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AN EVALUATION OF STRATEGIC RESPONSES TO GAIN COMPETITIVENESS IN CEMENT INDUSTRY: A CASE OF SELECTED CEMENT MANUFACTURING FIRMS IN KENYA

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Abstract

Purpose: The overall purpose of this study was to evaluate the strategic responses to gain competitiveness in cement manufacturing industry.

Methodology: The study employed a descriptive research design. The population for this study was all the employees in all the six firms currently operating in the industry. The target population of the study was all the management staff of the three selected cement manufacturing firms. Questionnaires were used as data collection instruments. Qualitative and quantitative research analysis was used to analysis the data.

Results: The study findings indicated that there was high level of competition between the cement manufacturing companies and hence the companies needed to put in place strategies to counter the competition in order to gain competitive advantage amongst the firms. The study results indicated that there were various strategic responses that were adopted by the cement manufacturing companies in order to gain competitiveness. These strategies included innovation, integration, outsourcing and diversification.

Unique contribution to theory, practice and policy: The study also recommends that the management of the manufacturing firms should carry out a benchmarking activity against the best players in the market as a way of improving their logistics outsourcing practices. This would enable them to achieve undisputed performance of their supply chains

Key words: *Outsourcing, performance, logistics, warehousing*

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1.0INTRODUCTION

1.1 Background of the Study

Companies operating in Kenya's cement industry are inadvertently faced by a myriad of challenges key among them increased competition exacerbated by new entrants, threat of imports and increased capacities coupled with high production costs particularly on energy, imported clinker and transport. Furthermore, Kenya's economic context is largely characterized by high inflation, high interest rates and volatility in currency fluctuations (Barney, 1991).

According to Porter (1998), firms develop competitive strategies to survive and maintain a competitive advantage in the market. In Kenya, cement companies have adopted various competitive strategies in response to sectoral and economic pressures (Nyawira, 2010; & Otido, 2011). Bamburi Cement Limited too has a formal strategy development process that is influenced by external and internal situations (Mwanzia, 2009).

Porter (2008) identifies five forces that bring competition as fierce rivalry, threat to entry, threat to substitutes, power of suppliers and power of buyers; and maintains that understanding the forces that shape industry competition is the starting point for developing strategy. Porter argues that if the forces are intense, no company earns attractive returns on investment and if the forces are benign, many companies are profitable. The configuration of the five forces differs by industry and that a company needs a separate strategy for each distinct industry.

Porter (1980) proposes three different generic strategies: cost leadership, differentiation and focus as the approaches to deal with the five competitive forces and outperform other firms in the industry. The study of Dess and Davis (1984) maintain that firms that pursued one of the pure strategies of low cost, differentiation, or focus perform better than those who were stuck in the middle. The study is consistent with Porter's assertion that a commitment to at least one of the generic strategies will create a defensible position for a firm.

By having a strategy, a firm can efficiently manage costs of operations, effectively execute projects and subsequently have superior market and economic intelligence as well as achieving competitive advantage. Barney (1991) suggests that firms obtain sustained competitive advantages by implementing competitive strategies that exploit their internal strengths, through responding to environmental opportunities, while neutralizing external threats and avoiding internal weaknesses.

Businesses become successful because they possess some advantage relative to their competitors. The two most prominent sources of competitive advantage can be found in the business cost structure and its ability to differentiate the business from competitors (Raduan, Jegak, Haslinda & orientations that enable a firm to sustain performance, especially in the presence of rapid changes in market conditions (Kumar, 2011).During the last few years, the manufacturing industry has undergone a series of changes through financial reforms, advancement of communication and information technologies, globalization of financial services and economic development. Those changes have had a considerable effect on efficiency, productivity change, market structure and performance in the industry (Epetimehin, 2011).

