

**VALUE CHAIN INITIATIVES AND DEVELOPMENT OF COMPETITIVE  
ADVANTAGE IN SELECTED SECONDARY SCHOOLS IN NAIROBI**

**BY: MONICA MUMBI WAIRUA**

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# DECLARATION

This Management Project is my original work and has not been presented for a degree in any other University.

Signed:

Monica Mumbi Wairua

D61/P/8875/04

Date: \_\_\_\_\_ Ix>|« | p

This Project has been submitted for examination with my approval as the University Supervisor.

Signed:  / ^ f t / Z / ^ X

Dr. Jackson Maalu

Lecturer, School of Business

University of Nairobi

Date:  \0\ / \ 2 ^ 1 1

## **DEDICATION**

To my family; Ian Wairua, Mercy Wambui, Maryanne Njoki and Maryjoy Mugechi, my father Peter Mbugua, my beloved late mother Mary Anne Njoki and my sister Matrona Wangui.

## ACKNOWLEDGEMENT

I thank our Lord for the gift of life and for the opportunity He accorded me to pursue this MBA course. I have learnt a lot. I am also grateful for the valuable support I received from my family, my lecturers, my friends and colleagues. To my classmates, especially Peter and Anne, for their encouragement and assistance through discussions that gave me great insights during my MBA course.

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God bless you all abundantly.

## ABSTRACT

The value chain is vital to the existence, sustenance and growth of an organization. The value chain system fundamentally affects the creation of products and services. It refers to a linkage of inter-related activities that go into developing the best value products and services by adding to the original inputs. Competitive advantage is the key to the organization having an edge over others. It is closely related to the value chain system and in fact derives from it. The activities in the value chain system may either be strengths or weaknesses for a company and these are what in turn determine whether that company will have a competitive advantage over its rivals. Secondary schools, like other organizations, need to evaluate their value chain systems and competitive advantage over other secondary schools. In general, a school's competitive advantage is indicated by its performance in the KCSE examination administered by the KNEC.

This study aims at determining the linkages of the value chain initiatives in selected secondary schools in Nairobi, as well as determining to what extent value chain activities contribute to competitive advantage in those schools. The research was based on a census survey aimed at identifying the value chain activities contributing to competitive advantage in secondary schools in Nairobi. Eighteen top-ranking secondary schools formed the population of study. All of these offer the 8-4-4 system of education. Primary data collection was through questionnaires administered through a drop-and-pick-later method. The data thus collected was analyzed using measures of central tendency.

From the findings of the research, it was evident that outbound logistics and operations are the most important factors in the facilitation of value chain analysis. Marketing and inbound logistics also feature prominently. In conclusion, it may be seen from the research findings that, secondary schools can stay competitive if they provide quality teaching and learning, provide guidance and counseling, and manage efficiency in service delivery.

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# CHAPTER ONE: INTRODUCTION

## 1.1 Background

Organizations constantly evaluate their performance by analyzing their strengths and weaknesses through what is today called the SWOT analysis. Diagnosing an organization's key strengths and weakness requires the adoption of a disaggregated view of the firm. Examining the firm across distinct functional areas is one way to disaggregate the firm for internal analysis purposes. Another way is to use a framework called the "value-chain" (Pearce and Robinson, 2004).

A value chain is a systematic way of viewing the series of activities that a firm performs to provide a product or service to its customers. It disaggregates a firm into its strategically relevant activities in order to understand the behavior of the firm's costs and its existing or potential sources of differentiation. A firm gains competitive advantage by performing these activities, the key internal factors, better than its competitors (Porter, 1985).

Secondary schools are not an exception to organizations that have a value chain. They are constantly taking in raw materials, these being students, processing them and giving output in terms of the grades these students attain at the end of the course as well as the personalities they develop in these students. The grades attained play an important role in determining the students' placement in institutions of higher learning. However, different schools vary in the kind of value chain activities they lay emphasis on. Whereas teaching and learning are basic value chain activities in all schools, there are other activities. These include co-curricular



activities, career guidance, parent involvement as well as guidance and counseling. Hence a study is necessary to establish the value chain-competitive advantage relationship in secondary schools.

### **1.1.1 The Concept of Value Chain and Competitive Advantage**

The term value chain describes the activities within and around an organization that together create a product or service. It is a system of interdependent activities that are related by linkages within the value chain (Johnson and Scholes, 2002). The value chain is so called because each link in the chain adds some value to the original inputs (Lawton et al, 2001). It is the cost of these value activities and the value that they deliver that determines whether or not best value products or services are developed. For any firm, in any business, the value chain is the linked set of value-creating activities all the way from basic raw materials to the ultimate end-use products delivered to the customer (Johnson and Scholes, 2002). It is a system of interdependent activities that are related by linkages within the value chain. Thompson et al (2007) indicate that, all of the activities that a firm performs internally combine to form a value chain - so called because the underlying intent of a company's activities is to do things that ultimately create value for buyers.

Porter (1985), states that competitive advantage derives from the linkages among the value chain activities, as well as from the individual activities themselves. Competitive advantage is brought about by analyzing critically the value chain - a general framework for thinking strategically about activities involved in any business and assessing their relative cost and role in differentiation. Differences among competitor value chains are a key source of competitive advantage (Porter, 1980). Barney (1991) proposes that competitive advantage can be derived

from the possession of resources that are valuable, rare, imperfectly imitable and imperfectly substitutable.

A firm typically performs a number of discrete activities that may represent key strengths and weaknesses for the firm. Through the systematic identification of these discrete activities, managers using the value chain approach can target potential strengths and weaknesses for further evaluation (Pearce and Robinson, 2004). According to Porter (1990), competitive advantage arises out of the way in which firms organize and perform the value chain activities. It cannot be understood by looking at a firm as a whole. It stems from the many discrete activities that a firm performs in designing, producing, marketing, delivering and supporting its product (Porter, 1985).

Successful firms with enduring sources of competitive advantage not only identify activities that add value, but also recognize the important interrelationships among value activities (Dess and Picken, 1993). Firms should, therefore, clearly identify their value chain activities and the linkages between them. They should then focus on these in its day-to-day activities in order to ensure they attain competitive advantage.

### **1.1.2 Secondary Education in Kenya**

The secondary school cycle in our education system is important because it prepares students for higher education in universities and tertiary colleges. Students sit for the Kenya Certificate of Secondary Education (KCSE) examination at the end of a four-year course. The Kenya National Examinations Council (KNEC) administers this examination. KNEC is a national examining body established by the Government of Kenya in 1980 by an Act of parliament

(CAP 225A). The KCSE results enable students to get admission to university and other tertiary colleges, the course they get admitted to being determined by the grades they attain.

The KNEC uses the KCSE results to avail to the public two sets of information. First, the individual students are graded based on their performance in the different subjects that they studied. Second, the average performance of all the students in the school is used to rank the schools under various categories, that is, national, provincial, district and private. Schools can therefore study these two sets of information, gauge their own performance and hence work toward attainment of higher goals. To this end, therefore, it can be assumed that national examination rankings are a fairly accurate measure of schools' performance. A school's high performance can hence be used as an indicator of competitive advantage.

The performance of a school is determined by a number of activities undertaken within the school. Key among these is teaching and learning. However, on their own they may not bring out the best performance in a school and so need to be complemented with other activities. These other activities, which help to bring out the best performance, can be termed the value activities of a school. It is important to identify those activities within the education process that enable schools to perform well in national examinations. Once identified it is also important to focus on the performance of these activities in order to ensure that indeed the school does attain competitive advantage.

### **1.1.3 Secondary Schools in Nairobi**

Currently Nairobi Province has two hundred and one schools, both private and public offering secondary education. Of these, there are 58 public schools and 143 private schools (Government of Kenya, 2011).

