capacity. The findings on firm strategies compared with those of Wambua, (2014), Kapto and Njeru (2014) and Wanjiru, (2010) who established that various operation strategies to be cost, quality, flexibility and speed of provision of services.

The third specific was to determine the relationship between the operation management strategies adopted and the firm performance. To a large extent, the respondents indicated that operation management strategies had resulted in increased profits in the mobile company with a mean of 4.2079 and standard deviation of 0.4853 for Airtel and mean of 4.2673 and standard deviation of 0.3975 for Safaricom. For Airtel, the respondents indicated that elevated customer base of the mobile company had been contributed greatly by the operation management strategies (mean of 3.2277 and standard deviation of 0.4565) while to a large extent for Safaricom with a mean 3.6667 and standard deviation of 0.4911. Operation management strategies were found to influence the effectiveness of the firm's practices to a large extent for Airtel (mean of 4.2871) and to a very large extent for Safaricom (mean of 4.6059). Further, operation management strategies had resulted to reduced operations costs of the mobile company to a moderate extent for both Airtel (mean of 2.8515) and Safaricom (mean of 3.4851).

The null hypothesis that there is no relationship between operation management and performance was tested at 95% confident level using the t-test. Performance was measured using five years average performance for each firm. Operations management will be achieved by determining the score of each firm from the questionnaires. Mean difference in performance was compared with mean difference in the operations management strategies adopted by both firms. The t value obtained was 4.7304 while the critical t at 95% (two tailed, degree of freedom 2) was 2.57. This implied that the computed t was falling on the rejection area and hence null hypothesis that there is no relationship between operation management and performance was rejected and alternative hypothesis that there is relationship between operation management and performance was accepted.

The same was confirmed by multiple regression analysis where a coefficient of determination of 0.7502 was obtained. This indicated that strategic management practices have positive and significant effect on performance of the firms. The coefficient of determination of 0.5628 indicates that operation management strategies account for 56.28% of performance. The findings agree with those of Islam, and Ali (2011) who found that the success of a firm is brought about by efficient strategy operations

The final objective was to evaluate the future of the telecommunication industry in Kenya. To a very large extent, the respondents indicated that the telecommunication industry will experience a higher growth rate as compared to the previous years (mean of 4.5960). To a small extent, respondents indicated that entry of new companies to the industry is hardly expected with a mean 2.4604 and standard deviation 0.5111. To a very large extent, competition in telecommunication will intensify with a mean of 4.5298 and standard deviation of 0.4559. The industry is expected to be more regulated with a mean of 3.8961 and standard deviation of 0.4357.

In the future to a very large extent, innovations and adoption of superior operational strategies was indicated to dictate performance of telecommunication firms (mean of 4.7179) and the industry will continue to play immense role in delivery of diversified services through mobile services to a large extent (mean of 3.8515). The industry will remain attractive to foreign and local investors to a small extent (mean of 1.6535). The possibility of future merge of the different mobile companies remains low (mean of 1.7475), the data services provided by the mobile companies is likely to intensify even more to a large extent (mean of 4.1485). To a very extent, mobile companies are expected to improve the efficiency of the services they provide (mean of 4.7575).

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter provides a summary of the findings of the research, the conclusion, recommendations and suggestion for further studies of the subject matter. This study sought to compare the operation management strategies adopted by Safaricom and Airtel Kenya.

5.2 Summary of the Findings

The general objective of this study was to compare the operation management strategies adopted by Safaricom and Airtel Kenya. The study found that the key strategies adopted by the firms related to product differentiation, supply network, risk management, capacity utilization and to a less extent cost leadership strategy. While the firms were found to have related strategies, the firms differed in the level of adoption of specific strategies. Airtel was found to have adopted product differentiation strategies to a moderate extent while Safaricom had adopted product differentiation strategies to a large extent. Airtel had adopted cost leadership strategy to large extent while Safaricom was found to have adopted cost leadership strategies to a small extent. To a very large extent, Safaricom had adopted supply chain network strategy (mean of 4.6065) and Airtel had adopted supply network strategy to a large extent (mean of 3.7786). On adoption of risk management strategies, both Airtel and Safaricom had adopted risk management strategies to a large extent.

