THE EFFECT OF VALUE CHAIN MANAGEMENT STRATEGIES ON COMPETITIVE ADVANTAGE: THE CASE OF BAMBURI CEMENT

BY

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Department of Commerce

MAY, 2017
Declaration

I Sheila Akwany Ounga, hereby declare that this research proposal is my original work and has not been presented for the award of a degree in any other University.

Signed........................................ Date....................

Supervisors:

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Signed........................................ Date.................

Dr. Headmound Okari
Signed........................................ Date...............
DEDICATION

I dedicate this work to my family and friends, for their support in helping me achieve my academic goals.
ABSTRACT

This research focused on the effect of the three value chain management strategies of cost reduction, differentiation and strategic alliance on the competitive advantage of Bamburi Cement Limited. The background of the study gave an overview of the structure, characteristics, and dwindling performance of the cement industry in East Africa and Kenya, highlighting the key players alongside their individual market share. The study was based on three theories. The value chain theory elaborated on the creation of value through linkages between activities that can be the basis of competitive strategies while, the resource based view and strategic factor markets theory elaborated on the significance of the acquisition and use of key resources by a firm seeking an advantage over its competitors. A descriptive survey research design was applied to gather data. The research targeted a population size of 495 employees of Bamburi cement based at its head office in Nairobi. Stratified random sampling method was used to select an appropriate sample size. A structured questionnaire was employed to collect primary data from respondents. These questionnaires were distributed to 222 employees and completed by 166, for a 75% response rate. Correlation was used to analyze the data collected and descriptive statistics used in presenting it by use of statistical tables and bar graphs. The respondents’ profile portrayed a stable workforce with good gender balance, which is well educated and has worked in the company for over five years, possessing good knowledge of its operations. The findings of the research revealed that, the cost reduction strategy had a significant effect on competitive advantage. This was mainly attributed to use of low cost energy, automation and adoption of current technology in production. Differentiation strategy also proved to have a significant effect on competitive advantage with high product quality and adherence to international standards having the greatest contribution to the success of the strategy. The third strategy, strategic alliance, was discovered to have a weak effect on competitive advantage, with collaboration with a knowledge partner highly ranked, but partnerships with distributors and retailers showing minimal effect on competitive advantage.

Key words: competitive advantage, value chain, strategic factor markets, resource based view.
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<th>Description</th>
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<tr>
<td>ARM</td>
<td>Athi River Mining</td>
</tr>
<tr>
<td>Mt</td>
<td>Metric Tonnes</td>
</tr>
<tr>
<td>JIT</td>
<td>Just in Time</td>
</tr>
<tr>
<td>US</td>
<td>United States</td>
</tr>
<tr>
<td>RBV</td>
<td>Resource Based View</td>
</tr>
<tr>
<td>VRIN</td>
<td>Valuable, Rare, Inimitable and Non-substitutable</td>
</tr>
<tr>
<td>VRIO</td>
<td>Valuable, Rare, Inimitable and Organization</td>
</tr>
<tr>
<td>KNBS</td>
<td>Kenya National Bureau of Standards</td>
</tr>
<tr>
<td>KES</td>
<td>Kenya Shilling</td>
</tr>
<tr>
<td>US</td>
<td>United States</td>
</tr>
<tr>
<td>SPSS</td>
<td>Statistical Package for Social Sciences</td>
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CHAPTER ONE

INTRODUCTION

1.0 Background of the study

The concept of the Value chain was developed by Michael Porter in 1985 as one of the tools that can be used for defining a firm’s core competencies and the activities it can pursue to obtain a competitive advantage. He defines the value chain as a collection of activities that are performed to design, produce, and market, deliver and support its product. A company’s value chain is hence a system of interdependent activities, which are connected by linkages. Linkages exist when the way in which one activity is performed affects the cost or effectiveness of other activities. Effective linkages of various elements of the value chain allows for efficiency and speed in production.

Analysis of the value chain can be used to formulate competitive strategies, understand the sources of competitive advantage, and identify the linkages and interrelationships between activities that create value (Prescott, 2001). Value in a product is determined by the unique combination of attributes in a production process from the transformation of the raw materials to the delivery of the end product to the customer. According to the Institute of Management Accountants (2014) the analysis of the value chain has becomes essential for assessing competitive advantage. Though the method has been criticized as having little application outside the manufacturing industry, it is still credited as a flexible strategy tool for looking at a business, its competitors and the respective places in the industry’s value system (Simister, 2011).

Hofer and Schendel (1978) describe competitive advantage as the unique position an organization develops vis-a-vis its competitors through its patterns of resource deployment; it is a superiority gained by an organization when it can provide the same value for a product as its competitor but at a lower price, or at a higher price by providing greater value through differentiation. It results from matching core competencies to market opportunities. Theories such as the Resource Based View argue that a firm can gain a competitive advantage through exploitation of tangible and intangible resources identified from within the firm itself (Wernerfelt, 1984). Strategies derived from an analysis of the value chain make use of the firm’s
internal resources and identify others in the external environment that need to be acquired by the firm to maintain a competitive position.

Value Chain Management Strategies such as cost reduction, differentiation and strategic alliances have enabled various companies to gain competitive advantage in achieving above-average customer satisfaction, large market share and high profit margins (Urbig, 2003; Schiebel, 2005; Akenbor and Okoye, 2011). Although value creation cuts across various industries, it is most synonymous with manufacturers as their processes are better defined and driven by tangible product qualities. By removing non value adding activities and employing proper Value Chain Management Strategies, a firm can maximize its profitability and gain a competitive advantage.

Cement consumption and production in Kenya have both been on the rise in recent years, although the latter continues to outpace the former, with the Kenya National Bureau of Statistics (KNBS) reporting in its “2015 Economic Survey” that total cement production rose by 16.3% in 2014 to reach 5.88Mt, compared to a 7.8% increase recorded in 2013. Although consumption stood at 5.2Mt in 2014, it has been increasing faster than production, with the KNBS reporting a 21.8% rise in consumption in 2014, driven by robust growth in the construction industry. Kenya had a cement production utilization rate of 90% in 2015 according KNBS data. It produced 6.35Mt in that year and used 5.71Mt for consumption and stocks. Its utilization rate has been rising steadily since 2012. It was 93% for the first six months of 2016.

The decline of the industry however, started in the year 2011 when cement import duty under the East African Community Common External Tariff was lowered by 10% to 25% despite stiff opposition from industry players. Cement exports averaged 21.1% of total cement production over the period 2006 – 2011. Key export markets included Uganda, Tanzania, the Democratic Republic of Congo and other East and Central African countries. Imported cement accounted for a marginal 2% of total cement consumed during the period indicating the country’s overall reliance on locally produced cement (Dyer and Blair, 2012). In February 2015 Standard Investment Bank forecasted that Kenya will remain the dominant country for cement activity in the East African Community through to 2017, accounting for 42% of total consumption and 51% of total production. A number of cement manufacturers have moved into the Kenyan market in recent years, attracted by a spate of planned infrastructure builds including the Standard Gauge
Railway project, which will require up to 650,000 tonnes of cement during its four-year construction phase, and the Lamu Port-South Sudan-Ethiopia Transport Corridor Project, which also involves the construction of new highways, tourism facilities, and an oil refinery and pipeline connecting the Lamu Port to South Sudan, Ethiopia and Uganda at an estimated cost of Ksh. 25 trillion (Oxford Business Group, 2015).

Table 1: The top cement manufacturers in Kenya

<table>
<thead>
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<th>Cement Company</th>
<th>Mines</th>
<th>Brands</th>
<th>Market share</th>
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<tr>
<td>Bamburi Cement Limited</td>
<td>Athi River, Mombasa</td>
<td>Nguvu</td>
<td>40%</td>
</tr>
<tr>
<td>East African Portland Cement Company Limited</td>
<td>Athi River</td>
<td>Blue Triangle</td>
<td>24%</td>
</tr>
<tr>
<td>Athi River Mining Limited</td>
<td>Athi River</td>
<td>Rhino</td>
<td>16%</td>
</tr>
<tr>
<td>National Cement Company Limited</td>
<td>Lukenya</td>
<td>Simba</td>
<td>7%</td>
</tr>
<tr>
<td>Mombasa Cement Limited</td>
<td>Athi River</td>
<td>Nyumba</td>
<td>13%</td>
</tr>
<tr>
<td>Savannah Cement Company</td>
<td>Athi River</td>
<td>Savannah</td>
<td>12%</td>
</tr>
</tbody>
</table>

Source: Dyer and Blair, 2015

This research sought to examine various Value chain Management Strategies applied by manufacturing companies and further attempt to analyze the effects of these strategies on competitive advantage, taking a case study of Bamburi Cement Limited. Table 1 shows the top six cement manufacturers in Kenya, alongside their market share at the end of the year 2016. Founded in 1951, Bamburi Cement was the second cement manufacturing company established in Kenya, after East Africa Portland Cement Company Limited, started in 1933. The company was established to produce a steady supply of cement to the growing local market. Since then, Bamburi has overtaken the East Africa Portland cement as well as all the other new entrants in the industry, retaining the position of market leader for more than six decades. Bamburi is a now a fully owned subsidiary of Lafarge-Holcim and is the largest cement manufacturing company in the East African region. Its Mombasa plant is the second largest cement plant in sub-Saharan Africa. The company is also one of the largest manufacturing export earners in Kenya, exporting about 28 per cent of its production. Its subsidiary company, Bamburi
Special products is specialized in production of concrete paving blocks to builders, both large and small scale while Bamburi Eco Systems focuses on rehabilitating used quarries. With the ability to produce 2.1 million tons of cement every year and supplying over 40% of the country’s cement, Bamburi has developed elaborate strategies targeted at creating the most value in its products, surpassing competitors and delivering on changing customer demands (Lafarge, 2016)

1.1 Problem Statement

Even with the rapid growth in demand for cement in Kenya over the last three years, the cement production industry is still coupled with a myriad of challenges which may potentially hinder further growth or continue to put pressure on the already narrow profit margins received by the few existing firms. Reduced import duty has attracted purchase of cheap cement from low cost producers such as Egypt, India, China and Pakistan. At the end of the year 2015, cement prices in Kenya had dipped to a 13 year low, retailing at an average of Ksh 575 for a 50 Kg bag of cement as compared to an average of Ksh 650 – Ksh 750 in previous years. The continuously decreasing margins are seen as a threat to the survival of local companies. This also happens on the backdrop of increased importation of cement from china that rose to $19.8m at the beginning of the year 2016 (Kagai, 2015).