Prior to the 1990s, competition in performance between the schools was almost insignificant. This was because all schools were government aided and hence had similar facilities. With the entry of private schools into the education sector in the mid 1990s the environment changed. Competition in performance between schools, both public and private, began to increase. This forced school management teams to start working out strategies to enhance their performance. In the ranking done by Nairobi Provincial Director's Office, of the 201 schools in Nairobi Province that did KCSE in 2010, 44 public schools were ranked among the top 100 while 56 were private schools (Government of Kenya, 2011). However, given that there are 58 public schools in the province the performance of public schools was commendable.

## **1.2 Statement of the Problem**

The value chain allows an organization to understand what activities it performs, classify them into primary and secondary activities and most importantly of all, understand which ones add value to the customer. This type of analysis can help in understanding which activities should be outsourced and which ones should remain in-house or be brought in (in-sourcing). However, the real power of the value chain is that it allows an organization to understand what the links are between the various activities. Porter (1985) has said that it is how a company links its activities together, rather than the activities themselves that gives a company advantage over others.

Value chain studies carried out in various organizations have demonstrated that the integration of members of the value chain results in an improvement in productivity and profitability of organizations (Ilyas et al, 2007). Strategists, who use the value chain to conceptualize their organizations as part of a larger process, frequently gain valuable insights that are hidden from

those who tend to view the organization as a self-contained entity with clearly defined boundaries that isolate it from its environment (Dess and Picken, 1993).

The good performance of a school is determined by various activities in addition to teaching and learning. Schools need to carry out selection, admission and induction of students. Once admitted, teaching and learning take place. In addition to this, students participate in co-curricular activities, are given guidance and counseling and when necessary disciplinary action is taken against them. To facilitate all this, schools need to recruit teachers, induct them and make available all the resources necessary to maintain students in school and facilitate learning. Through these activities the school can produce outstanding results in the end of course examinations hence giving parents value for money. Such schools are the pride of the government as well as the local communities of the area where they are located. It is these activities that give the schools competitive advantage depending on how well the school's management understands and applies them. Each school management team should therefore make an analysis of its school's strengths and weaknesses and determine how best to apply the different value chain activities.

A number of researches have gone into studying factors that lead to good performance in secondary schools. Oluoch (2001,) in her survey found out that it is more than just coaching and drilling that makes certain schools perform better than others. These activities can be imitated and if they were the ones contributing to competitive advantage, everyone would adopt them. However, it seems clear that it takes more than just coaching and drilling to make schools excel. Rose (2006), in her study on the role of benchmarking on performance of national schools in

Nairobi also found out that schools that benchmark have improved performance hence sound competitive advantage.

To my knowledge, no empirical studies have been reported on value chain and competitive advantage in secondary schools in Kenya. Thus the purpose of this study is to investigate the value chain activities applied in secondary schools and to establish which of these activities contribute to competitive advantage in secondary schools in Nairobi. In this study, good performance in national examinations will be equated to competitive advantage.

### **1.3 Objectives of the Study**

The objectives of this study were:

- i. To determine the value chain initiatives in selected secondary schools in Nairobi.
- ii. To determine to what extent value chain activities contribute to competitive advantage in selected secondary schools in Nairobi.

### **1.4 Significance of the Study**

The findings of the study were intended to benefit the following key stakeholders:

They may assist academicians to broaden their syllabus on value chain and competitive advantage. Thus it may contribute to the literature and instruction on strategic management in Kenya. This is because most of the strategic management knowledge available is on the Western practices. The findings may also form a basis for research into other areas of strategic

management with respect to value chain, competitive advantage, and continuous improvement on competitiveness.

They may also be of importance to the officials of the Ministry of Education as they conduct quality control in schools. The Ministry of Education Science and Technology (MOEST), through the Kenya Education Staff Institute (KESI) would get an insight on areas of management that are critical to sustain good performance as it goes about strengthening the capacities of educational managers at the secondary school level.

For principals and teachers in both public and private secondary schools, this study would help them get an insight into how to build good performance or competitive advantage thereby improving the performance of their schools. Value chain studies have been carried out mainly on profit making organizations. However, this study will show the applicability of the value chain in non-profit making organizations such as schools. The prestige of the school and the customer satisfaction attained will take the place of the profit margin in the model.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Concept of Value Chain**

The value chain was first described by McKinsey and then popularized by Porter (1985). It consists of activities that create and build value and they culminate in the total value delivered by the organization. Every organization typically performs a number of discrete activities that may represent key strengths or weaknesses for the firm (Pearce and Robinson, 2004). All these activities are aimed at converting raw material into end products with value added for the end user.

Value chain is more generally defined as a sequential arrangement of processes or activities that operate on inputs, add value and collectively produce a product or service created for and delivered to an end user (Dess and Picken, 1993). Value chain analysis is a method of decomposing the firm into strategically important activities and understanding their impact on cost and value (Stabell and Fjeldstad, 1998). According to Johnson and Scholes (2002), the value chain describes the activities within and around an organization, which together create a product or service. The cost of these activities and the value they deliver determines whether or not best value products or services are developed.

Porter (1985) explains that the basic activities that an organization undertakes can be grouped into two broad categories namely, primary activities and support activities. These are illustrated in the figure in appendix I (Pg. 37). Primary activities are involved in the physical creation of



the firm's product or service. They can be grouped into five main areas, these being: inbound logistics, operations, outbound logistics, marketing and sales, and service.

Inbound logistics are the activities concerned with receiving, storing and distributing the inputs to the product or service. Operations then transform the various inputs into the final product or service. These include machining, packaging, assembly, and testing. Outbound logistics include the activities concerned with collection, storage and distribution of the product to the customers (Porter, 1985).

Once production is complete, marketing and sales provide the means by which consumers or users are made aware of the product or service and are able to purchase it. Such activities include sales administration, advertising, selling, etc. After the sales activity has occurred, services enhance or maintain the value of a product or service through installation, repair, training and provision of spares (Porter, 1985).

All these activities constitute the supply chain. They involve the facilities that procure raw materials, transform them into intermediate and then final products and deliver the products to customers through a distribution system (Lee and Billington, 1995). The supply chain activities must be synchronized to achieve maximum benefit. With functional specialization each function is expected to perform specific value-adding activities required to achieve organizational goals. However, such specialization leads to differences in goals and in interpersonal relationships (Hahn, Duplaga and Hartley, 2000). The importance of integrated management of the supply chain cannot be overstated (Lee and Billington, 1995).

Support activities provide infrastructure that enhances the productivity of the primary activities (Ellig, 2001). They help to improve the effectiveness or efficiency of the primary activities and are divided into four areas: procurement, technology development, human resource management and firm's infrastructure (Porter, 1985).

Procurement, which is the process for acquiring the various inputs to the primary activities, occurs in many parts of the organizations (Porter, 1985). It facilitates availability of inputs for the supply chain. Technology development includes all the value activities that have technology, even if it is just know-how. Human resource management is concerned with recruiting, managing training, developing and rewarding people in the organization. The way in which this function is handled determines how an organization as a whole runs and whether it is innovative (Porter, 1985). Firm's infrastructure involves the management of an organization's systems of planning, finance, quality control and information. It also includes the organization's culture and all these determine the organization's level of rigidity or innovation (Porter, 1985).

The value chain framework has become a powerful management tool for strategic planning, with the aim of maximizing value creation while minimizing costs (Johnson and Scholes, 2002). According to Porter (1985) the overall value creating logic of the value chain with its generic categories of activities is valid in all industries. What activities are vital to a given firm's competitive advantage, however, is seen as industry dependent (Strabell and Fjeldstad, 1998). Understanding the value chain enables decision makers to differentiate their services by capitalizing on their uniqueness drivers (Prahalad and Hamel, 1990).