Both Airtel and Safaricom were found to be applying capacity utilization strategies to gain competitive advantage. For Airtel, the respondents indicated that the firm was partnering with other service providers at a cost to utilize idle capacity at a fee, cheaper pricing where there was idle capacity, running promotions to ensure full capacity utilizations and decommissioning idle capacity to reduce operational costs. For Safaricom, the respondents indicated that the company was utilizing capacity strategy by pricing cheaply where the capacity was not put to optimum, running promotions and development of products capable of ensuring optimum use of capacity.

Operation management strategies were found to affect performance of the firms. Operations management had resulted in increased profits in the mobile company, had elevated customer base, influenced the effectiveness of the firm's practices and had resulted to reduced operations costs of the mobile company to a moderate. Multiple regression analysis obtained a coefficient of correlation of 0.7502. This indicated that strategic management practices have positive and significant effect on performance of the firms. The coefficient of determination of 0.5628 indicates that operation management strategies account for 56.28% of performance. The analysis of the variance results indicated that the relationship was significant at 95% confidence level.

The final objective was to evaluate the future of the telecommunication industry in Kenya. The study found that telecommunication industry was expected to experience a higher growth rate as compared to the previous years, entry of new companies to the industry was hardly expected, competition in telecommunication was expected to intensify, and the industry was expected to be more regulated. Innovations and adoption of superior operational strategies was found to dictate performance of telecommunication firms and the industry was expected to continue to play immense role in delivery of diversified services through mobile services. The industry was expected to remain attractive to foreign and local investors to a small extent. The possibility of future merge of the different mobile companies was found to remain low and the data services provided by the mobile companies was likely to intensify even more to a large. To a very extent, mobile companies are expected to improve the efficiency of the services they provide.

5.3 Conclusion

The study concludes that the key strategies adopted by the firms related to product differentiation, supply network, risk management, capacity utilization and to a less extent cost leadership strategy. While the firms were found to have related strategies, the firms differed in the level of adoption of specific strategies. Airtel is the leading firm in cost leadership strategy, risk management and capacity utilization strategies while Safaricom is a leader in product differentiation and supply network strategies. However, the strategies adopted by the firm are related closely with minimal differences.

The study concludes that operation management strategies affect performance of the firms. Adoption of superior operations management result in increased profits in the mobile company, elevated customer base, influence the effectiveness of the firm's practices and leads to reduced operations costs of the mobile company. Therefore, operation management strategies adopted by the firms significantly explain the difference in performance of mobile telecommunication firms.

The study also concludes that telecommunication industry was expected to experience a higher growth rate as compared to the previous years, entry of new companies to the industry was hardly expected, competition in telecommunication was expected to intensify, and the industry was expected to be more regulated. Innovations and adoption of superior operational strategies was found to dictate performance of telecommunication firms and the industry was expected to continue to play immense role in delivery of diversified services through mobile services. The industry was expected to remain attractive to foreign and local investors to a small extent. The possibility of future merge of the different mobile companies was found to remain low and the data services provided by the mobile companies was likely to intensify even more to a large. To a very extent, mobile companies are expected to improve the efficiency of the services they provide.

5.4 Recommendations

Based on the findings of the study, the study recommends that mobile telecommunication firms and other firms in other industries to adopt operations management strategies that are superior in their respective industries. The management should ensure that their firms are leaders in adoption of most efficient strategies. This will ensure that their firms are profitable and have superior products.

The mobile telecommunication industry is expected to experience a higher growth rate as compared to the previous years. This implies increased opportunity for mobile telecommunication firms. The study therefore recommends that the management of the mobile telecommunication firms to prepare their firms appropriately for the future opportunities. The management needs to continuously monitor the industry dynamics and adopt the appropriate operational strategies. This further supported by the fact that entry of new companies to the industry is hardly expected.

The competition in telecommunication was expected to intensify, and the industry was expected to be more regulated, and innovations and adoption of superior operational strategies will dictate performance of telecommunication firms. Therefore, the study recommends that the telecommunication firms to develop measures to drive innovations in their firms as this ensure that the firms will not be perform better irrespective of the competition and more regulation.