Local producer ARM Cement reported both falling turnover and a loss for the first half of 2016. It blamed this on increased competition in Tanzania but also noted a ‘competitive landscape’ in Kenya and lamented the effects of currency devaluation on its finances as a whole. The East African Portland Cement had a tougher time of it for its half-year that ended on 31 December 2015, issuing a profit warning of a loss and expected reduced profits despite a rise of 12% in sales revenue. By contrast, Bamburi Cement, LafargeHolcim’s subsidiary, reported both increases in revenue and operating profit in 2015. Although it too noted problems with interest rates and currency depreciation in the country during this period.

In this light, cement producing companies continue to fight for the shrinking retail market and government contracts spurred by demand for infrastructure. It has thus become crucial for cement manufacturers to re-evaluate their value chains and develop effective strategies that will ensure they have a competitive advantage over other players in the industry. For these reasons, this research sought to analyze the Value Chain Management strategies applied by Bamburi.
Cement Limited over the years since it was incorporated, and that have enabled it to maintain its competitive position in the industry.

1.2 Research objectives

The main aim of the research was to analyze the effect of Bamburi Cement’s Value Chain Management Strategies on its competitive advantage. It was guided by the following specific objectives:

I. To analyze the effect of the value chain cost reduction strategy on Bamburi Cement’s competitive advantage.
II. To analyze the effect of the value chain differentiation strategy on Bamburi Cement’s competitive advantage.
III. To analyze the effect of the Strategic alliance strategy on Bamburi Cement’s competitive advantage.

1.3 Research Questions

I. What is the effect of the value chain cost reduction strategy on Bamburi Cement’s competitive advantage?
II. What is the effect of the value chain differentiation strategy on Bamburi Cement’s competitive advantage?
III. What is the effect of Strategic alliance strategy on Bamburi Cement’s competitive advantage?

1.4 Scope and limitation of the study

The study analyzed the effect of value chain management strategies of cost reduction, differentiation and Strategic alliance on Bamburi Cement Company’s competitive advantage. The focus was on the company’s Head office in Upper hill, Nairobi which has 6 main departments, namely Finance, Commercial, Human Resources, Corporate Communications and sustainable Development, Bamburi Special products and Supply Chain. The head office has 495 permanent employees overseeing the operations of the company and its subsidiaries in Kenya. Data collected was based on the company’s performance over the last 10 years in relation to other manufacturers in the same industry over the same period. Due to the nature of competition,
the company was only willing to provide structured and pre-approved information through secondary online resources and directly through questionnaires. The study was thus limited to use of questionnaires to obtain primary data, compelling the researcher to abandon other data collection methods such as direct interviews that may have provided more information on the subject matter and further enriched the findings of the research.

1.5 Significance of Study

The output of the research will be instrumental in assisting managers better understand the importance of Value Chain Management strategies and how they can help to attain a competitive advantage. It will also assist finance managers understand why it is important to adopt an Activity Based Costing system that assigns costs to value addition activities as opposed to cost centers. This form of accounting eventually helps to identify redundant activities and inefficiencies in production that can be corrected or eliminated to cut down on unnecessary expenditure, subsequently reducing production costs.

Policy makers can use the findings of this research as a point of reference in the formulation of policies that will aid in strengthening and developing the cement manufacturing industry in Kenya. The total contribution of the industry to Kenya’s GDP is not clearly outlined by KNBS but it does state the magnitude of the investment made by the government in financing various construction projects, tuning up to Ksh143.8 billion in the year 2014/2015, a clear indication of the need to have policies that will help sustain a strong and robust construction industry. Information derived from the study can also help shed more light on the current state of competition in Kenya, key to other investors who may want to join the industry, such include Nigeria’s Dangote Cement which is planning to build a 3Mt/yr plant in Kitui and Cemtech Kenya, a subsidiary of India’s Sanghi Group, planning to build a 1.2Mt/yr plant in Pokot.

The findings of the research will also contribute to the empirical body of work already provided by other scholars, on the impact of value chain management strategies on competitive advantage. As such, it will act as a reference document for future research by students of management, offering a more in depth and practical understanding of the value chain management strategies from a local context.
CHAPTER TWO
LITERATURE REVIEW

2.0 Introduction

In chapter two, the literature review comprises of three subsections. The theoretical review discusses various theories on which the study is anchored followed by subsection two, the empirical literature review and subsection three, the conceptual framework.

2.1 Theoretical Review

Competitive advantage can be gained through acquisition and deployment of unique resources owned by a firm. The value chain theory elaborates on the creation of value through linkages between activities that can be the basis of competitive strategies. The resource based view and strategic factor markets theory elaborate on the acquisition and use of these resources by a firm seeking to gain an advantage over its competitors.

2.1.1 Porter’s Value Chain Theory

Michael Porter (1985) states that every firm is a collection of activities that are performed to design, produce, market, deliver, and support its product. He categorizes the generic value-adding activities of an organization into primary and support activities. Strategic advantage is gained through analyzing the value chain and identifying activities which give that company a competitive advantage that can in turn be exploited better than others in the same industry.

Figure 2.1 Competitive Advantage, (Michael Porter, 1985)
Primary activities of the value chain relate directly to the physical creation, sale, maintenance and support of a product or service. They consist of the following: Inbound logistics - which consists of all the processes related to receiving, storing, and distributing inputs internally; Operations –the transformation activities that change inputs into outputs that are sold to customers; Outbound logistics –activities that ensure the product or service is delivered to the customer; Marketing and sales –processes used to persuade clients to purchase from a particular company instead of its competitors and service –activities related to maintaining the value of the product or service to the customers, once it's been purchased.

Support activities in the value chain enable the primary activities to run smoothly. They include; Procurement which is what the organization does to get the resources it needs to operate at the best prices; Human resource management which is how well a company recruits, hires, trains, motivates, rewards, and retains its workers; Technological development which refers to activities related to managing and processing information, protecting a company's knowledge base, minimizing information technology costs, staying current with technological advances, and maintaining technical excellence are sources of value creation; Infrastructure refers to a company's support systems such as accounting, legal, administrative, and general management, that allow it to maintain daily operations.

According to Netmba (2016) the Value chain is a useful analysis tool for defining a firm’s core competencies and the activities it can pursue to obtain a competitive cost or differentiation advantage. Winning business strategies are grounded in sustainable competitive advantage. A company has competitive advantage whenever it has an edge over rivals in securing customers and defending against competitive forces. There are many sources of competitive advantage: making the highest-quality product, providing superior customer service, achieving lower costs than rivals, having a more convenient geographic location, designing a product that performs better than competing brands, making a more reliable and longer-lasting product, and providing buyers more value for the money. To succeed in building a competitive advantage, a firm must try to provide what buyers will perceive as superior value -either a good product at a low price or a better product that is worth paying more for (Porter, 1985).
According to Porter (1985), a cost advantage can be achieved through reducing the cost of activities related to the value chain or by innovatively configuring the value chain by making structural changes to improve current processes such as developing a new production process. He identified 10 major cost drivers related to value chain activities, these include: economies of scale, learning, capacity utilization, linkages among activities, interrelationships among business units, degree of vertical integration, timing of market entry, firm’s policy of cost or differentiation, geographic location and institutional factors such as regulation, unions and taxes. Though these cost drivers have since expanded, they are still relevant today. A firm achieves a cost advantage by managing these costs and keeping them lower than all the other players in the industry.

A differentiation strategy calls for the development of a product or service that offers unique attributes that are valued by customers and that customers perceive to be better than or different from the products of the competition (Porter, 1985). Uniqueness can be attained by altering individual value chain activities to increase uniqueness in the final product or reconfiguring the value chain. He identified the following divers of uniqueness as including: policies and decisions, linkages among activities, timing, location, interrelationships, learning, integration, scale of operation as well as institutional factors. Some of the stated factors also act as cost drivers and hence there has to be a tradeoff between cost and differentiation.

In summary, the theory enables us to understand the basis on which the Value Chain Management strategies are formulated by elaborating the intricate primary and secondary activities that make up a company’s value system. This process identifies key value adding activities that are a great resource to the company and from which competitive strategies can be developed. Non-value adding activities are also identified and eliminated or modified to offer greater value.
2.1.2 Resource Based View

The Resource-Based View is an approach for attaining competitive advantage that emerged in the 1980s and 1990s after the original concept developed by Wernerfelt (1984). It argues that a firm can gain a competitive advantage through exploitation of tangible and intangible resources identified from within the firm itself (Mwailu and Mercer, 1983). RBV is based on the tenet that, for a sustained advantage, the tangible and intangible resources of the firm have to be heterogeneous and immobile (Peteraf, 1993) to make it harder for competitors to amass the same advantage easily. The resources also have to bear 4 unique characteristics, they must be valuable, rare, inimitable and Non-substitutable (VRIN) (Peteraf, 1993; Barney, 1986; Lippman and Rumelt, 1982). The theory basically examines all the firm’s resources to find the sources of its value to customers.

Figure 2.2 Resource Based View (Ovidijus Jurevicius, 2013)
The RBV theory puts strong emphasis on the identification and deployment of internal tangible and intangible resources to exploit opportunities in the external environment rather than sourcing additional external resources. Tangible Resources refer to things that are physically available to the firm, such as land, buildings, machinery, equipment and capital that give it a unique advantage over other firms in the same industry. Intangible resources refer to resources that cannot be physically touched and are usually developed over time. Examples of such include intellectual property, copyrights and patents, brand reputation and trademarks. They are less prone to limitability hence offer the firm a greater competitive advantage.

One of the key assumptions of RBV is that the resources are heterogonous and immobile. Being heterogeneous simply means that the resource is not widely available to the other industry players, which will thus enable them to deploy different strategies within the same external environmental factors at play. Immobility refers to the aspect of not being able to physically move a resource from one firm to the other. It mostly applies to resources such as brand name and intellectual property. Having heterogeneous and immobile resources is critical in achieving competitive advantage, but it is not enough if the firm wants to sustain it. Barney (1991) has identified VRIN framework that examines if resources are valuable, rare, costly to imitate and non-substitutable. The resources and capabilities that are in line with all these factors can achieve a sustained competitive advantage. The framework was later improved from VRIN to VRIO, incorporating the aspect of whether the company is organized enough to exploit the resources available to it (Ovidijus Jurevicius, 2013).