Porter (1985), further explains that a firm's value chain is embedded in a larger stream of activities that he terms the "value system" This value system includes the value chains of the firm's suppliers, the firm itself, the firm's distribution channels and the firm's buyers or customers. The value chains of the other components of the value system, besides the firm itself, affect or influence the firm's own activities. It is therefore an important management task to capture the value generated along the value system. Porter (1985), goes on to say that gaining and sustaining competitive advantage depends on understanding not only a firm's value chain but how the firm fits in the overall value system.

## **2.2 Concept of Competitive Advantage**

Competitive advantage, also called business specific advantage, refers to some proprietary characteristic of a business, which cannot be imitated by competitors without substantial cost and risk. It influences the decisions concerning which activities and technologies along the value added chain a business should concentrate its resources, relative to its competitors. (Rue and Byars, 1992)

According to Hill and Jones (2000), competitive advantage is the ability of a company to outperform competitors within the same industry. Competitive advantage can also be defined as an advantage over competitors gained by offering consumers greater value, either by means of lower prices or by providing greater benefits and services that justify higher prices (Johnson and Scholes, 2002)

Day (1984) and Porter (1987) see competitive advantage as the objective of strategy, arguing that superior performance will automatically result from a competitive advantage. Reed and DeFillippi (1990) suggest that competitive advantage can be derived from numerous sources and that strategy manipulates the sources of advantage under the firm's control in order to generate a competitive advantage.

Porter (1985) suggests three "generic" competitive strategies that could be used to gain competitive advantage. These relate to the organization's impact on relative cost or differentiation. The two basic types of competitive advantage combined with the scope of activities for which a firm seeks to achieve them lead to the generic strategies for achieving high performance: cost leadership, differentiation and focus.

An organization adopting a cost leadership strategy aims at becoming the lowest-cost producer in its industry and must therefore exploit all sources of cost advantage (Porter, 1996). It may do this by concentrating on aspects of its value chain that are especially valued by customers and outsourcing the other activities. Sources of cost advantage include economies of scale, proprietary technology, preferential access to raw materials, etc.

In the differentiation strategy, an organization seeks to be unique in its industry in certain areas. It therefore focuses on one or more attributes that buyers in the industry perceive as important, and positions itself uniquely to meet those needs. It then charges a premium on its products for the uniqueness. Differentiation can be based on the product itself, the delivering system or the marketing approach. The organization must be truly unique at something in order to be perceived as unique. One way of achieving competitive advantage is through competence based

approaches in which an organization tries to build differentiation as its core competences, which if peculiar to the organization, will be difficult for the competitors to imitate (Johnson and Scholes, 2002).

The focus strategy rests on the choice of a narrow scope within an industry. An organization using this strategy, therefore, selects a segment or groups of segments in the industry and concentrates its efforts on serving these alone (Porter, 1985). The strategy could be cost focus or differentiation focus. In cost focus, the organization will be targeting a price-sensitive market segment and will therefore strive to offer the lowest prices possible. In the differentiation focus, the organization seeks to provide high-perceived value justifying a substantial price premium to a selected market segment (Johnson and Scholes, 2002).

Companies may use any one or combination of these strategies to gain a competitive advantage. Businesses that are able to create a competitive advantage by using one or more of these strategies will experience above-average profitability within their industry. Businesses that use both cost and differentiation strategies to achieve competitive advantage usually realize the highest levels of profitability within their industry (Porter, 1979 & Pearce and Robinson, 2004). Corporations that gain competitive advantage in their industries usually adopt specific strategies including innovation, improved processes, higher quality, lower cost and marketing in order to achieve this goal.

However, even if businesses are able to gain competitive advantage and achieve higher levels of profitability, rivals are usually quick to copy their strategies or even improve on their initiatives, and thus result in a loss of competitive advantage (Ghemawat, 1986; Reed and DeFillippi, 1990;

Porter, 1996; Markides, 1997; Zook, 2001a; Zook and Allen, 2001). Ghemawat (1986) found that competitors secure detailed information on 70 percent of all new products within a year of their development.

When a firm has achieved a competitive advantage and successfully raises the barriers preventing imitation by competitors it thereby "resists erosion by competitor behaviour" and achieves sustainable competitive advantage (Porter, 1987). Preventing imitation, however, does not last forever. Thus the firm's ability to delay this eventuality is essential in order to derive the maximum benefit from any competitive advantage (Reed and DeFillippi, 1990; Porter, 1996; Pearce and Robinson, 2004 & Christensen, 2001).

Ensuring sustainability of competitive advantage requires a significant investment from the firm in order to raise barriers to imitation. While it is clear that no advantage is indefinitely sustainable and that no barriers to imitation are insurmountable, several options exist for firms to prolong competitive advantage (Porter, 1987, 1996; Campbell and Goold, 1995; Reed and DeFillippi, 1990; Pearce and Robinson, 2004 & Christensen, 2001). These include the following:

Firstly, arguably, the most effective barriers to imitation are achieved when competitors do not comprehend the competencies on which the advantage is based (Reed and DeFillippi, 1990; Zook and Allen, 2001). This refers to situations where it is difficult for rivals to understand how a firm has created the advantage it enjoys (Pearce and Robinson, 2004).

Secondly, fit is fundamental to the sustainability of advantage. It is harder for a rival to match an array of interlocked activities than it is to copy a single activity. Consider the simple exercise: the probability that rivals can match an activity is usually less than 1, e.g. 0.9. The probabilities then reduce very rapidly when more activities are added to the equation, e.g.  $0.9 * 0.9 * 0.9 = 0.66$ . Rivals that try to copy a firm with an array of interlocked activities (fit) will have to reconfigure many activities in order to compete effectively, thus creating a formidable barrier to imitation (Porter, 1996).

Thirdly, according to Christensen (2001), the practices and business models that constitute competitive advantage are only relevant at a particular time with particular factors at play and under certain conditions. Thus competitive advantage in itself is not sustainable. Strategists should therefore consider the underlying factors that underpin competitive advantage and attune themselves to how these factors change over time and continuously match strategy with these factors and conditions (Christensen, 2001).

Lastly, physically unique resources are per definition impossible to imitate. Pearce and Robinson (2000) suggest examples of physically unique resources such as strategically located real estate positions, patents, copyrights and mineral rights. They concede, however, that only in rare cases can resources be considered to be physically unique. Path-dependency as a source of competitive advantage results from the difficulty through which another firm must go in order to create the same competitive advantage that the firm possesses. For example, Dell's system of selling direct via the Internet and their unmatched customer service provides a path-dependent organisational capability, since it would take any competitor years to develop the expertise, the infrastructure, reputation and capabilities necessary to compete with Dell (Pearce and Robinson, 2004).

According to Zook and Allen (2001), the key to unlocking sources of growth is investment in and building unique strength (competitive advantage) in the core business. Continuous investment in this unique strength in the core business will result in sustainable competitive advantage in the core business. They further state that achieving sustained and profitable growth is extremely difficult without having at least one strong and differentiated core business on which to build. Building this strong and differentiated core competence would require access to some form of competitive advantage. The sources of competitive advantage, according to Reed and DeFillippi (1990), are as numerous as there are activities in the firm.

### **2.3 Relationship between Value Chain and Competitive Advantage**

Thompson (1997) points out that whilst strategic success depends on the way the organization as a whole behaves and the way the managers and functions are integrated, competitive advantage stems from the individual and discrete activities that a firm performs. He further explains that, value chain analysis is a systematic way of studying the direct and support activities undertaken by a firm from which should arise greater awareness concerning costs and the potential for lower costs and for differentiation.

Porter (1985) argues that competitive advantage is created and sustained when a firm performs the most critical functions either more cheaply or better than its competitors. The critical functions being those identified in the value chain analysis.