5.5 Limitations of the study

The study was limited to two firms in mobile telecommunication firms and did not compare the operations strategies adopted by the all the companies in the telecommunication industry. This therefore implies that the results cannot be generalized or assumed to represent all firms in the telecommunication industry or other industries.

The study also adopted a cross-sectional research design where data was collected at one point in time. The study relied heavily on primary data that was collected at one point on time. This limited the study in that primary data on operational strategies could not determined for the previous years.

5.5 Suggestions for Further Research

The study recommends for a similar study in the telecommunication industry where all the firms in the industry will be studied. A further similar study should be done on other industries. This will ensure that the findings can be generalized.

The study also adopted a cross-sectional research design where data was collected at one point in time. The study relied heavily on primary data that was collected at one point on time. This limited the study in that primary data on operational strategies could not be determined for the previous years. A further study is recommended where a longitudinal design can be adopted where operational management strategies data will be collected over a number of years on a monthly basis. This will ensure that the primary data collected is more accurate and objective.

REFERENCES

- Airtel Kenya Limited (2014). *Annual Report, 2014*. Airtel Kenya Ltd
- Amundson, S. D. (1998). Relationship between Theory-Driven Empirical Research in Operations Management and other Disciplines. *Journal of Operations Management*, 16 (4), pp. 341-359.
- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*. Texas A & M University 1991 Vol. 17.
- Bertrand, J. W. M. & Fransoo, J. C. (2002) Operations Management Research Methodologies using Quantitative Modelling. *International Journal of Operations and Production management*, 22 (2), pp. 241-264
- CA.(2012).http://www.ca.go.ke/resc/downloads/Sector_Statistics_Report_Q3_201314.pdf
- CAK (2008-2014). *Quarterly Sector Statistics Reports*. (Online) Available: <http://www.cck.go.ke/resc/statcs.html>
- CCK, (2012). *Quarterly Sector Statistics Report*, 1st Quarter, July-Sept 2011/2012.
- Charles, N., Onjera, P., Swalehe, A., & Aila, F. (2015).Effective Management of Strategic Issues in the Insurance Industry, Kenya. *European Journal of Business and Management* Vol.7, No.1.
- Aila, O.F., Charles, N.A., Ojera, P.B. & Swalehe, M.A. (2015).Effective Management of Strategic Issues in the Insurance Industry, Kenya. *European Journal of Business and Management*.Vol.7, No.1, 2015
- Comcover, (2008).*Risk Management: Better practice Guide*, Commonwealth Australia, Barton, Department of Finance.
- Creswell, J.W. (1994). *Research Design: Qualitative and Quantitative Approaches*. Thousand Oaks, CA: Sage Publications.
- Davidson, S. (2001). Seizing the competitive advantage. *Community Banker*, Vol. 10 No.8, pp.32-4.
- Drejser, A., Blackmon, K. & Voss, C. (2000). Worlds Apart? - A Look at the Operations Management Area in the US, UK and Scandinavia. *Scandinavian Journal of Management*, 16 (1), pp. 45-66.
- Francisca, M. (2000). Overview of the Internet in Kenya. *International Telecommunication Union (prepared for African Internet & Telecom Summit, Banjul, The Gambia*.
- Freeman, R.E. (1984). *Strategic Management: A Stakeholder Approach*. Boston: Pitman.
- Islam, J.& Ali, M. (2011). Strategic Operations Management in Different Business Organizations in Bangladesh. *Journal of Business and Policy Research* Vol. 6. No. 1. Pp. 75-86
- Johnston R, & Clark, M. (2001). *Service operations management*. New Jersey: Prentice Hall Publishers.