A valuable factor enables a firm to employ a value-creating strategy, by either outperforming its competitors or reduce its own weaknesses. Relevant in this perspective is that the transaction costs associated with the investment in the resource cannot be higher than the discounted future rents that flow out of the value-creating strategy (Mahoney and Pandian, 1992). To be of value, a resource must be rare by definition. In a perfectly competitive strategic factor market for a resource, the price of the resource will be a reflection of the expected discounted future above-average returns (Barney, 1986a; Dierickx and Cool, 1989).
If a valuable resource is controlled by only one firm it could be a source of a competitive advantage. This advantage could be sustainable if competitors are not able to duplicate this strategic asset perfectly (Peteraf, 1993; Barney, 1986b). The term isolating mechanism was introduced by Rumelt (1984,) to explain why firms might not be able to imitate a resource to the degree that they are able to compete with the firm having the valuable resource (Peteraf, 1993; Mahoney and Pandian, 1992). An important underlying factor of inimitability is causal ambiguity, which occurs if the source from which a firm’s competitive advantage stems is unknown (Peteraf, 1993; Lippman and Rumelt, 1982). If the resource in question is knowledge-based or socially complex, causal ambiguity is more likely to occur as these types of resources are more likely to be particular to the firm in which it resides (Peteraf, 1993; Mahoney and Pandian, 1992).

Even if a resource is rare, potentially value-creating and imperfectly imitable, an equally important aspect is lack of substitutability (Dierickx and Cool, 1989) If competitors are able to counter the firm’s value-creating strategy with a substitute, prices are driven down to the point that the price equals the discounted future rents (Barney, 1986), resulting in zero economic profits.

In summary, the Resource Based View approach stresses the importance of using internal resources directly accessible to the firm in developing competitive strategies, rather than sourcing them externally. Firms that have been able to build their value chain management capabilities internally, away from external competitive pressures can use these capabilities to gain competitive advantages, assuming, of course, that these capabilities are heterogeneous and generate more accurate expectations about the future value of the resources and capabilities a firm acquires compared to other firms (Barney, 2012). The Value chain offers an excellent basis upon which internally grown strategies can be developed, that are valuable, rare, inimitable and non-substitutable.
2.1.3 Strategic factor market theory

A factor market facilitates the purchase and sale of factors of production, which are inputs like labor, capital, land and raw materials that are used by a firm to make a finished product. These markets are where firms buy and sell the resources necessary to implement their strategies (Barney, 1986). Strategic factor market theory holds that firms cannot appropriate gains from the deployment of valuable resources unless they have superior expectations about their future value or are beneficiaries of luck (Barney, 1986; Barney, 2001). Barney (1986) introduced the concept of a strategic factor market to elaborate on how firms acquire resources, as outlined in the resource based view theory. The theory states that the resources necessary to carry out a particular strategy; resources that lead to a strong competitive position must usually be acquired. Firms can attempt to develop better expectations about the future value of strategic resources by analyzing their competitive environments or by analyzing skills and capabilities they already control. Environmental analysis cannot be expected to improve the expectations of some firms better than others, and thus cannot be a source of more accurate expectations about the future value of a strategic resource. Analyzing a firm's skills and capabilities can thus be a source of more accurate expectations.

Barney frames his article largely in terms of Porter's (1980) five forces model. He argues that good positions and the resources necessary to carry out a good business strategy are not always readily available to organizations. Firms can competitively acquire resources for less than the surplus they create in combination with other firm resources and capabilities when they exhibit superior complementarily to the target resources relative to competing firms. On the other hand, instead of searching for resources whose value is unknown to all players, managers can search for resources whose value in combination with their firms’ resources and capabilities can be matched by few players in the business environment (Peteraf and Barney, 2003).

Value appropriation is determined by scarcity, bargaining ability and complementarities. A resource seller will however not accept payment that is less than a resources’ marginal productivity when used in combination with a firm’s stock of other resources and capabilities. The only systematic way to appropriate gains to trade in strategic factor markets would be by outsmarting the resource seller. Strategic factor markets are developed when a firm requires the acquisition of resources in order to implement its strategy (Barney, 1986). The economic
performance of the firms depends not only on the returns from their strategies but also on the cost of buying the resources from these markets to implement those strategies. The costs of those resources are determined by the characteristics of the factor markets. It is leading us that valuable and rare resources are not the source of competitive advantage or above normal return if the cost of acquiring or developing these resources equals the value they create when used to conceive of and implement a strategy.

There is an implied possibility that the competitive advantage may come from the imperfections in strategic factor markets. Different firms in these markets will have different expectations about the future value of a strategy, which creates this imperfection (Barney, 1986), and the owners of the firm also have different expectations about the future return of their resources (Barney, 2001). Different expectations toward resources produce the possibility of a competitive advantage for a firm. This kind of competitive advantage, named ‘economic rents’ by Barney, reflect the creative and entrepreneurial ability of firms to discover how to generate value with their resources in ways that other firms and outside owners cannot anticipate (Barney, 1986, 2001). Firms which intend to obtain a competitive advantage must be consistently better informed concerning the future value of these resources than other firms.

In conclusion, the Strategic Factor Markets theory is relevant to the study because, competitive advantage is a product of clever utilization of heterogeneous resources created by market imperfections. To attract and gain the greatest benefit from these resources, the firm has to exhibit superior complementarity with the targeted resources over all its other competitors. In this case, internally developed value chain strategies can be a great way to create a unique value proposition and rightly position the firm to gain the greatest benefit from complementarity with external factors of production.
2.2 Empirical Literature Review

Understanding how businesses use competitive strategies to succeed has been at the core of strategic management research for decades. Hofer and Schendel (1978) and Galbraith and Schendel (1983) stressed that competitive strategy was not a static phenomenon, but a sequence of interconnected actions and reactions unfolding over time. Porter (1985) considered that in the long-term the extent to which the firm is able to create a defensible position in an industry is a major determinant of the success with which it will out-perform its competitors. Two schools of thought have emerged regarding the conceptualization and adoption of competitive strategies. One group of scholars advocate for adoption of a single strategy (Nayyar, 1993; Green, Lisboa & Yasin, 1993) while others show that a combination of various strategies yields the greatest performance based on research conducted in top performing companies such as Toyota and Proctor & Gamble (Reitsperger, Daniel, Tallman & Chisman, 1993). This section of research looks at how the three value chain management strategies of cost reduction, differentiation and partnership can be executed simultaneously, with other strategies to achieve competitive advantage by highlighting various empirical studies made on the same.

2.2.1 Cost Reduction Strategy for Competitive advantage

Barney & Hesterley (2006) explain that the ability of a valuable cost leadership strategy to create a sustainable competitive advantage is conditional upon the strategy being rare and costly to imitate. According to Armstrong (1987) Toyota topped ratings of product reliability and customer satisfaction while simultaneously producing cars for US$1500 less per unit than their US rivals by using the techniques of managing conflict across its value chain. Cooper and Lybrand (1996) conducted a study on 213 companies in Pakistan to examine “the impact of value chain analysis on the profit margin of firms”. The findings indicated a strong link between value chain analysis and profit margin of the firm. Their conclusions attested to the theory that analysis of the value chain can indeed lead to adoption of new strategies that can increase a company’s profitability. The study equally shows that 57% of the respondents agreed that the value chain analysis is a useful technique in developing strategies that minimizing the operational cost of a business. This gives the firm the opportunity of cost leadership position in the industry thereby resulting to superior performance (Akenbor & Okoye, 2011). The study
however did not consider other performance variables such as market share and prevailing economic conditions.

Urbig (2003) presented findings from his research amongst selected companies in Berlin titled “Value Chain Values: Interpretation and Implications of the Value Chain for firm and Industry analysis”. The study revealed that the value chain analysis enables company executives to control cost drivers better than the competitors and thus creating above average performance in operational efficiency, profitability, market share, customers’ satisfaction, innovations, quality, and assets utilization.

The theory has none the less received its share of criticisms over the years. According to Donelan & Kaplan (1998), systems are not designed to assign costs to value-added activities, but with the introduction of activity-based costing if well implemented, the problem of assigning costs to activities can be solved. Second, it can be difficult to find accurate return on sales and return on asset data to determine the value chain. Nonetheless, rough estimates can be used to give some insight into the value chain. Lastly, not only do estimates make the value chain difficult to determine, but many industries have very complex value chains. Even though there are a few challenges to the value chain approach, it can be a very effective Strategic Management Accounting tool (Puolamaki, 2006). When competition is fierce, companies must precisely manage their activities and costs to sustain their competitive advantage (Akenbor & Okoye, 2011).

In most recent years, Bamburi Cement zeroed in on energy costs, which are a key component of its cost of production, through pet coke substitution in Uganda, higher alternative fuel substitution at Nairobi Grinding Plant, higher clinker production in Mombasa by way of process mastery and overall process improvements across all sites. The company has continued to implement the use of alternative fuels as a substitute of the expensive heavy fuel oil, using readily available alternative fuels from industrial and agricultural wastes such as rice, coffee husks and tyre dust at its plant operations in Athi River, Kenya. By the close of 2015, the plant achieved a monthly average substitution rate of 50% using rice husks mixed with tyre dust. This represented a minimum of 30% reduction in Fuel cost index. The Hima plant in Uganda also installed a new hot gas generator for the pozzolana dryer that uses biomass and has reduced
heavy fuel oil consumption at drying stage from 100% to less than 10%. Successful cost reduction has helped Bamburi to sustain a strong profits margin (Lafarge, 2016)

### 2.2.2 Differentiation for competitive advantage

According to Porter (1985) differentiation may generate superior profitability for the reason that it provides insulation against competitive rivalry because of brand loyalty by customers and resulting lower sensitivity to price. It also increases margins, which avoids the need for a low-cost position. The resulting customer loyalty and the need for a competitor to overcome uniqueness provide entry barriers. Differentiation yields higher margins with which to deal with supplier power, and it clearly mitigates buyer power, since buyers lack comparable alternatives and is thereby less sensitive to prices.