Through an effective value chain analysis, an organization can identify new ways of performing activities to create value. These innovations are usually firm specific and are therefore difficult for competitors to recognize, understand and imitate. The greater the time necessary for competitors to understand how a firm is creating and capturing value through its execution of primary and support activities, the more sustainable is the competitive advantage gained by the innovating firm (Hitt et al, 1997)

Although competitive advantage arises from one or more sub-activities comprising the value chain, it is important not to think of the chain merely as a set of independent activities, but rather as a system of interdependent activities. Linkages in the value chain, which are relationships between activities, are very important (Thompson, 1997). Porter (1985) argues that linkages must be understood and managed if the firm is to succeed in creating and sustaining competitive advantage.

Customers purchase value, which they measure by comparing the products and services of an organization with similar offerings from competitors. Porter (1990) pointed out that to gain competitive advantage over rivals, a firm has two options:

To provide comparable buyer value, but perform activities more efficiently than its competitors (lower costs).

To perform activities in a unique way that creates greater buyer value and allows a higher price (differentiation).

Value chain studies have been conducted in a number of sectors. One such study was conducted in the textile and garment industry in Kenya. It aimed at identifying the key factors in the chain, estimating the value added at each stage, and establishing the chains' spatial dimensions and its

mode of governance. It also aimed at establishing the linkages between firms and their subsidiaries (McCormick, 2005).

In Japan value chain analyses have led to automobile industries in Japan moving from producing automobile parts to outsourcing them. This has helped to reduce the costs of holding inventories in the value chain as a whole and increased the scope for decentralized component manufacture. Value chain analysis provides valuable insights into policy formulation and implementation (Kaplinsky, 2000).

Value chain studies were also conducted on Ericsson Radio Systems and Tokyo Digital Phone companies. The two companies had developed a business relationship in a business network context. The results of the studies showed that mutuality in business network relationships is critical in developing inter-firm systems of workflow interdependence that promote the creation of value. They also showed that firms in business markets that organize and share an unbound structure of interdependent activities achieve greater value than would be the case if they did not engage in relationship development (Holm et al, 1999).

In America, value chain studies were carried out on 59 American and European e-businesses through case study analyses. The results of the studies suggested that the value creation potential of e-businesses hinges on four interdependent dimensions, namely: efficiency, complementarities, lock-in and novelty (Amit and Zott, 2001).

Value chain studies have also been conducted on over 2000 joint ventures and licensing agreements. These studies revealed that firms learn to create more value as they accumulate

experience in joint venturing, whereas there is no evidence that firms learn to create value as they accumulate experience in licensing. The learning effects were found to be strongest in R&D and production joint ventures as compared to marketing joint ventures for example (Anand and Khanna, 2000).

Though none of the above studies relate to schools, the findings clearly indicate that value chain analyses have been very useful in helping organizations improve in value creation. The studies help to bring out the advantages of certain activities in the value chain which add value to the organizations' output. A study on value chain activities in secondary schools is therefore expected to bring out aspects of schools' value chains which if focused on could help the schools improve in their performance and hence attain competitive advantage. Value chain activities in secondary schools include teaching, learning and evaluation, co-curricular activities, career guidance, guidance and counseling and parental involvement. Different schools have different ways in which they employ the different value chain activities and they may not employ all of these. The study therefore aims at establishing the value chain activities that give schools the best competitive advantage.

## **CHAPTER THREE: RESEARCH METHODOLOGY**

### **3.1 Research Design**

The research was a census survey, to identify the value chain activities that contribute to competitive advantage in secondary schools in Nairobi. This method made it possible for the researcher to obtain quantitative data from a cross section of the population chosen. A survey is a measurement procedure that involves asking questions of respondents. It is a non-experimental, descriptive research method that enables a researcher to collect data on phenomena that cannot be directly observed. A survey enables the researcher to study a number of situations usually through questioning people in order to gain insights into their behavior, opinions and functioning of their organizations.

### **3.2 Population**

The population of study consisted of 18 top ranking secondary schools offering the 8-4-4 system of education in Nairobi (Ministry of Education, 2003-2007). A top ranking school is one that has appeared in the list of top 100 schools in the country consistently for a period of time. In this study, schools that have appeared in the top 100 list consistently between 2003 and 2007 were studied. The year 2008 was not considered because in that year schools were not ranked.

### **3.3 Data Collection**

Primary data was collected through the use of questionnaires. The questionnaires were administered through a 'drop-and-pick-later' method. The respondents were school principals, the deputy principals or deans of studies.

Each questionnaire consisted of three parts. Section A: General information about the institution. Section B: Value Chain Activities in Secondary Schools. Section C: Application of Competitive Strategies.

The 5-point Likert scale was used for data collection because it is relatively easy to develop and use. It is also easy to complete the questionnaire hence less likely to put off the respondent (Cooper & Emory, 1995).

### **3.4 Data Analysis**

Once the data was collected, the information was coded and analyzed using measures of central tendency. Percentages were computed for analysis of the data relating to the demographics of the top ranking secondary schools. Mean scores were then computed to help determine the linkages in value chain activities in secondary schools and the extent to which value chain activities influence competitive advantage in the secondary schools.

# **CHAPTER FOUR: DATA ANALYSIS, FINDINGS AND DISCUSSION**

## **4.1 Introduction**

This chapter presents in summary the statistically analyzed primary data that was gathered from the study. A total of 16 questionnaires were completed out of the 18 questionnaires sent to the field representing a response rate of 89%. Summaries of the collected data in each aspect are presented in percentage and mean scores (as set out in chapter three). The specific objectives for the study were to determine the value chain initiatives in selected secondary schools in Nairobi and to determine the relationship between value chain activities and competitive advantage in secondary schools in Nairobi.

## **4.2 Profile of the schools studied**

The population studied consisted of the top ranking schools offering the 8-4-4 system of education in Nairobi. These are schools that have appeared in the list of top 100 schools in the country for a period of time, precisely from 2003 to 2007. They were a total of 18 schools although only 16 responded. Of these, 4 were national schools, 6 were provincial schools and 6 were private schools.

Among these top performing schools some are quite old and well established. Lenana School, previously known as Duke of York School, was established in 1949. It is a national school with a capacity of about 1000 students. Nairobi School (formerly Prince of Wales School) started in 1931. It, too, is a national school with a capacity of 1000 students. The Kenya High School founded in 1908 was previously known as European Girls' School. It is a national school with a capacity of about 900 students. State House Girls' High School, previously known as New

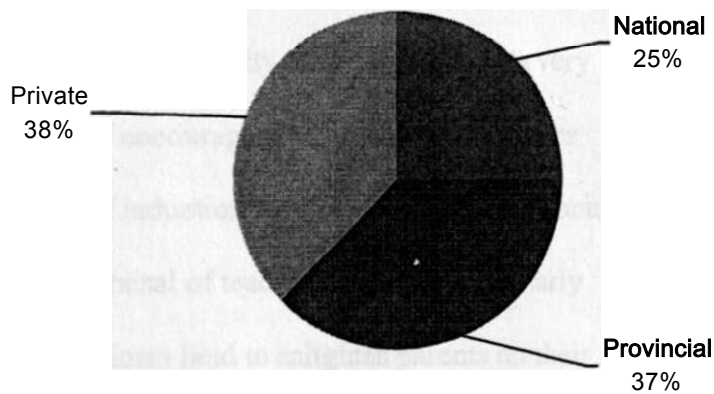
Girls' School was started in 1954. It is a provincial school and has a capacity of 800 students. Starehe Boys' Centre founded in 1959 has a capacity of about 800 students and is a national school. All these schools enjoy excellent facilities and their academic performance has been exemplary.

Other public schools, such as Moi Forces Academy (1980) with a capacity of about 850 students, were started much later, but have also managed to compete favorably with the older schools. More recently many private schools have come up, although some like Strathmore School and Kianda School were established earlier, in 1977, bringing the number of private schools to 143 compared to 58 public schools in Nairobi Province (Government of Kenya, 2011).