Kim and Mcintoch (2002) assert that rapid technological change, easier entry by foreign competitors, and the accelerating breakdown of traditional industry boundaries subject firms to new, unpredictable competitive forces. Contemporary firms, operating in dynamic market contexts, often deal with these contingencies by implementing strategies that permit quick

reconfiguration and redeployment of assets to deal with environmental change. Manimala (2011) asserted that strategic responses to environmental changes were mainly around improving quality and productivity, reducing costs, restructuring and culture-building, rather than finding partnerships and assistance from across the newly opened boundaries. The findings suggest that competition does have an impact on self-improvements and that the primary impetus for strategy making is from one's own internal strengths than from the environment.

1.2 Statement of the Problem

On average, the cement manufacturing firms are running at about 72.5 % capacity utilization and the industries profitability is expected to dip with average profits of below 10% compared with 15% in the past years. The pressures of costs in production due to currency depreciation and energy costs coupled with stiff competition from local, regional and international players has posed serious challenges to the cement industry (Juma, 2010)

In the cement sector report (http://www.sib.co.ke, 2013), the two leading firms, Bamburi cement and EAPCC have both had their market shares reduce gradually and is projected to maintain that level up to 2015 considering that they have been enjoying significant market share a few years back despite their strong shareholding by Lafarge for Bamburi and Kenya government for EAPCC (http://www.eastafricanportland.com, 2013).

In 2010, Kenya had an annual capacity of 5.1 million tons of cement and yet produced 3.7 million tons during the period translating to capacity utilization of 72.5% compared to global capacity utilization of 80% in the same year (Joachim, 2010).The East African region has a clinker capacity shortfall due to insufficiency of cement grade limestone deposits which will necessitate offshore sourcing of clinker to supplement the domestic production (Cement Sector Report, 2013)

From the foregoing discussion, there was need to understand the strategic responses adopted by the industry players and asses the level of competition, strategic responses adopted and the challenges that the industry has faced.

1.3 Objectives of the Study

The study was guided by the following objectives;-

1. To assess the level of competition in the cement manufacturing industry.
2. To evaluate the strategic responses adopted by the cement manufacturing firms to out-do competition and attain sustainable competitive advantage in the industry.
3. To investigate the challenges faced in the strategic responses to gain competitiveness.

2.0LITERATURE REVIEW

2.1Theoretical Framework

2.1.1Resource Based View Theory

Resource Based-View (RBV) was developed by Penrose (1959) who suggested that a company should be considered as a collection of physical and human resources bound together in an organizational structure. Furthermore, Hafeez *et al*. (2007) classified resources as physical assets and intellectual assets. Physical assets (i.e. plant and equipment) are easily distinguishable due to

their tangible existence (Hafeez *et al*., 2007). Intellectual capital is relevant to the intangible aspect of human resource such as employee skill, knowledge and individual competencies (Hafeez *et al*., 2007). Overall, the RBV addresses two key points (Gottschalk & Solli-Sæther, 2005). First, the RBV indicates a resource should provide economic value and must be currently scarce, difficult to imitate or copy, non-substitutable, and not readily accessible in factor markets to create competitive advantage (McIvor, 2009). Second, resources determine firm performance (Gottschalk & Solli-Sæther, 2005; McIvor, 2009).

Newbert (2007) categorized theoretical approaches into four types: resource heterogeneity, organizing approach, conceptual-level, and dynamic capabilities. The resource heterogeneity approach argues that a specific resource, capability, or core competence controlled by a firm, affects its competitive advantage or performance. The organizing approach tends to indicate firm-level conditions in which the effective exploitation of resources and capabilities is implemented. Scholars utilizing the conceptual-level approach try to investigate if the attributes of a resource identified by Barney (1991) such as value, rareness, and inimitability, can effectively explain performance. The dynamic capabilities approach emphasizes specific resource-level processes influencing on competitive advantage or performance, in which a specific resource interacts with a specific dynamic capability as an independent variable

2.2 Empirical Literature Review

Diversification is one of the corporate strategies employed by firms to gain competitive advantage. Researchers have come up with competing arguments to explain whether a related or unrelated diversification strategy is linked to above average firm performance (Palich, Cardinal, & Miller, 2000). According to resource based view of diversification, firms can exploit synergies arising from resource relatedness (Chatterjee, 1986). Firms are considered to be diversified if they are participating in more than one business. The big single business concentration is putting all firms' eggs in one industry basket. Firms that are strongly positioned in slow- growth industry should use their excess liquidity to diversify. They should diversify into business which can leverage their existing core competences.