Differentiation can also be a means of reducing costs. Methods such as total quality management and just in time were key differentiators in Toyota’s value chain that also served to reduce manufacturing costs and improve profit margins. Buzzell and Wiersema (1981) suggest that differentiation should be translated into product improvement in order for the cost reducing effect to dominate. Increase in product quality is believed to have beneficial effects on the relative product demand. When increased demand is addressed by increase in volumes, there may be indirect beneficial effects on market position.

Mitchell (1987) observed that in North America, the Kellogg Company had sustained its impressive lead in the breakfast cereals industry by simultaneously leading in the introduction and development of new production techniques, new product introductions, and brand loyalty. By adopting a differentiation strategy, they were able to create greater value in their product, hence attaining a competitive position in the industry (Yamin, Gunasekaran and Mavondo, 1998).

Schiebel (2005) released a research paper on “Value Chain Analysis and Competitive advantage in Telecommunication firms in the United Kingdom”. She administered a total of 1,316 copies of questionnaires to staff in marketing departments of telecommunication companies to elicit their responses on the relevance of value chain analysis in gaining competitive advantage. The data from her study, which were analyzed using the mean scores, indicated that the value chain analysis does not only reveal cost advantages but also brings
attention to several sources of differentiation advantage relative to competitors. It equally identifies those activities that are critical to buyer satisfaction and market success. This enables the firm to achieve above-average customer satisfaction market share, and profit margin. A similar study is equally necessary for the manufacturing industry to examine its significance (Akenbor and Okoye, 2011).

Finally, Karnani (1984) argues that differentiation does not need to be compromised by lower costs, provided that a firm can establish access to low labour costs, for instance by delocalizing business units to low wage countries. According to Wright (1991), the argument can be expanded to include other low cost inputs, e.g. low cost raw materials, energy, freight and semi-finished products. Gaining access to preferential distribution channels may also be a means to pursue differentiation without necessarily increasing costs.

In the case of Bamburi Cement, the company has taken various initiatives to differentiate itself from other competitors, including strict adherence to quality standards. An example of such is the development of Powercrete launched in 2014, which is an ultrahigh strength cement meeting Kenya, European and Chinese standards. It was supplied to a number of high profile projects, including the Standard Gauge Railway. Bamburi also launched a Mobile Concrete Laboratory, to provide onsite concrete laboratory testing facilities to our customers, further maintaining quality standards in mixing of cement for construction. This contributed to the company’s profit increasing by 9% to Ksh39.2 billion at the end of 2015. It has also strived to focus its production on customer demands thereby seeking to increase the value of its products through innovations coupled with production of strong brands and more focused marketing efforts. The company has worked to improve its channel mix through initiatives in the route to market as well as improved product mix through ongoing innovation. Successful differentiation has enabled Bamburi to maintain a lead in the cement production industry as well as sustain brand loyalty by its clientele. The company still makes a healthy profit margin despite its product retailing at the highest price in the market and amidst poor market conditions.
2.2.3 Partnership for competitive advantage

The decision on the mode of relationship between the value chain partners is strategic in nature and has the primary bearing on the success of the value chain, especially during business phase shifts. The corporate environment necessitates multiple modes of relationships for transfer of material, especially on the supply side of the value chain. The choice of mode of relationship among the value chain partners is critical in the value chain's efficiency and has to be focused on for reaping strategic benefits for the organization. Partnerships may take many forms, among them being mergers, joint ventures, acquisitions, long term contracts and buyer-seller relationships (Dyer, 1998).

Distribution is one of the key aspects of the value chain outbound activities that ensures a company’s products are accessible to the customers. It is hence very crucial to any firm to have its products as widely accessible to its target market segment over a vast geographic landscape. According to official statistics, an amazing 1.9 billion products of Coca-Cola are sold every day in over 200 countries around the world. The Coca-Cola Company is a global business that operates on a local scale, in every community where they do business. The company is able to create a global reach with local focus because of the strength of its distribution system and their more than 250 bottling partners worldwide. Their distribution partners have contributed to the company’s large market share and continued demand, making Coke the best performing Beverage Company in the world. This attests to the immense benefits that can be derived from partnerships within the value chain (Lu and Tiwana, 2015).

Some organizations have been known to partner with wholesalers and retailers who sell their products. The company would invest in training them on how to use the product as well as providing general knowledge on its value and benefits to the customer. This puts them in the best possible position for staying ahead of their competition and winning new customers. The company also benefits from having its product easily accessible, receiving data on the bestselling brands and at times feedback from customers about product performance. Customers are able to access advice and information about the product from the seller which may increase sales and further drive up the company’s profits.
Knowledge partnerships are associations and networks of individuals or organizations that share a purpose or goal and whose members contribute knowledge, experience, resources, and connections, and participate in two-way communications. They thrive when there is a strategic, structural, and cultural fit, and when members embrace a collaborative process, behave as a coherent entity, and engage in joint decision making and action (Asia Development Bank, 2010). Nielsen (2003) considers the relationship between subjective measures of international alliance performance and a set of variables, which may act as predictors of success before the alliance is formed, that is pre-alliance formation factors; a set of variables which emerge during the operation of the alliance, referred to as post-alliance formation factors. The empirical study, based on a web-survey, investigates a sample of Danish partner firms engaged in 48 equity joint ventures and 70 non-equity joint ventures with international partners. The results show a significant relationship between alliance performance and partner reputation preceding alliance formation as well as strong relationships between collaborative know-how, trust, and protectiveness and alliance performance during the operation of the alliance.

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2.2.4 Conceptual Framework

The conceptual framework shows the link between the independent variables and the dependent variable. This research explores the relationship between the cost, differentiation and Strategic alliance strategies achieved through the value chain, in relation Bamburi Cement’s competitive advantage.
Figure 2.3 Conceptual Framework

Independent Variables

- **Value chain Cost reduction Strategy**
  1. Large scale production
  2. Use of low cost energy
  3. Use of advanced Technology

- **Value Chain Differentiation Strategy**
  1. High Quality standards
  2. Superior customer support
  3. Green cement production

- **Strategic Alliance**
  1. Distributor partnership
  2. Partnerships with retailers
  3. Collaboration with knowledge partner

Dependent Variable

- **Competitive Advantage**
  1. Large market share
  2. High profit Margin
  3. High production capacity

Source: Adopted (Porter, 1985)
2.3 Research Gap

There has been very little empirical research on competitive strategies that are based on an analysis of the value chain. Most theories on the value chain tend to elaborate on or criticize the applicability of Porter’s (1989) theory rather than adding new knowledge. As such much research still needs to be done to explore how firms can develop strategies leveraged on unique capabilities derived from analysis of its internal resources, of which value chain management strategies offer a simplified way of doing so. Currently, most research has been on the supply chain, as firms continue to battle for more operational efficiency. This is however only a small portion of the bigger value chain that firms have to consider.

Though some research on value chain management strategies is comprehensive, the main focus is usually on western countries whose local contexts differ greatly from that of African countries. Furthermore, the studies do not all consider other social, economic or political conditions prevailing during the period of research that may have contributed to the company gaining competitive advantage. There is therefore an assumption that competitive advantage is directly related to the success of the strategies. The lack of coherence in research on value chain management strategies as well as the absence of an African context calls for more scholarly input, part of which this paper seeks to contribute to.
CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

Research methodology refers to the various steps that are generally adopted by a researcher in studying his research problem along with the logic behind them (Kothari, 2004). This chapter elaborates on methods employed in gathering the data used in this research. It includes the research design, the target population, sample and sampling techniques, data collection tools and process as well as data analysis and presentation.

3.1 Research Design

A research design is the conceptual structure within which research is conducted and constitutes the blueprint for the collection, measurement and analysis of data (Kothari, 2004). A descriptive survey design was selected for this research because it explores the characteristics of a particular item, the value chain of Bamburi Cement Company. The study investigated the implications of the three generic strategies of cost, differentiation and partnership adopted from the value chain on the competitive advantage of the company over the past 10 years.

The research made use of both primary and secondary data to ascertain its findings. Primary data was collected from respondents selected through a stratified random sampling technique by use of structured questionnaires. Secondary data was obtained from various publications and articles on the cement industry in Kenya as well as Bamburi Cement’s midterm and annual reports. The data was then analyzed through use of SPSS software and presented in the form of statistical tables, charts and graphs.
3.2 Target Population

A target population is the list of elements from which the sample is actually drawn (Cooper and Schindler, 2011). The target population for this research was the 495 employees of Bamburi Cement based at the head office in Upper Hill, Nairobi. The employees oversee the various departments of the organization as well as its subsidiaries. Though strategy is a function of management, the study included all the employees of the organization as a population so as to sufficiently capture the intricate details of the complex value chain that may not be limited to top management. The research thus applied a stratified random sampling method to collect data. The method was selected to reduce bias and ensure each strata was sufficiently represented.

3.3 Sample and sampling technique

A sample is part of the target population that has been procedurally selected to present the entire population (Oso and Onen 2009). The researcher desired to apply a simplified formula for proportions derived by Yamane (1967) to calculate sample sizes. In this formula the researcher desired 95% confidence level and maximum variability (P) of 0.5 and ± 5% precision. Where n is the sample size, N is the population size, and e is the level of precision.

\[
n = \frac{N}{1 + N (e)^2} = \frac{495}{1 + 495 (0.05)^2} = 222
\]

According to Mugo (2000) sampling techniques are the technique of selecting a suitable sample or a representative part of a population. This study employed stratified random sampling method to select respondents who would fill out the administered questionnaires. Stratified random sampling was applied so as to obtain a representative sample as the population from which it was to be drawn did not constitute a homogeneous group. In this technique, the population was stratified into a number of strata with similar characteristics, from which the samples were selected at random. If the items selected from each stratum are based on simple random sampling, the entire procedure, first stratification and then simple random sampling, is known as stratified random sampling (Kothari 2008).
Table 2: Target Population and sample of study

<table>
<thead>
<tr>
<th>Cadre</th>
<th>Population size</th>
<th>Sample size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finance</td>
<td>86</td>
<td>40</td>
</tr>
<tr>
<td>Commercial</td>
<td>150</td>
<td>57</td>
</tr>
<tr>
<td>Human Resources</td>
<td>45</td>
<td>23</td>
</tr>
<tr>
<td>Corporate Communications and sustainable Development</td>
<td>53</td>
<td>22</td>
</tr>
<tr>
<td>Bamburi Special products</td>
<td>98</td>
<td>48</td>
</tr>
<tr>
<td>Supply Chain</td>
<td>63</td>
<td>32</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>495</strong></td>
<td><strong>222</strong></td>
</tr>
</tbody>
</table>

3.4 Data collection Instruments

Primary data for this research was collected through use of self -administered questionnaires dispersed to the respondents .The questionnaire had 18 structured questions and was divided into four sections. The first section was designed to acquire general information about the respondent’s age, gender, education level as well as length of service in the organization. The aim of this section was to assess the characteristics of the respondents who make up the sample. Section two, three and four were attributed to the cost reduction, differentiation and Strategic alliance strategies respectively. The respondents ranked the company against each indicator to determine the extent to which the factors contribute to competitive advantage. The last section assessed how the attributes of each strategy collectively influence competitive advantage through use of a Likert scale. Secondary data was collected virtually from publications, articles and reports on the cement industry in Kenya and Bamburi Cement Company.