### 4.3 Value Chain Initiatives in Secondary Schools

Thirty seven and a half percent (37.5%) of the respondents were from Provincial schools while a farther 37.5% were from private schools. The rest 25% were from National schools.

*figure 4.2.1 (Profile By category of the scfioc*



Source: Field data (2010)

In the study the respondents were expected to rate the extent to which the statements applied to their schools ranging from Very Large Extent (5), Large Extent (4), Some Extent (3), Small Extent (2) to Not At All (1). The mean scores were interpreted as follows:

Very large extent:	4.5 - 5
Large extent:	3.5-4.49
Some extent:	2.5-3.49
Small extent:	1.5-2.49
Not at all:	1.0-1.49

### **4.3.1 Service as a Value Chain activity**

In a value chain, service aims at enhancing or maintaining the value of a product (Porter, 1985).

In a school set-up the product is the education imparted in the person or the educated person who finally graduates from the school. In this study, service was included because it was necessary to find out what the schools do to ensure they maintain high quality products.

Respondents were expected to answer the following questions giving a score of 5 to 1 where 5 indicates that the activity was carried out to a very large extent and 1 not at all.

1. Staff encouraged to pursue further studies
2. Staff induction for new staff members done regularly
3. Appraisal of teachers carried out regularly
4. Seminars held to enlighten parents on their role in their children's development

The findings were as shown in table 4.3.1:



**Table 43.1 Service**

	n	%	n	%	n	%	n	%	n	%	Mean	Comment
Staff encouraged to pursue further studies	0	0	2	13	5	3	3	19	6	38	3.81	Large extent
Staff induction for new staff members done regularly	0	0	0	0	6	38	9	56	1	6	3.69	Large extent
Appraisal of teachers carried out regularly	0	0	1	6	6	38	7	44	2	13	3.63	Large extent
Seminars held to enlighten parents on their role in their children's development	2	13	1	6	3	19	8	50	2	13	3.44	Some extent
j Average											3.64	

Source: Field data (2010)

Service as a value chain activity rated slightly above average. 57% of the schools encouraged their staff to pursue further studies and also did regular appraising of their teachers. Induction of new staff members was carried out by 62% of schools while 63% held seminars to enlighten parents on their role in their children's development. The rating of service as slightly above average shows that it is not a key factor in giving schools competitive advantage. It may contribute to some extent, but other activities may be the key factors.

### 4.3.2 Outbound logistics as a Value Chain activity

Outbound logistics include those activities concerned with collection, storage and distribution of the product to customers. In the education sector, involve those activities that prepare the students for their life after school. In this study there was a need to find out what schools do to prepare students for their life after school. The data was captured through the following questions;

1. School has an active guidance and counseling department
2. Students assisted to make informed decisions about career choices
3. Students issued with recommendation letters after completion of school

The findings were as shown in table 4.3.2:

**Table 43.2 Outbound Logistics**

	Not at all		Small Extent		Some Extent		Large Extent		Very Large extent		Mean	Comment
	n	%	n	%	n	%	n	%	n	%		
School has an active guidance and counseling department	0	0	0	0	1	6	2	13	13	81	4.75	Very large extent
Students assisted to make informed decisions about career choices	0	0	0	0	1	6	7	44	8	50	4.44	Large extent
Students issued with recommendation letters after completion of school	0	0	1	6	1	6	4	25	10	63	4.44	Large extent
Average											4.54	

Source: Field data (2010)

The findings show that guidance and counseling as well as career guidance rated very highly. These seem to be some of the key factors that give schools competitive advantage in academic performance. Guidance is a major source of motivation for students and when they are able to see clearly where they are going they work hard in their studies. Issuance of recommendation letters to students after completion of school also seems to be a key factor from the findings. It enhances the students' sense of purpose and hence serves as a motivating factor.

### 4.3.3 Operations as a Value Chain activity

Operations are all those activities that are undertaken to transform inputs into final products. In a school set up, a number of activities are undertaken to facilitate the teaching and learning process. These include content delivery in the classroom, evaluation and follow-up done on the students. Data on these activities was captured through a number of questions and the responses were as recorded in table 4.3.3:

**Table 4.3.3 Operations**

	Not at all		Small Extent		Some Extent		Large Extent		Very Large extent		Mean	Comment
	n	%	n	%	n	%	n	%	n	%		
Students marks recorded centrally and readily available	0	0	0	0	0	0	1	6	15	94	4.94	Very large extent
Schemes of work and examinations prepared at departmental level	0	0	0	0	0	0	4	25	12	75	4.75	Very large extent
Students evaluated through frequent testing	0	0	0	0	1	6	3	19	12	75	4.69	Very large extent
New students undergo an induction process	0	0	0	0	1	6	4	25	11	69	4.63	Very large extent
Prompt feedback to students on performance in tests/examinations	0	0	0	0	1	6	5	31	10	63	4.56	Very large extent
•Open communication and cordial relations between teachers and students	0	0	0	0	1	6	5	31	10	63	4.56	Very large extent
Regular staff departmental meetings held	0	0	0	0	1	6	6	38	9	56	4.50	Very large extent
Remedial classes given to low achieving students	0	0	0	0	2	13	4	25	10	63	4.50	Very large extent
Staff meetings held to discuss students' performance and progress	1	6	0	0	0	0	4	25	11	69	4.50	Very large extent
Students participate in co-curricular activities	0	0	0	0	3	19	3	19	10	63	4.44	Large extent
Parent-teacher discussions on students academic performance and progress held regularly	0	0	1	6	1	6	6	38	8	50	4.31	Large extent
Students with special needs or problems identified and assisted	1	6	1	6	1	6	5	31	8	5	4.13	Large extent
Students participate in inter-schools' symposiums and other academic competitions	0	0	2	13	3	19	4	25	7	44	4.00	Large extent
Average											4.50	

Source: Field data (2010)

On average, operations were rated very highly by most respondents. Under operations a total of 13 activities were studied and of these 9 were rated as taking place in the schools to a very large extent. The remaining 4 were taking place to a large extent. The activities under operations include induction of new students, frequent testing, prompt feedback on performance in

tests/examinations, cordial relations between teachers and students among others. These activities are concerned with the actual process of imparting knowledge to the learners and are therefore key factors in the education value chain.

#### 4.3.4 Marketing as a Value Chain activity

Marketing is the process by which customers are made aware of products that are available so that they can buy them. Schools advertise themselves in a number of ways. In the study, data on marketing was captured through three questions and the findings are as indicated in table 4.3.4:

**Table 4.3.4 Marketing**

	Not at all		Small Extent		Some Extent		Large Extent		Very Large extent		Mean	Comment
	n	%	n	%	n	%	n	%	n	%		
School vehicle(s) bear school logo or name	1	6	0	0	0	0	1	6	14	88	4.69	Very large extent
All items of uniform bear school logo	1	6	0	0	0	0	2	13	13	81	4.63	Very large extent
School advertised in the print and/or electronic media	5	31	2	13	2	13	1	6	6	38	3.06	Some extent
Average											4.13	

Source: Field data (2010)

From the findings, marketing was carried out by the school, but the mode was more biased towards putting their logos on the school vehicles and on items of uniform rather than advertising through the print and electronic media. Advertising on the print and electronic media was carried out only to a small extent. This is probably because, these being high performing schools, they were already well known though the announcement of KCSE results done every year by the Ministry of Education. They therefore do not see the need to spend money on print or electronic advertisements. The school logos, however, help to enhance the schools' presence at no extra cost.