- Jorfi, H. & Jorfi, S. (2011). Strategic Operations Management: Investigating the Factors Impacting Communication Effectiveness and Job Satisfaction. *Procedia Social and Behavioral Sciences* 24 (2011) 1596–1605
- Jung, (2014). Strategy Management of Samsung Electronics Company through the Generic Value Chain Model. *International Journal of Software Engineering and Its Applications* Vol. 8, No. 12.
- Jung, C.S. (2014). The Analysis of Strategic Management of Samsung Electronics Company through the Generic Value Chain Model. *International Journal of Software Engineering and Its Applications* Vol. 8, No. 12, pp. 133-142
- Kapto, J. S & Njeru, A. (2014). Strategies Adopted By Mobile Phone Companies in Kenya to Gain Competitive Advantage. *European Journal of Business Management*, 2 (1), 352-367.
- Karimi, E. K. (2014). *Relationship Between Green Operations Practices and Operational Performance of Hotels in the Coastal Region, Kenya*. Unpublished MBA project, University of Nairobi.
- Kipsang, B. J. (2014). *Operation Risks Management and Wheat Farming Productivity in Narok North Constituency*. Unpublished MBA project, University of Nairobi.
- Kiridena, S. B. & Fitzgerald, A. (2006). *Case study research in operations management. ACSPRI Social Science Methodology Conference* (pp. 1-18). Sydney: ACSPRI.
- Lewis, M. W., (1998). Iterative Triangulation: a Theory Development Process Using Existing Case Studies. *Journal of Operations Management*, Vol 16, pp 455-69.
- Mallin, C.A. (2004). *Corporate Governance*. Oxford: Oxford University Press.
- Meredith, J. (1993). Theory Building through Conceptual Methods. *International Journal of Operations and Production Management*, 13 (5), pp. 3-11
- Meredith, J. (1998). Building Operations Management Theory through Case and Field Research. *Journal of Operations Management*, Vol 16 pp. 441-54
- Mintzberg, H. & Quinn, J.B. (1991). *The Strategy Process* (2nd Edition), Hemel Hempstead: Prentice Hall.
- Mugenda, & Mugenda, (2003). *Research Methods: Qualitative and Quantitative Approaches*. Nairobi: Acts Press.
- Oxford University Dictionary, (2009). London: Oxford Press
- Porter, M.E. (1985). *Competitive Advantage: Creating and sustaining superior Performance*. New York: Free Press.
- Pwc, (2012). Communications Review Telecoms in Africa: Innovating and Inspiring. *A Journal for Telecom, Cable, Satellite and Internet Executives Volume 17, No. 1*
- Rotich, J. C. (2014). *Contract Management Practice and Operational Performance of State Corporations in Kenya*. Unpublished MBA project, University of Nairobi.
- Safaricom (2014). History of Safaricom. Retrieved from <http://www.safaricom.co.ke/>.
- Safaricom limited (2014). *Annual Report*

- Singh, S. (2014). *Leading Telecom Companies of the World 2014*. India: Delhi. Available at www.mbaskool.com/fun-corner/top-brand-lists/9841
- Slack, N., Lewis, M. and Bates, H. (2004). The Two Worlds of Operations Management Research and Practice: Can They Meet, Should They Meet? *International Journal of Operations & Production Management*, 24 (4), pp. 372-387.
- Teece, D. J. (2007). Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance. *Strategic Management Journal*
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic Capabilities and Strategic Management. *Strategic Management Journal*, 18(7), 509-533.
- Thompson, A., Jr., Gamble, J., & Strickland, A., III. (2006). *Strategy: Winning in the marketplace—core concepts, analytical tools, cases* (2nd Ed.). Boston, MA: McGraw-Hill/Irwin.
- Wambua, B. M. (2014). *Operations Strategy and Business Performance in the Mobile Service Providers in Kenya*. Unpublished MBA project, University of Nairobi.
- Wanjiru, (2010). *Competitive Strategies Adopted by Mobile Phone Companies in Kenya*. Unpublished MBA project, University of Nairobi.
- Wernerfelt, B. (1984). *A Resource-Based View of the Firm*. *Strategic Management*
- Yusof, B., & Jamaludin, M. (2013). *Best practices green island resorts*. *Social and Behavioral Sciences*, 105 (20), 20–29.