3.5 Data Collection

A drop off survey procedure was used, where the questionnaires was delivered and picked up three days later to enable respondents fill them in at their most convenient time and also have enough time to think through the questions before they respond. There was no prior orientation
of respondents but a support letter was attached to explain the purpose and importance of the research. Secondary data was obtained through review of online articles and reports from independent writers and researchers, as well as publications from the Kenya Association of Manufacturers, the Kenya National Bureau of Standards and the Bamburi Cement Company.

**3.6 Validity and Reliability**

Sound measurement must meet the tests of validity and reliability. They are the two major considerations one should use in evaluating a measurement tool. Validity refers to the extent to which a test measures what we actually wish to measure. Reliability has to do with the accuracy and precision of a measurement procedure (Kothari, 2008). The instrument was presented for review to the supervising lecturers who ascertained its content validity, this is the extent to which the questionnaire provides adequate coverage of the topic under study (Kothari, 2008). The validity was ascertained through a pre-test, where the instrument was distributed to a smaller percentage of the actual sample to verify relevance, reliability and availability of the information requested. Concurrence was tested by comparing the findings from the questionnaires with those gathered through secondary sources. A measuring instrument is reliable if it provides consistent results throughout the research.

The research ensured reliability through the test-retest method which involved two separate administrations of the same instrument. This test was done to investigate whether there was correlation between the two results. High correlation attests to the reliability of the instrument. For this purpose the questionnaire was distributed to the same sample twice over a span of two weeks. The researcher tested for coherence by undertaking a correlation analysis of the various independent variables and the dependent variable. Correlation measures the extent to which variables are related after one has confirmed that there is indeed a relationship. The correlation is given by the formula below, where x and y are the variables. The result was a test-retest reliability coefficient of 0.55, which shows a significant relationship between the two tests, implying that the variables move in the same direction and hence that the instrument was reliable.
3.7 Data Analysis and presentation

The term analysis refers to the computation of certain measures and searching for patterns of relationship that exist among data-groups. Thus, in the process of analysis, relationships or differences supporting or conflicting with original or new hypotheses are subjected to statistical tests of significance to determine with what validity data can be said to support any conclusions (Kothari, 2008).

Analysis involves processing, which includes editing, coding, classification and tabulation of collected data. The researcher made use of Statistical Package for Social Sciences (SPSS) software to process and analyze both qualitative and quantitative data. It provided statistics on the relationships between the various variables. Correlation tests were applied to investigate the relationship between the value chain strategies and competitive advantage. Data presentation simply refers to the way in which the findings from research are presented. The findings of this research were presented through use of statistical tables, bar graphs and charts.

3.8 Ethics

Ethics refers to the norms of conduct that distinguish between acceptable and unacceptable behavior (Resnik, 2015). Basic ethical principles governing data collection, analysis and dissemination were observed. Participants were adequately informed of the purpose of the research before engagement to ensure that they give informed consent and do not feel coerced. Confidentiality was also upheld in ensuring that the identities of the respondents were not disclosed in the findings of the research. This reduced chances of occurrence of physical or psychological harm to respondents as a result of taking part in the research.
CHAPTER FOUR

PRESENTATION, DISCUSSIONS AND INTERPRETATION OF FINDINGS

4.0 Introduction

This chapter is a presentation of the research findings subsequent to the data collection and analysis described in chapter three. The results are presented in the form of charts and tables. For values attributed to the Likert scale, percentages were used for the values attributed to the extent and level of agreement or disagreement with the statements. The data was analyzed using the SPSS software to produce the results presented. For a sample size of 222 employees, self-administered questionnaires were distributed using stratified random sampling in each of the 6 departments at the head office of Bamburi Cement. Out of the 222 questionnaires distributed, 166 were returned, representing a response rate of 75%. Mugenda and Mugenda (2003) stated that a response rate of 50% and above is a sufficient threshold for analysis.

4.1 Respondent’s profile

4.1.1 Respondent’s gender

The Figure shows the gender of the respondents who took part in the research.

Figure 4.1 Respondent’s gender
Figure 4.1 shows that 54.22% of the respondents were male and 45.76% were female. This implies that the workforce at Bamburi cement is well balanced between the two genders, with each one having significant representation.

4.1.2 Employment level

The Figure shows the employment levels of respondents who took part in the research.

Figure 4.2 Respondent’s employment level

Figure 4.2 shows that 51.20% of the respondents were at the lower management level, 25.30% at middle management, 11.45% at top level and 12.05% to the category defined as other that includes secretaries and clerical officers. This implies that 87.95% of the respondents occupied a management position and were hence were well versed with the internal operations of the company.
4.1.3 Department where respondent is based

The Figure below shows the departments the respondents were based in during the period of research.

Figure: 4.3 Department where respondent is based

Figure 4.3 shows that 30.53% of the respondents work in the commercial department, 20.89% in Bamburi Special Products, 16.02% in Finance, 15.06% in Supply Chain, 11.45% in Corporate Communications and Sustainable development and 0.6% in the Human resource department. This shows that the research covered all the departments, satisfying the requirements of a sufficient sample.
4.1.4 Number of years respondents have worked at Bamburi Cement

The diagram shows the number of years the respondents had worked at Bamburi Cement.

Figure 4.4 Number of years served at Bamburi Cement

Figure 4.4 shows that 2.41% of the employees have worked at the company for less than a year, 16.87% for 1-4 years, 62.05% for 5-10 years and 18.67% for over 10 years. 80.72% of the respondents have worked in the company for more than 5 years. This shows they are well versed with the operations of the company.
4.1.5 Level of education

The Figure shows the level of education of the respondents.

Figure 4.5 Respondents’ level of education

![Bar chart showing level of education]

Figure 4.5 shows that 27.1% of respondents have a Master’s degree, 15.1% have diplomas, 56.63% have degrees and 0.6% have a certificate or a lower academic qualification. This implies that the workforce at Bamburi Cement is well educated.
4.2 Value Chain cost reduction strategy

4.2.1 Major cost drivers in Bamburi’s Value chain

The Table shows the major cost drivers in Bamburi Cement’s value chain

Table 3: Value chain cost drivers

<table>
<thead>
<tr>
<th>Cost driver</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human resources costs</td>
<td>17</td>
<td>10.2</td>
</tr>
<tr>
<td>Purchase of raw materials</td>
<td>39</td>
<td>23.5</td>
</tr>
<tr>
<td>Operations</td>
<td>99</td>
<td>59.6</td>
</tr>
<tr>
<td>Distribution costs</td>
<td>11</td>
<td>6.6</td>
</tr>
<tr>
<td>Total</td>
<td>166</td>
<td>100.0</td>
</tr>
</tbody>
</table>

According to Table 3, a large majority of respondents, 59.6% attributed high cost to operations, this was followed by purchase of raw materials at 23%, Human resource at 10.2% and Distribution costs at 6.6%. This implies that the company has very high overhead costs, attributed to the transformation of the raw material into the finished product.
### 4.2.2 Effect of cost strategies on production costs

The Table shows the extent of the effects of the cost reduction strategies on production costs

Table 4: Effect of Cost reduction strategies on production costs

<table>
<thead>
<tr>
<th></th>
<th>Great extent</th>
<th>Moderate extent</th>
<th>Minimal extent</th>
<th>Small extent</th>
<th>Negligible extent</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>%</td>
<td>Frequency</td>
<td>%</td>
<td>Frequency</td>
<td>%</td>
</tr>
<tr>
<td>Large scale production of cement</td>
<td>124</td>
<td>74.7</td>
<td>34</td>
<td>20.5</td>
<td>6</td>
<td>3.6</td>
</tr>
<tr>
<td>Use of low cost energy in production</td>
<td>127</td>
<td>76.5</td>
<td>20</td>
<td>12</td>
<td>11</td>
<td>6.6</td>
</tr>
<tr>
<td>Use of advanced technology</td>
<td>85</td>
<td>51.2</td>
<td>68</td>
<td>41.0</td>
<td>8</td>
<td>4.8</td>
</tr>
<tr>
<td>Automation of factory operations</td>
<td>110</td>
<td>66.3</td>
<td>46</td>
<td>27.7</td>
<td>8</td>
<td>4.8</td>
</tr>
<tr>
<td>Strict controls to elimination waste</td>
<td>110</td>
<td>66.3</td>
<td>42</td>
<td>25.3</td>
<td>8</td>
<td>4.8</td>
</tr>
</tbody>
</table>
The values in Table 4 show that most employees rate use of low cost energy as the highest contributor to the reduction of production costs with 76.5% of respondents agreeing that it does so to a great extent, followed by large scale production at 74.7%, strict controls and automation at 66.3% and use of advanced technology at 51.2%. Low cost energy in this case is attributed to use of bio energy in the production process, as elaborated in chapter two. Large scale production is the overall quantity of output produced by the company’s plants per production run. Use of advanced technology denotes making use of more advanced ways of ensuring quality, tracking output, variations of components, fluid content and varying concrete strength depending on the client specifications. Automation simply refers to use of machines to run a pre-set production process. It may make use of old or current technology to ensure efficiency and faster work process. Strict controls refer to standards that have to be maintained to ensure a smooth work process and eliminate wastage.