### 4.3.5 Inbound Logistics as a Value Chain activity

Inbound logistics refer to the activities concerned with receiving, storing and distributing the inputs to the product or service (Porter, 1985). These activities, therefore, provide the 'raw materials' for the value chain. In the study, questions were asked about activities such as, the procedures for admitting students to the school and the purchase of the necessary teaching and learning materials among others. The respondents rated these activities as indicated in table 4.3.5:

**Table 4.3.5 Inbound Logistics**

	Not at all		Small Extent		Some Extent		Large Extent		Very Large extent		Mean	Comment
	n	%	n	%	n	%	n	%	n	%		
Selection of students done on merit	0	0	0	0	2	13	4	25	10	63	4.50	Very large extent
All necessary teaching and learning materials readily made available	0	0	0	0	2	13	4	25	10	63	4.50	Very large extent
Suggestions/proposals from teachers taken into consideration in decision making	0	0	1	6	0	0	8	50	7	44	4.31	Large extent
Laboratories well stocked and adequate for teaching/learning needs	0	0	1	6	2	13	4	25	9	56	4.31	Large extent
Staff members consulted in decision making processes	0	0	1	6	0	0	1	63	5	31	4.19	Large extent
Previous performance of students a key factor in the selection process	1	6	0	0	2	13	6	38	7	44	4.13	Large extent
Staff participate in workshops and seminars on an on-going basis	0	0	0	0	3	19	8	50	5	31	4.13	Large extent
• Library well stocked with relevant and up-to-date materials	3	19	0	0	3	19	7	44	3	19	3.44	Some extent
Previous primary school a key factor in the selection process	7	44	2	13	2	13	1	6	4	25	2.56	Some extent
Average											4.01	

Source: Field data (2010)

Among the activities in inbound logistics, selection of students on merit and ready availability of the necessary teaching and learning materials were rated to a very large extent. Other activities such as teacher involvement in decision making processes and participation in

workshops and seminars on an ongoing basis were rated to a large extent while well-stocked library and consideration of previous primary schools attended by the students were rated to some extent.

From these findings, selection of students on merit and ready availability of teaching and learning materials are key factors to the good performance of schools. Well-stocked library was probably not rated highly because students in these schools are usually supplied with class textbooks which are adequate for their study purposes.

#### **4.4 Value Chain and Competitive Advantage in Secondary Schools in Nairobi**

Porter(1980) states that there are only three basic generic strategies a firm can adopt in order to out perform competitors: cost leadership, product differentiation and specialisation by focus.

##### **4.4.1 Cost leadership**

The aim of this strategy is to achieve overall lower costs than one's competitors without reducing comparable product quality (Burnes, 2004). Questions were asked on whether the schools were able to keep staff turn-over low, cope with the running cost of the school despite inflation and provide all services required regardless of their cost. The responses were as shown in table 4.4.1:

**Table 4.4.1 Cost Leadership**

	Not at all		Small Extent		Some Extent		Large Extent		Very Large extent		Mean	Comment
	n	%	n	%	n	%	n	%	n	%		
Able to keep a fairly stable staff body (low turn-over)	0	0	1	6	3	19	8	50	4	25	3.94	Large extent
Able to cope with costs of running the school regardless of rising inflation	2	13	1	6	5	31	7	44	1	6	3.25	Some extent
Our low cost learning experience is easily imitated by new entrants in our industry	2	13	1	6	6	38	6	38	1	6	3.19	Some extent
Can provide all services regardless of cost of supplies	4	25	2	13	3	19	5	31	2	13	2.94	Some extent
Average											3.33	

Source: Field data (2010)

Majority of the schools (mean 3.94) were able to keep a fairly stable staff body to a large extent. This gives the schools the advantage of keeping their recruitment costs low while at the same time having stability in the teaching and learning process.

Most schools were able to cope with the costs of running schools regardless of rising costs caused by inflation. This shows good management practice by the schools' administration hence the schools were able to provide all services required regardless of cost of supplies. However, their low cost learning experiences could easily be imitated by new entrants in the industry to some extent. The schools, therefore, need to keep discovering new and innovative ways of keeping costs low in order to remain competitive.

#### 4.4.2 Differentiation

The differentiation strategy aims at achieving industry-wide recognition of different and superior products and services compared to those of other suppliers (Burnes, 2004). Schools

generally differentiate themselves through providing high quality teaching and learning as well extra services, therefore obtaining high grades for their students. The level of differentiation can be determined by how difficult it is for competitors to imitate these services and the ability to meet the changing needs of parents and students

**Table 4.4.2 Differentiation**

	Not at all		Small Extent		Some Extent		Large Extent		Very Large extent		Mean	Comment
	n	%	n	%	n	%	n	%	n	%		
The extra services we offer to our students are easily imitated by our competitors	1	6	1	6	1	6	10	63	3	19	3.51	Large extent
Able to keep up with the changing needs of our customers	1	6	1	6	2	13	8	50	4	25	3.81	Large extent
Able to provide affordable services and meet needs of all parents	2	13	0	0	2	13	11	69	1	6	3.56	Large extent
j Average											3.73	

Source: Field data (2010)

The respondent schools were able to keep up with the changing needs of their customers as well as provide affordable services and meet the needs of all parents to a large extent. However, they also faced a challenge because the extra services they offered their students were easily imitated by their competitors. This shows that unless they are innovative in trying to get new ways to satisfy their customers, they could lose their competitive advantage.

### 4.4.3 Focus

This strategy is concerned with selecting only certain markets or products in which to compete. Porter (1980) argues that this enables the organization to dominate its chosen area. The secondary schools studied focused either on education of girls or of boys and there were none that were mixed. Further to that the schools were either day or boarding schools; none were mixed day and boarding schools. The schools were expected to indicate whether (1) they found it challenging to target all parents, (2) competitors were incorporating their needs into their own



and (3) it was expensive to service all their customer needs. The findings on these questions are indicated in table 4.4.3:

**Table 4.4.3 Focus**

	Not at all		Small Extent		Some Extent		Large Extent		Very Large extent		Mean	Comment
	n	%	n	%	n	%	n	%	n	%		
Targeting all parents is a challenge because they have diverse needs	0	0	1	6	4	25	4	25	7	44	4.06	Large extent
Some of our competitors are incorporating the needs of our target market into theirs.	0	0	3	19	5	31	5	31	3	19	3.50	Large extent
It is expensive to service all the needs of our customers	0	0	3	19	5	31	6	38	2	13	3.44	Some extent
Average											3.67	

Source: Field data (2010)

In the study carried out, schools found targeting all parents challenging to a large extent. This could be because they have diverse needs. Competitors were also incorporating the needs of their target market into their own increasing the challenge further. To some extent they found it expensive to service all the needs of their customers. The findings support the conclusion that these high performing schools deliberately employ a focus strategy for competitive advantage over other schools that target all parents and all students. The perception of how difficult it is to meet diverse needs implies a tendency towards focused strategy but, this focus strategy is undermined by the ease of imitation by competitors and the cost of service.

#### **'4.4.4 External Factors**

These refer to the factors outside the organization which influence the organization's operations. They could also be factors to which the organization tries to align itself with and they are many and varied. In the case of schools the factors considered were access to funds for investment,

external infrastructure and availability of land for expansion, government regulations and the nature of the school location.

**Table 4.4.4 External factors**

	Not at all		Small Extent		Some Extent		Large Extent		Very Large extent		Mean	Comment
	n	%	n	%	n	%	n	%	n	%		
We have limited access to funds that we can invest in the school	3	19	3	19	3	19	3	19	4	25	3.13	Some extent
Cannot provide some services due to poor infrastructure	3	19	5	31	4	25	4	25	0	0	2.56	Some extent
We cannot expand our business due to scarcity of land in Nairobi	9	56	2	13	1	6	2	13	2	13	2.13	Small extent
Stringent government regulations are a hindrance to the size of our school	9	56	2	13	2	13	1	6	2	13	2.06	Small extent
Unable to reach our desired target market since our location is not strategic	8	50	5	31	2	13	0	0	1	6	1.81	Not at all
Average											2.34	

Source: Field data (2010)

In this study, external factors seem not to have a significant effect on the running of the schools. The schools therefore seem to have some autonomy in their operations and can therefore focus on and maximize on their key value chain activities. The fact that schools do not currently consider external factors for competitive advantage means that this is an area for improvement. Schools should consider leveraging these factors for greater competitive advantage.