APPENDICES

Appendix I: Questionnaire

This study seeks to *compare the operation management strategies adopted by Safaricom and Airtel Kenya*. The information provided will be used solely for academic purposes and will be treated with maximum confidentiality. Please fill as accurately and honestly as possible.

1. Please indicate your company Airtel Kenya [] Safaricom []
2. Please indicate by ticking against a number appropriate with regard to the operations strategy employed by your company where 1 is to not at all, 2, small extent, 3 to moderate extent, 4 to great extent and 5 to very great extent.

i. **Differentiation Strategy**

| Statement | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
| The company has innovative culture that encourages continuous adoption of innovative market strategies | | | | | |
| The company products are always designed to look completely different in the market | | | | | |
| The company has leadership product design aimed at ensuring quality product | | | | | |
| Product development is participatory with a department tasked with sole role of product development. | | | | | |
| Quality of product and services offered is key consideration by the firm | | | | | |
| Products offered by the firms are those specifically needed by the market | | | | | |

ii. **Cost Leadership Strategy**

| Statement | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
| The company runs its operations in most efficient way to reduce operational costs | | | | | |
| Operational tasks are well structured within departments and sections to ensure efficiency | | | | | |
| The firm is continuously seeking innovative ways to reduce operational costs | | | | | |
| The company has adopted superior cost management techniques | | | | | |

| Statement | 1 | 2 | 3 | 4 | 5 |
|--|---|---|---|---|---|
| The firm is an operational cost leader in the industry | | | | | |

iii. **Supply Network Strategy**

| Statement | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| The firm has adopted most modern supply chain techniques | | | | | |
| The company supply chain network is well defined and structured to ensure efficiency in operations management | | | | | |
| There is a department solely tasked with supply chain network | | | | | |

iv. **Risk Management Strategy**

| Statement | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| The company recognize and appreciate that its operational strategies are faced by risks | | | | | |
| Risks facing operations are analyzed before a strategy is implemented and preventive measures taken | | | | | |
| There is a risk department tasked with identification and management of risks | | | | | |
| The company has adopted satisfactory risk management strategies | | | | | |

v. **Capacity Utilization Strategy**

Does your company use the capacity utilization strategy in gaining competitive advantage?

Yes [] No []

Please specify the capacity utilization strategies used

- i.
- ii.
- iii.
- iv.

3. i) Please rate the extent operation management strategies influence the performance of the mobile phone companies using a scale of 1 to 5 where 1 is to not at all, 2, small extent, 3 to moderate extent, 4 to great extent and 5 to very great extent.

| Statement | 1 | 2 | 3 | 4 | 5 |
|--|----------|----------|----------|----------|----------|
| The operation management strategies have resulted in increased profits in the mobile company | | | | | |
| The elevated customer base of the mobile company has been contributed greatly by the operation management strategies | | | | | |
| The operation management strategies influences the effectiveness of the firm's practices | | | | | |
| The operation management strategies result in reduced operations costs of the mobile company | | | | | |

- ii) What other ways has operation management strategies influence the financial performance other the ones stated above?

.....

4. Please rate the expected future of the telecommunication in Kenya using a scale of 1 to 5 where 1 is to not at all, 2, small extent, 3 to moderate extent, 4 to great extent and 5 to very great extent.

| Statement | 1 | 2 | 3 | 4 | 5 |
|---|----------|----------|----------|----------|----------|
| The telecommunication industry will experience a higher growth rate as compared to the previous years | | | | | |
| Entry of new companies to the industry is hardly expected | | | | | |
| Competition in telecommunication will intensify | | | | | |
| The industry will become more regulated | | | | | |
| Innovations and adoption of superior operational strategies will dictate performance | | | | | |
| The industry will continue to play immense role in delivery of diversified services through mobile services | | | | | |
| The industry will remain attractive to foreign and local investors | | | | | |
| There is possibility of future merge of the different mobile companies | | | | | |

| Statement | 1 | 2 | 3 | 4 | 5 |
|---|----------|----------|----------|----------|----------|
| The data services provided by the mobile companies is likely to intensify even more | | | | | |
| The mobile companies will improve the efficiency of the services they provide | | | | | |

END

THANK YOU FOR YOUR TIME