4.3 Value Chain differentiation Strategy

4.3.1 Main differentiation factor with regards to the company’s products

The Table shows the main differentiation factors of the company’s products

Table 5: Product differentiation factors

<table>
<thead>
<tr>
<th>Differentiation factor</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product quality</td>
<td>135</td>
<td>81.3</td>
</tr>
<tr>
<td>Continuous product improvement</td>
<td>18</td>
<td>10.8</td>
</tr>
<tr>
<td>Specialized customer support</td>
<td>13</td>
<td>7.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>166</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>

The findings in Table 5 show that 81.3% of employees rank product quality as the main point of differentiation for the company’s products, followed by continuous product improvement at 10.8% and specialized customer support at 7.8%. Product quality in this case refers to durability, strength of the cement, normally specified by the grade and the percentage of impurities found within it. Continuous product improvement is characterized by adoption of findings from research and development that
improve the product or production process while specialized customer support refers to after sale services to customers as well as training of masons, wholesalers and engineers on best practices and proper use of their products (Lafarge, 2015)

4.3.2 Product differentiation factors

The Table shows the extent to which the differentiation factors contribute to the strategy.

Table 6: Product differentiation factors

<table>
<thead>
<tr>
<th>Factor</th>
<th>Great extent</th>
<th>Moderate extent</th>
<th>Minimal extent</th>
<th>Small extent 2</th>
<th>Negligible extent 1</th>
<th>Total Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>International standards</td>
<td>156</td>
<td>94</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>166</td>
<td>100</td>
</tr>
<tr>
<td>Specialized customer support</td>
<td>74</td>
<td>44.6</td>
<td>84</td>
<td>50.6</td>
<td>7</td>
<td>4.2</td>
<td>166</td>
</tr>
<tr>
<td>Production of green cement</td>
<td>60</td>
<td>36.1</td>
<td>40</td>
<td>24.1</td>
<td>45</td>
<td>27.1</td>
<td>166</td>
</tr>
<tr>
<td>Advanced research &amp; development</td>
<td>148</td>
<td>89.2</td>
<td>16</td>
<td>9.6</td>
<td>2</td>
<td>1.2</td>
<td>166</td>
</tr>
<tr>
<td>Advanced technology</td>
<td>124</td>
<td>74.7</td>
<td>34</td>
<td>20.5</td>
<td>8</td>
<td>4.8</td>
<td>166</td>
</tr>
</tbody>
</table>
The findings from Table 6 show that 94% of respondents are of the opinion that adherence to international standards has greatly contributed to the success of the company’s strategy, with advanced research and development taking second place at 89.2%, use of advanced energy at 74.7%, specialized customer support at 44.6% and production of green cement at 36.1%. This shows that the variables have a significant effect on differentiation except for production of green cement, which is quite minimal. Green cement in this case refers to production of cement that is environmentally friendly both in production and use. Its low rating implies that the factor is not very significant to the target market in determining their choice to purchase the product.

4.3.3 Factors contributing to product quality

The Table shows the contribution of various factors to product quality.

Table 7: Factors contributing to product quality

<table>
<thead>
<tr>
<th>Factor</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strict controls in production</td>
<td>18</td>
<td>10.8</td>
</tr>
<tr>
<td>Continuous research and development</td>
<td>27</td>
<td>16.3</td>
</tr>
<tr>
<td>Adherence to international standards</td>
<td>121</td>
<td>72.9</td>
</tr>
<tr>
<td>Total</td>
<td>166</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 7 shows that product quality is mostly attributed to adherence to international standards, being ranked first by 72.9% of respondents, followed by continuous research and development at 16.3% and strict controls in production at 10.8%. This implies that the company has very high production standards and that the quality of raw materials is not very significant in determining products quality.
4.4 Partnerships with distributors

The table shows the existence of partnerships with retailers

Table 8: Existence of partnerships with distributors

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>158</td>
<td>95.2</td>
</tr>
<tr>
<td>No</td>
<td>8</td>
<td>4.8</td>
</tr>
<tr>
<td>Total</td>
<td>166</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 8 shows that 95.2% of respondents agree to the existence of partnerships with distributors, while 8% disagreed. This shows that Bamburi Cement has partnerships with distributors.

4.4.1 The greatest benefit derived from distributor partnership

The table shows responses on the benefits derived from distributor partnerships

Table 9: Benefits derived from distributor partnerships

<table>
<thead>
<tr>
<th>Factors</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extensive market reaches</td>
<td>103</td>
<td>62.0</td>
</tr>
<tr>
<td>Reduced operational costs</td>
<td>16</td>
<td>9.6</td>
</tr>
<tr>
<td>Faster delivery of products to customers</td>
<td>39</td>
<td>23.5</td>
</tr>
<tr>
<td>Not applicable</td>
<td>8</td>
<td>4.8</td>
</tr>
<tr>
<td>Total</td>
<td>166</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 9 shows that majority of the respondents, 62% rank extensive market reaches at the most significant benefit derived from distributor partnership, 23.5% to faster delivery of products, 9.6% to
reduced costs and 4.8% said it does not apply, as they are not aware of any partnerships with distributors. This implies that the company has an extensive market which it is able to reach through the distributors it has partnered with.

4.4.2 Existence of partnerships with retailers

The Table shows the existence of partnerships with retailers.

Table 10: Existence of partnerships with retailers

<table>
<thead>
<tr>
<th>Responses</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>166</td>
<td>100.0</td>
</tr>
</tbody>
</table>

Table 10 shows that Bamburi Cement has partnerships with retailers with 100% of respondents agreeing to the statement.

4.4.3 Benefits derived from retailer partnerships

The Table shows the benefits derived from partnerships with retailers.

Table 11: Greatest benefit derived from retailer partnerships

<table>
<thead>
<tr>
<th>Factors</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feedback from customers</td>
<td>1</td>
<td>0.6</td>
</tr>
<tr>
<td>Ability to provide information on products to customers</td>
<td>116</td>
<td>69.9</td>
</tr>
<tr>
<td>Data on best-selling brands</td>
<td>31</td>
<td>18.7</td>
</tr>
<tr>
<td>Opportunities to advertise</td>
<td>1</td>
<td>0.6</td>
</tr>
<tr>
<td>Increased sales margins</td>
<td>17</td>
<td>10.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>166</strong></td>
<td><strong>100.0</strong></td>
</tr>
</tbody>
</table>
Table 11 shows that majority of the respondents, 69.9% view the ability to provide information to customers as the greatest benefit derived from partnership with retailers, 18.7% to data on best-selling brands and 0.6% on opportunities to advertise and to get feedback from customers. This demonstrates the importance of retailers to Bamburi Cement in relaying information between the company and its customers.

**4.4.4 Extent of contribution towards Bamburi’s large market share**

The Table below shows the extent to which the variables contribute to Bamburi Cement’s market share

Table 12: Strategic Advantage factors

<table>
<thead>
<tr>
<th></th>
<th>Great extent</th>
<th>Moderate extent</th>
<th>Minimal extent</th>
<th>Small extent</th>
<th>Negligible extent</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequency</td>
<td>%</td>
<td>Frequency</td>
<td>%</td>
<td>Frequency</td>
<td>%</td>
</tr>
<tr>
<td>Distributor partnership</td>
<td>124</td>
<td>74.7</td>
<td>34</td>
<td>20.5</td>
<td>4</td>
<td>2.4</td>
</tr>
<tr>
<td>Partnerships with retailers</td>
<td>36</td>
<td>21.7</td>
<td>12</td>
<td>73.5</td>
<td>5</td>
<td>3.0</td>
</tr>
<tr>
<td>Collaboration with Knowledge partner</td>
<td>127</td>
<td>76.5</td>
<td>21</td>
<td>12.7</td>
<td>10</td>
<td>6.0</td>
</tr>
</tbody>
</table>

Table 12 shows that 76.6% percent of respondents attribute the success of the Strategic alliance to collaboration with a knowledge partners, 74.7% to distributor partnership and 21.7% to partnership with retailers. This validates the importance of partnerships to the company but also shows that its partnership with retailers lacks significant effect on the overall success of the strategy.
### 4.4.5 Degree of agreement or Disagreement with statement

The Table shows the extent to which respondents agree/disagree with statements on competitive advantage

Table 13: Strategic advantage statements

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Tend to Agree</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>The cost reduction strategy has directly contributed to high profit</td>
<td>83</td>
<td>65</td>
<td>39.2</td>
<td>15</td>
<td>2</td>
<td>166</td>
</tr>
<tr>
<td>Large market share can be attributed to successful product differentiation</td>
<td>155</td>
<td>10</td>
<td>6.0</td>
<td>1</td>
<td>0</td>
<td>166</td>
</tr>
<tr>
<td>Strategic alliances have contributed to competitive advantage</td>
<td>149</td>
<td>10</td>
<td>6.0</td>
<td>5</td>
<td>2</td>
<td>166</td>
</tr>
<tr>
<td>High production capacity is a major contributor to competitive advantage</td>
<td>151</td>
<td>10</td>
<td>6.0</td>
<td>4</td>
<td>1</td>
<td>166</td>
</tr>
<tr>
<td>Large market share is a major contributor to competitive advantage</td>
<td>143</td>
<td>17</td>
<td>10.2</td>
<td>6</td>
<td>1</td>
<td>166</td>
</tr>
<tr>
<td>High profit margin is a major contributor to competitive advantage</td>
<td>52</td>
<td>80</td>
<td>48.2</td>
<td>27</td>
<td>1</td>
<td>166</td>
</tr>
</tbody>
</table>
As shown in Table 13, 83% of respondents agree that the cost reduction strategy has directly contributed to high profit. This implies that the factor is momentous and that its contribution is very significant in increasing profits. A further 93.4% of respondents agreed that large market share can be attributed to successful product differentiation. This is confirmed by Bamburi’s 40% share of the local market supported by high product quality and customer loyalty. 89.8% of respondents agreed that Strategic alliances have contributed to competitive advantage, 91% agree that high production capacity is a major contributor to competitive advantage, 86.1% that large market share is a major contributor to competitive advantage and 31.3% that high profit margin is a major contributor to competitive advantage. This implies that the cost reduction, differentiation and Strategic alliance strategies contribute significantly to the company’s competitive advantage.