## 4.5 DISCUSSION

The high performing schools seem to have specialized on certain activities in the value chain to give them competitive advantage rather than focus on the entire value chain. By specializing in the specific skills and technologies underlying a single element in the value chain companies can become more proficient at that activity than virtually any company spreading its efforts over

the whole value chain. Most companies target two or three (not one and rarely more than five) activities in the value chain most critical to future success (Quinn and Hilmer, 1994). In a study earned out in UK universities, academic Heads of Departments ranked the improvement of research performance and provision of high quality teaching as their most important goals (Huotari and Wilson, 2001). These could therefore be termed as their key value chain activities.

The secondary schools in Nairobi should therefore aim at maintaining their competitive advantage by focusing on their critical value chain activities and trying to be innovative in them. Companies achieve competitive advantage through acts of innovation. They perceive a new basis for competing or find better means of competing in old ways. Much innovation is mundane and incremental, depending more on an accumulation of small insights and advances than a single major technological breakthrough. Once a company achieves competitive advantage through innovation, it can sustain it only through relentless improvement (Porter, 1990).

## **CHAPTER FIVE: SUMMARY, DISCUSSION AND RECOMMENDATIONS**

### **5.1 SUMMARY**

The findings of this research seem to show that service is not a very key factor in contributing to competitive advantage in secondary schools in Nairobi. Activities such as encouraging teachers to pursue further studies, induction of new staff members or seminars for parents did not seem to play a key role in the schools' good performance. Outbound logistics and operations, on the other hand, seem critical in enabling the schools to perform well. Activities such as guidance and counseling, career guidance and issuance of recommendation letters to students seem to be major motivating factors hence enhancing the schools' performance. In operations, frequent testing, prompt feedback to students on tests done, regular departmental meetings and cordial relationships between teachers and students seem to play a very significant role in contributing to the schools' good performance.

In the inbound logistics, the most significant activities were selection of students on merit and ready availability of teaching and learning materials. These seem to compliment very well with the activities under operations in helping the schools attain competitive advantage. In the area of marketing, these high performing schools did not actively advertise themselves in the print or electronic media and instead put their logos on their school vehicles and items of school uniform.

## **5.2 CONCLUSIONS**

The most critical value chain activities in secondary schools from the findings are inbound logistics, operations and outbound logistics. In the inbound logistics, selection of students on merit and ready availability of teaching and learning materials are critical to preparing for operations. Once the right kinds of students are selected and the learning resources made available, the activities under operations can then be effectively undertaken. Frequent testing helps to keep students revising what they have learned and prompt feedback encourages them to pull up in their areas of weakness while at the same time gives them motivation to keep studying. Cordial relations between teachers and students ensure that there is no barrier to learning which would develop if students were not able to reach their teachers. Regular departmental meetings facilitate liaison among teachers helping them to share ideas and problems they may be facing. This in turn enables them to improve and be more effective in their teaching.

## **5.3 RECOMMENDATIONS**

In order to stay competitive, secondary schools should take the following steps:

Provide quality: Secondary schools should set high quality standards. This implies discipline among the staff and students. There should be thorough and effective evaluation of students with prompt feedback on their performance. Teachers should liaise frequently with each other at departmental level in order to enhance their knowledge and skills. They should also make an effort to keep abreast with the changes in their subject areas as well as the Kenya National Examinations Council expectations. Work plans should be prepared in good time and syllabus coverage should be given priority. Schools should also make every effort to ensure that all the

necessary teaching and learning materials are available when needed. High quality standards set a school apart from its competitors.

Guidance and counseling: This should be enhanced to help the students to cope with then-personal challenges as they study so that they can realize their full potential. Guidance given during their period of study in school could also be helpful later in life hence enabling students to cope with the challenges of life after school. Students who benefit from a close follow by their teachers while in school are more likely to be better prepared for the challenges of life than those who do not.

Invest in information technology: in the recent past, a lot of innovation has taken place in the information technology sector. IT if properly used can be very useful in the teaching and learning process. Schools should therefore invest in IT and make an effort to find out the various ways they can use it to enhance learning rather than keep to the traditional methods previously used.

## REFERENCES

- Amit R., Zott C. (2001), Value creation in e-business, *Strategic Management Journal*, 22 (6-7).
- Anand B.N., Khanna T. (2000), Do firms learn to create value? The case of Alliances, *Strategic Management Journal*, 21 (3).
- Barney, J. (1991), Firm resources and sustained competitive advantage, *Journal of Management*, Vol. 17 No.1, pp.99-120.
- Campbell, A., Goold, M. (1995), Corporate strategy: the quest for parenting advantage, *Harvard Business Review*, 73 (2), 120-33.
- Christensen, C.M. (2001), The past and future of competitive advantage, *MIT Sloan Management Review*, 42 (2), 105-9.
- Day, C.S. (1984), Strategic Market Planning: The Pursuit of Competitive Advantages. West, St Paul, MN.
- Day, C.S. (1994), Managerial representations of competitive advantage, *Journal of Marketing*, 58 (2), 31-45.
- Ellig J. (2001), Internal markets and the Theory of the Firm, *Management and Decision Economics*, 22 (4/5), Strategy and the Market Process (Jun-Aug, 2001).
- Ghemawat, P. (1986), Sustainable advantage, *Harvard Business Review*, 64 (5), 53-9.
- Government of Kenya (2007), KCSE 2006 Analysis Booklet, Kenya Secondary Schools Heads' Association (Nairobi).
- Hahn C.K., Duplaga E.A., Hartley J.L. (2000), Supply Chain Synchronization: Lessons from Hyundai Motor Company, *Interfaces*, 30 (4), Supply Chain Management (Jul-Aug, 2000).

- Hill C.W., Jones G. R. (2001), Strategic Management Theory: An Integrated Approach. Fifth edition, Houghton Mifflin Company.
- Hitt, M.A., Ireland, R.D. (1985), Corporate distinctive competence, strategy, industry and performance, *Strategic Management Journal*, 6 (13),273-93.
- Holm D.B., Eriksson K., Johanson J. (1999), Creating Value through Mutual Commitment to Business Network Relationships, *Strategic Management Journal*, 20, (5).
- Huotari M.L., Wilson T.D. (2001), Determining organizational information needs: the Critical Success Factors approach, *Information Research*, 6 (3), April.
- Johnson G., Scholes K. (2002) Exploring Corporate Strategy. Prentice Hall International, Hertfordshire.
- Kaplinsky R. (2000), Globalization and Unequalization: What can be learned from Value Chain Analysis? *Journal of Development Studies*.
- Markides, C.C. (1997), To diversify or not to diversify, *Harvard Business Review*, 75 (6), 93-100.
- Odero S.B. (2006) The Value Chain and Competitive Advantage in the Corporate Banking Industry in Kenya: The Case of Citibank Kenya. University of Nairobi Press: Nairobi.
- Oluoch B.A. (2001) In Search of Excellence: A Look at the TOP Ranking Primary Schools in Nairobi. University of Nairobi Press: Nairobi.
- Prahalad C.K, Hamel G. (1990), The core competency of the corporation, *Harvard Business Review*, 68.
- Pearce J.A., Robinson R.B. (Jr) (2004), Strategic Management: Strategy Formulation and Implementation. 3<sup>rd</sup> Edition, AITBS Publishers & Distributors.



Porter, M.E. (1979), How competitive forces shape strategy, *Harvard Business Review*, 57 (2), 137-145.

Porter, M.E. (1980), Competitive Strategy. Free Press, New York, NY.

Porter M.E. (1985), Competitive Advantage: Creating and Sustaining Superior Performance. The Free Press.