4.5 Correlation Analysis

The reliability of the data was tested using the Pearson Correlation coefficient which measures the strength and direction of a linear relationship between two variables on a scatter plot. The value of $r$ is always between +1 and –1 where positive values of $r$ imply positive correlation while negative value of $r$ imply negative correlation. Values between ±0.5 and ±1 imply a moderate to strong relationship and that both variables tend to increase or decrease together while those lower than ± 0.3 imply a weak but significant relationship. For values marked **, Correlation is significant at the 0.01 level (2-tailed test) while for those with *, Correlation is significant at the 0.05 level (2-tailed test). The subsequent table shows the correlation analysis for the various variables of the cost reduction, differentiation and strategic alliance strategies with competitive advantage variables of large market share, high profit margin and high production capacity.
Table 14: Correlation Analysis

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost Reduction Strategy</td>
<td>0.360**</td>
<td>-0.042</td>
<td>0.097</td>
<td>0.111</td>
<td>0.311**</td>
<td>0.115</td>
</tr>
<tr>
<td>Cost Drivers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Large scale production</td>
<td>0.316**</td>
<td>0.100</td>
<td>0.187*</td>
<td>0.437**</td>
<td>0.423**</td>
<td>0.201**</td>
</tr>
<tr>
<td>Low cost energy</td>
<td>0.439**</td>
<td>0.127</td>
<td>0.428**</td>
<td>0.197*</td>
<td>0.470**</td>
<td>0.160*</td>
</tr>
<tr>
<td>Use of Advanced Technology</td>
<td>0.014</td>
<td>0.224**</td>
<td>0.194*</td>
<td>0.318**</td>
<td>0.253**</td>
<td>0.104</td>
</tr>
<tr>
<td>Automation</td>
<td>0.028</td>
<td>0.304**</td>
<td>0.153*</td>
<td>0.221**</td>
<td>0.184*</td>
<td>0.095</td>
</tr>
<tr>
<td>Strict controls to eliminate waste</td>
<td>0.089</td>
<td>0.117</td>
<td>0.114</td>
<td>0.311**</td>
<td>0.266**</td>
<td>0.124</td>
</tr>
<tr>
<td>Differentiation strategy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product Differentiation factors</td>
<td>0.101</td>
<td>-0.279**</td>
<td>-0.282**</td>
<td>-0.177*</td>
<td>-0.213**</td>
<td>-0.087</td>
</tr>
<tr>
<td>Adherence to International Quality standards</td>
<td>0.218**</td>
<td>0.295**</td>
<td>0.071</td>
<td>0.042</td>
<td>0.177*</td>
<td>0.070</td>
</tr>
<tr>
<td>Specialized Customer support</td>
<td>0.269**</td>
<td>0.056</td>
<td>-0.074</td>
<td>0.198*</td>
<td>0.086</td>
<td>0.036</td>
</tr>
<tr>
<td>Green cement production</td>
<td>-0.258**</td>
<td>0.179*</td>
<td>0.365**</td>
<td>0.307**</td>
<td>0.340**</td>
<td>-0.028</td>
</tr>
<tr>
<td>Advanced Research and Development</td>
<td>-0.044</td>
<td>0.270**</td>
<td>0.288**</td>
<td>0.358**</td>
<td>0.269**</td>
<td>0.093</td>
</tr>
<tr>
<td>Use of Advanced Technology</td>
<td>0.024</td>
<td>0.286**</td>
<td>0.363**</td>
<td>0.534**</td>
<td>0.333**</td>
<td>0.238**</td>
</tr>
<tr>
<td>Quality determinant factors</td>
<td>-0.327**</td>
<td>0.110</td>
<td>0.211**</td>
<td>0.143</td>
<td>0.327**</td>
<td>0.120</td>
</tr>
<tr>
<td>Strategic Alliance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Existence of Distributor partnerships</td>
<td>0.037</td>
<td>-0.342**</td>
<td>-0.369**</td>
<td>-0.127</td>
<td>-0.218**</td>
<td>-0.075</td>
</tr>
<tr>
<td>Benefits of Distributor partnerships</td>
<td>0.167*</td>
<td>-0.294**</td>
<td>-0.328**</td>
<td>-0.182*</td>
<td>-0.348**</td>
<td>-0.056</td>
</tr>
</tbody>
</table>
4.5.1 Cost reduction strategy and competitive advantage

As per table 14, most of the variables in the cost reduction strategy show positive correlation with competitive advantage variables, with 63.89% of the values being positive and significant. This implies that most of the variables are related and move in the same direction. Large scale production exhibited a moderately significant relationship with competitive advantage variables with 50% of the variables having a correlation coefficient value above 0.3. This suggests a moderate relationship between the variable, aside from market share which had a coefficient of 1.0; implying that cost does not have a substantial effect on market share. Low cost energy revealed to have a significant effect on competitive advantage with 50% of its variables having a correlation coefficient value above 0.4. The factor however had the lowest correlation value of 0.127 with the market share factor, implying that low cost energy has no influence on market share. For advanced technology, only 33.33% of variables exhibited a correlation coefficient greater than 0.3. The factor had a weak relationship with each of the high profit, market share and production capacity variables. We can therefore deduce that, advanced technology does not have a significant effect on competitive advantage. Due to the fact that there is no substantial relationship between advanced technology and competitive advantage, while there is an adequately significant relationship between large scale production and use of low cost energy, it can be concluded that the cost reduction strategy has a moderate effect on the competitive advantage of Bamburi Cement.
4.5.2 Differentiation strategy and competitive advantage

From Table 14, it is can be observed that 47.62% of the correlation coefficients are positive and significant, meaning that the variables are related and move in the same direction. Adherence to international standards had considerable correlation with market share and profit margin, with 33% of the variable’s having a significant correlation value. This shows that the product quality, driven by adherence to international standards is key in achieving the large market share and also influences the company’s profit margin. The factor however had a weak correlation with production capacity, indicating that adherence to international standards does not substantially affect the company’s profit margin. Specialized customer support had a weak correlation with the competitive advantage variables, with only 16.67% of variables being significant. Production of green cement showed to be moderately significant with most of the variables having a positive correlation value above 0.3. Correlation with production capacity and profit margin was observed to be -0.028 and – 0.258 respectively. This infers that production of green cement has no effect on the company’s profit or production capacity. We can thus deduce that, the differentiation strategy has a moderate effect on Bamburi Cement’s competitive advantage, attributed mainly to adherence to international standards.

4.5.3 Strategic Alliance and competitive advantage

Table 14 shows that 83.3% of the correlation coefficient values are positive, suggesting that the variables are related and move in the same direction. For distributor partnerships, 50% of the variables were significant, with coefficient values above 0.4, thereby implying a significant relationship between distributor partnerships and competitive advantage. Retailer partnership showed a weak relationship with competitive advantage as 66.67% of the coefficient values were under 0.3, suggesting a weak relationship between the two variables. Collaboration with knowledge partner showed an equally significant relationship with competitive advantage as 50% of the coefficient values were above 0.3. The factor had moderate correlation with each of the profit and market share variables, but has insignificant relationship with large production capacity. Overall, it can be deduced that Strategic alliance has a moderate effect on the competitive advantage of Bamburi Cement. This was also affirmed by 76% of the respondents, who ranking partnership with a knowledge partner as having the greatest contribution to the Strategic alliance strategy, followed by distributor partnership. This implies that partnership with retailers may not be adding value to the company’s overall competitive advantage position.
CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter summarizes the findings of the research in line with the set objectives and analysis of collected data, making necessary recommendations on the topic under study. Areas of further study that may further enrich the current research are also suggested.

5.1 Summary of Findings

The research was carried out to examine the effects of the value chain management strategies of cost reduction, differentiation and strategic alliance on the competitive advantage position of Bamburi Cement. It made use of both primary and secondary data. Primary data was gathered through questionnaires while secondary data was obtained from various publications available on the internet regarding the cement industry in Kenya. The respondents who made up the sample were based at the company’s head office in Upper Hill, Nairobi and were selected through a random sampling technique. Out of the total 222 questionnaires distributed, 166 were filled and returned, representing a 75% response rate.

Findings from the research showed that the workforce at Bamburi Cement was well balanced between the two genders, with 54.2% male and 45.78% female employees. A majority of the respondents had a degree as their highest academic qualification and had worked for the company for more than 5 years. Analysis of the data showed that the cost and differentiation strategy had a substantial effect on competitive advantage, with 52.78% of differentiation variables and 55.56% of cost reduction variables having positive correlation values with competitive advantage variables. This indicated that they have a significant relationship with competitive advantage but their effect on it was fairly moderate. This is affirmed by Schiebel (2005) who indicated that the value chain does not only reveal cost advantages but also brings attention to several sources of differentiation advantage relative to competitors. Her findings revealed that value-chain analysis enhances a firm’s market share and profit margin. Strategic alliance proved to have a minimal effect on competitive advantage, as only 36% of variables showed a positive correlation with competitive advantage variables. 50% of the coefficient
variables were negative, implying that the variables are related but do not move in the same direction. Though partnership with a knowledge partner was highly ranked as a strategic alliance, partnerships with distributors and retailers had a low correlation with competitive advantage.

5.1.1 Cost Reduction Strategy

Under the cost reduction strategy, operations was ranked as the highest cost driver in the company’s value chain, followed closely by the cost of acquiring raw material. Use of low cost energy was the greatest contributor to cost reduction, with economies derived from large scale production also having a significant role in lowering production costs. Most of the factors under the cost reduction strategy showed a positive and relatively moderate correlation to competitive advantage, with 63.89% of the correlation coefficient variables showing a positive and significant relationship between the two factors. This was mainly attributed to large scale production and use of low cost energy which each had positive and significant correlation coefficients above 0.3 for over 50% of the variables. Advanced technology proved to have a weak relationship with competitive advantage with only 33.33% of variables exhibiting a correlation coefficient greater than 0.3. It can hence be deduced that there is a significant relationship between cost reduction and strategic advantage, though the effect of the former on the latter is fairly moderate. The success of the cost reduction strategy can be attributed to large scale production and use of low cost energy.

The findings are consistent with studies by other researchers, sited in the empirical review, which showed a strong link between value chain cost reduction and competitive advantage. Value chain analysis enables company executives to control cost drivers better than the competitors and thus creating above average performance in operational efficiency, profitability, market share, customers’ satisfaction, innovations, quality, and assets utilization. (Urbig, 2003; Cooper & Lybrand, 1996; Barney & Hesterley, 2006).