Porter, M.E. (1987), From competitive advantage to corporate strategy, *Harvard Business Review*, 65 (3), 43-59.

Porter, M.E. (1990), The Competitive Advantage of Nations, *Harvard Business Review*, March-April.

Porter, M.E. (1996), What is strategy? *Harvard Business Review*, 74 (6), 61-78.

Prahalad, C.K., Hamel, G. (1990), The core competence of the corporation, *Harvard Business Review*, 68 (3), 79-91.

Quinn, J.B., Hilmer F.G (1994), Strategic Outsourcing, *Sloan Management Review/Summer*.

Reed, R., DeFillippi, R. (1990), Casual ambiguity, barriers to imitation, and sustainable competitive advantage, *Academy of Management Review*, 15 (1), 88-102.

Stabell C.B., Fjeldstad O. D. (1998), Configuring Value for Competitive Advantage, *Strategic Management Journal*, 19 (5) May.

Thompson A.A., Strickland A.J., Gamble J.E. (2007), Crafting and Executing Strategy: Texts and Readings. McGraw-Hill Companies, Inc.

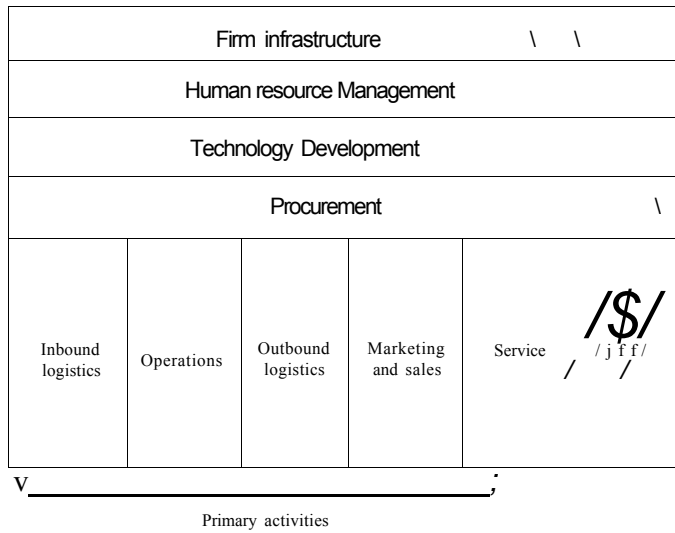
Zook, C. (2001a), Desperately seeking growth: the virtues of attending to your core, *Harvard Management Update*, 6 (6).

Zook, C. (2001b), Step by step, *World Link*, 48-52.

Zook, C., Allen, J. (2001), Profit from the Core: Growth Strategy in an Era of Turbulence.  
Harvard Business School Publishing, Boston, MA.

# APPENDICES

## APPENDIX I: VALUE CHAIN MODEL



Source: Michael E. Porter. Competitive Advantage: Creating and Sustaining Superior Performance.  
 Copyright 1985, 1999, N.Y. Free Press.

## **APPENDIX II: INTRODUCTORY LETTER**

Monica M. Wairua  
University of Nairobi  
School of Business  
January, 2010.

Dear Respondent,

### **RE: COLLECTION OF SURVEY DATA**

I am a postgraduate student at the University of Nairobi, at the School of Business. In order to fulfill the degree requirement, I am undertaking a management research project on 'The Value Chain and its Impact on Competitive Advantage in Secondary Schools in Nairobi Province'. Your school has been selected to form part of this study. This is to kindly request you to assist me to collect the data by filling out the accompanying questionnaire, which I will then collect from you.

The information you provide will be used exclusively for academic purposes. My supervisor and I assure you that the information collected will be treated with strict confidence. Your name or that of your organization will at no time appear in my report. A copy of the final paper will be availed to you on request.

Your cooperation will be highly appreciated.

Thank you in advance.

Yours faithfully,

MONICA M. WAIRUA  
MBA STUDENT  
UNIVERSITY OF NAIROBI

## APPENDIX III: QUESTIONNAIRE

Questionnaire number \_\_\_\_\_ Date \_\_\_\_\_

### SECTION A: GENERAL INFORMATION

1. Name of the school

2. Category of the school      National      ( )  
                                         Provincial      ( )  
                                         District      ( )  
                                         Private      ( )

Number of streams

Number of students

3. Type of school:

Girls only ( )

Day school ( )

Boys only ( )

Boarding school ( )

Girls & Boys ( )

Day and Boarding school ( )

4. What was your KCSE average mean grade and university intake in the following years?

Year	Mean score	Mean grade	University intake (%)
2007			
2006			
2005			
2004			
2003			

## SECTION B: VALUE CHAIN ACTIVITIES

1. To what extent does your school carry out the following?

[5-Very Large Extent; 4-Large Extent; 3-Some Extent; 2-Small Extent; 1-Not at All]

Activities	5	4	3	2	1
Selection of students done in a transparent manner					
Previous performance of students a key factor in the selection process					
Previous primary school a key factor in the selection process					
Open communication and cordial relations between teachers and students					
Parent-teacher discussions on students academic performance					
New students undergo an induction process					
Students with special needs or problems identified and assisted					
Staff members consulted in decision making processes					
Remedial classes given to low achieving students					
Students engage in co-curricular activities					
Library well stocked with relevant and up-to-date materials					
Staff meetings held to discuss students' performance					
Schemes of Work and examinations prepared at departmental level					
Regular departmental meetings held					
Students marks recorded centrally and readily available					
School has an active guidance and counseling department					
Appraisal of teachers carried out regularly					
Students evaluated through frequent testing					
Prompt feedback to students on performance in tests/examinations					
Students participate in inter-schools' symposiums and other academic competitions					
Seminars held to enlighten parents on their role in their children's development					
Students assisted to make informed decisions about career choices					
Suggestions/proposals from teachers taken into consideration in decision making					
School advertised in the print and/or electronic media					
I Staff encouraged to pursue further studies					
School vehicle(s) bear school logo or name					
Students issued with recommendation letters after completion of school					
Staff DarticiDate in workshops and seminars on an on-going basis					
All items of uniform bear logo of the school					

## SECTION C: APPLICATION OF COMPETITIVE STRATEGIES

To what extent do the following circumstances apply to your school?

[5-Very Large Extent; 4-Large Extent; 3-Some Extent; 2-Small Extent; 1-Not at All]

	5	4	3	2	1
Can provide all services regardless of cost of supplies					
Able to keep a fairly stable staff body (low turn-over)					
Able to cope with costs of running the school regardless of rising inflation					
Our low cost learning experience is easily imitated by new entrants in our industry					
Able to provide affordable services and meet needs of unique parents					
Able to keep up with the changing needs of our customers					
The extra services we offer to our students are easily imitated by our competitors					
Targeting all parents is a challenge because they have diverse needs					
It is expensive to service all the needs of our customers					
Some of our competitors are incorporating the needs of our target market into theirs.					
Cannot provide some services due to poor infrastructure-roads. electricity					
Unable to reach our desired target market since our location is not strategic					
We cannot expand our business due to scarcity of land in Nairobi					
We have limited access to funds that we can invest in the school					
Stringent government regulations are a hindrance to the size of our school					

6. Please indicate the challenges you have experienced/currently encounter as you operate in the education industry.

THANK YOU

APPENDIX IV: LIST OF SCHOOLS  
(Ministry of Education)

1. Kianda School
2. Nairobi School
3. Lenana School
4. Strathmore School
5. The Kenya High School
6. Karengata Academy
7. Buruburu Girls' Secondary School
8. Light Academy Girls' School
9. Light Academy Boys' School
10. Moi Forces Academy
11. Moi Girls' School, Nairobi
12. Pangani Girls' High School
13. Precious Blood Girls' Secondary School, Riruta
14. Starehe Boys' Centre
15. State House Girls' High School
16. St. George's Girls' Secondary School
17. Sunshine Secondary School
18. Upper Hill School