5.1.2 Differentiation Strategy

The research showed that product quality is the company’s main differentiation factor, with strict adherence to international standards contributing to consistency in quality. Production of green cement proved to have minimal effects on the differentiation strategy. This suggests that the factor is not very significant to the target market when determining which brand or product to
purchase. A large portion of the factors under the differentiation strategy showed a moderate relationship with competitive advantage, as 47.62% of the variables had positive and significant correlation coefficient values. It was evident that adherence to international standards had diminutive consequence on competitive advantage as only 33% of coefficient values were significant. Specialized customer support and production of green cement also had a weak correlation with the competitive advantage variables, with less than 30% of values having a significant correlation value with competitive advantage. It can therefore be concluded that, the differentiation strategy had a weak effect on the competitive advantage of Bamburi cement. This indicates that differentiation had a fairly moderate effect on the competitive advantage of Bamburi cement.

This is consistent with prior studies by Mitchell (1987) and Yamin, Gunasekaran & Mavondo (1998) which showed that competitive advantage can be achieved through adoption of new production techniques, new product introductions and brand loyalty. Though in the case of Bamburi Cement, the effect of differentiation on competitive advantage is quite moderate.

5.1.3 Strategic alliance strategy

The research showed that the company has partnerships with distributors and retailers which enable it to reach its extensive market and provide information on products to its customers. These two variables however show a very weak correlation with competitive advantage, having negative correlation coefficient with the variables. This indicates the presence of a relationship but also shows that the values do not move in the same direction. Contrary to the first two factors, collaboration with a knowledge partner proved to have a great contribution to the company’s strategic alliance strategy. It also had a moderate correlation with competitive advantage, indicating a significant relationship. This is consistent with previous studies that showed advantages of partnerships and collaborations on competitive advantage (Nielson, 2003; Dyer, 1998). Relatively few of the factors under strategic alliance show a positive correlation with competitive advantage, with only 36.11% of the variables having positive correlation coefficients. This indicates that the strategy does not have a very significant effect on the company’s competitive advantage. This is largely attributed to weak correlation of the retailer and distributor partnerships to competitive advantage.
5.2 Conclusion

In conclusion, the main objective of the study was to analyze the effect of value chain management strategies on the competitive advantage of Bamburi Cement Limited. The research was guided by the specific objectives of determining the effect of the value chain cost reduction, differentiation and strategic alliance strategies on competitive advantage. The findings of the research revealed that the cost reduction and differentiation strategy have a fairly moderate effect on Bamburi Cement’s Competitive advantage. Strategic alliance showed a weak relationship with strategic advantage, mostly attributed to weak correlation of the distributor and retailer factors to competitive advantage. This shows that the two factors are not strong components of the company’s strategic alliance strategy.

5.3 Recommendation of the study

Bamburi Cement has maintained its market leadership position in the Kenya cement manufacturing industry over the past decade despite the constraints currently facing the industry. From the findings of the research, it is thus recommended that the following measures be adopted by other cement manufacturers wanting to thrive in the industry despite its challenges. With regards to the cost reduction, the research recommends more aggressive adoption of the strategy by other firms, focusing mainly on use of low cost energy and increase in production capacity to maximize on the advantages derived from economies of scale.

Differentiation is key in competitive markets, and proved to have a fairly moderate effect on the competitive advantage position of Bamburi cement. With the strategy driven by the quality of cement, it is recommended that more manufacturers seek to upgrade the quality of their products to international standards so as to drive up sales, especially with the growing demand for high quality cement for huge infrastructural projects. Bamburi also needs to do more to sell the idea of green cement to its customers and educate them on its importance towards creating greater environmental sustainability. If developed, it may be a major differentiation factor for the company and create more opportunities for sales with contractors that are more conscious about the environment.

On the other hand, alliances with key partners is recommended, as Bamburi’s merger with a knowledge partner, to form LafargeHolcim, showed to be the major factor in contributing
to improved product quality and differentiation. Distributor and retailer partnerships should also be considered to increase a firm’s market reach but may not necessarily improve its competitive position. Bamburi needs to strengthen its own partnerships with distributors and retailers as their contribution to the company’s performance is not viewed as adequately significant in maintaining its market leadership.

5.4 Recommendation for further study

The study focused on the effect of three value chain strategies of cost reduction, differentiation and strategic alliance on competitive advantage, with the variables displaying very moderate to weak effects on competitive advantage. This leaves room for more research into other factors that may prove to be more relevant to the industry or company under study. The determinants of competitive advantage are also not exhaustive, hence further study needs to be carried out to unearth other factors that are alternative or more specific indicators of competitive advantage in the cement industry. The researcher also recommends a study on the value chain of the service industry, and explore the various strategies that may have considerable effect on competitive advantage; most of the studies on value chain tend to focus on the manufacturing industry as they have more distinct primary and secondary activities.
REFERENCES


https://www.strategicmanagementinsight.com/tools/vrio.html


Simister, P., (2011). *Using Value Chain Analysis to Create Competitive Advantage*


QUESTIONNAIRE
BAMBU Ri CEMENT COMPANY

Dear respondent,

My name is Sheila Akwany and I am a student at the Catholic University of Eastern Africa. I am carrying out a research study on ‘The Effects of Value Chain Management strategies on Competitive Advantage, taking a case study of Bamburi Cement’ and would wish to acquire some information from you with regards to the topic under study. The information provided for this research will be treated as confidential and only used for academic purpose.

Instruction: Kindly respond by ticking in the boxes provided.

SECTION I
RESPONDENT’S PROFILE

1. Respondent’s Gender.
   - [ ] a) Male
   - [ ] b) Female

2. Respondent’s Position
   - [ ] a) Top level Management
   - [ ] b) Middle Level Management
   - [ ] c) Lower level Management
   - [ ] d) Other

3. Name of the department you currently work in?
   - [ ] a) Finance
   - [ ] b) Commercial
   - [ ] c) Human Resources
   - [ ] d) Corporate Communications and Sustainable Development
   - [ ] e) Bamburi Special Products
   - [ ] f) Supply Chain

4. Number of years you have worked at Bamburi Cement?
   - [ ] a) 1 – 11 months
   - [ ] b) 1 – 4 Years
   - [ ] c) 5- 10 Years
   - [ ] d) Over 10 years
5. Level of education

☐ a) Masters ☐ c) Degree
☐ b) Diploma ☐ d) Certificate and lower

SECTION 2

VALUE CHAIN COST REDUCTION STRATEGY

6. In your opinion, what is the biggest cost driver in Bamburi’s Value Chain?

☐ a) Human resource costs
☐ b) Purchase of raw materials
☐ c) Operations
☐ d) Distribution costs

7. To what extent do the following factors serve to cut down on production costs?

In a Likert scale of 1 – 5, where 1 = Negligible extent, 2 = Small extent, 3 = Minimal extent, 4 = Moderate extent and 5 = Great extent, kindly tick according to your observation.

<table>
<thead>
<tr>
<th>Factor</th>
<th>5</th>
<th>4</th>
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</thead>
<tbody>
<tr>
<td>a) Large scale production of cement</td>
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<tr>
<td>b) Use of low cost energy in production</td>
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<td>c) Use of advanced technology</td>
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<td>d) Automation of factory operations</td>
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<td>e) Strict controls on production to elimination waste</td>
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VALUE CHAIN DIFFERENTIATION STRATEGY

8. What is the Bamburi’s main differentiation factor with regards to its products?

☐ a) High product quality
☐ b) Production of green cement
☐ c) Continuous product improvement
☐ d) Specialized Customer support

9. To what extent have the following factors contributed to the success of Bamburi’s differentiating strategy?

In a Likert scale of 1 – 5, where 1 = Negligible extent, 2 = Small extent, 3 = Minimal extent, 4 = Moderate extent and 5 = Great extent, kindly tick according to your observation.

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<tr>
<td>a) Adherence to international quality standards</td>
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<td>b) Specialized customer support systems</td>
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<td>c) Production of green cement</td>
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<td>d) Advanced research and development</td>
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<tr>
<td>e) Use of advanced technology in production</td>
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10. What is the main contributor of Bamburi’s product quality?

☐ a) Use of high quality raw materials
☐ b) Strict quality control
☐ c) Continuous research and development
d) Adherence to international standards

### STRATEGIC ALLIANCE

11. Does Bamburi have any partnerships with distributors?

- [ ] a) Yes
- [ ] b) No

12. What has been the greatest benefit derived from the partnership?

- [ ] a) Extensive market reaches
- [ ] b) Reduced operational costs
- [ ] c) Faster delivery of products to customers
- [ ] d) Not Applicable

13. Does Bamburi have any partnerships with retailers who sell its products?

- [ ] a) Yes
- [ ] b) No

14. What has been the greatest benefit derived from Bamburi’s partnering with its product retailers?

- [ ] a) Feedback from customers
- [ ] b) Ability to provide information on products to customers
- [ ] c) Data on best selling brands
- [ ] d) Opportunities to advertise
- [ ] e) Increased sales margins
15. To what extent have the following aspects of strategic alliance contributed to Bamburi’s large market share?

*In a Likert scale of 1 – 5, where 1 = Negligible extent, 2 = Small extent, 3 = Minimal extent, 4 = Moderate extent and 5 = Great extent, kindly tick according to your observation.*

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<tbody>
<tr>
<td>a) Distributor partnership</td>
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<td>b) Partnerships with retailers</td>
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<td>c) Collaboration with Knowledge partner</td>
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**COMPETITIVE ADVANTAGE**

16. For each of the following statements please indicate by ticking whether you strongly agree (5), agree (4), Tend to agree (3), Disagree (2) or Strongly disagree (1) to the statement

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<tbody>
<tr>
<td>a) Bamburi’s value chain cost reduction strategy has directly contributed to its high profit margin</td>
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<td>b) The company’s large market share is attributed to its high product quality</td>
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<td>c) Strategic partnerships have contributed to Bamburi’s large market share</td>
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<td>d) Bamburi has better customer support systems than its competitors</td>
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<tr>
<td>e) Production of green cement is a key factor in Bamburi’s value chain differentiation strategy</td>
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<tr>
<td>f) Bamburi’s high production capacity has given it a competitive advantage over its competitors</td>
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