Teece (1980) explains that multi-product firms can capture economies of scale better when the production of two or more products depends upon the same proprietary know-how base and when specialized indivisible asset is a common input into the production of two or more products. Bettis, Richard & William (1981) say that strategists have to base their diversifications decisions on the future expectations of the firm. Corporate strategists can make assessments of whether a particular diversification move is capable of increasing shareholder value. A firm that is interested in venturing into any form of diversification could pursue strategies of: entering new market, related diversification, unrelated diversification, divestiture and liquidation, corporate turnaround, retrenchment and restructuring. A firm that exploits activity-cost chain interrelationships can capture the benefits of strategic fit to achieve performance level that is greater than what can be earned pursuing independent strategies.

Firms seek to increase their competitive position in the market place by relying on outside service providers for activities which they view as supplementary to their core business (Bailey & Farrell, 2004). It is generally agreed that if outsourcing is implemented as planned, then it will lead to lower cost operations, increased capacity and productivity and sometimes may lead to

downsizing. Most multinational companies in the cement manufacturing industry outsource their manufacturing activities to developing countries to take advantage of cheap labor and lower taxation regimes existing in these countries. Outsourcing also enables a firm to concentrate on its core competencies and hence increase productivity.

Outsourcing is carried out so that firms attain performance targets in the business using capabilities of more capable suppliers. Today many firms have failed to develop outsourcing strategies for their processes that allow them to compete effectively in the global economy (Gottfredson, Puyear, & Philips, 2005). The guidelines and prescriptions on the outsourcing decisions in the manufacturing context is the classic make-or- buy decisions (Culliton, 1956). Effective outsourcing for an organization involves concentrating on a set of core competencies where it can achieve pre-eminence and outsourcing other processes which are neither critical nor profitable to the firm and retain those the firm has a distinctive capability (Quinn, 1999).

Innovation is a very important source of scale and scope of economies. According to Schumpeter(1934) innovation gives firms temporary monopolies because they have no competitors on the same play field until a firm duplicates the innovation or the products/service. Research and Development (R&D) is part and parcel of innovation which enables the first industry players to spread the fixed costs of R & D over many customers. This gives industry pioneers a competitive edge over new entrants although the latter is likely to incur fewer costs in its R & D because they generally put less effort to legitimize its innovation in the market.

Another innovative approach is product innovation which is different from new product because the latter has different technology which brings out higher benefits than existing products (Tellis, 1998). Competitors are less likely to respond to the introduction of new products by large firms than by small firms due to the fear of retaliatory behavior (Bowman, Douglas, & Hubert, 1995). Empirical evidence suggest that responses to competitive actions tend to be reciprocal i.e. product responses for product action and price responses for price actions (Bowman, Douglas, & Hubert, 1995).

Firms in protected industries will lack incentives to innovate (Martin, 1998) and (Kambhampti, 1996). Most of these firms concentrate on domestic markets which are more profitable. They are protected from international competitive exposure and therefore further erode their incentives to innovate and become competitive internationally. Intensive competition from both local and international arena makes firms to be innovative and efficient in their business processes. According to Chadha (2004) free competition enhances industrial performance, efficiency and productivity because open competitive markets demands optimal allocation of resources and capital investments for the realization and maximization of profits, outputs, welfare and minimization of costs. Competition compels firms to explore new ways to increase their efficiency by extending their reach to new markets at an early stage by shifting certain production activities to reduce costs (Ricupero, 2004).

Vertical integration is adopted by firms in order to position itself in the industry with respect to scope, cost and product differentiation. According to Porter (1985) firms have to consider four types of competitive scope namely, segment scope, vertical scope, geographical scope and industry scope. The linkages between the supplier's value chain and a firm's value chain enhances a firm's competitiveness.

Vertical integration is divided into two parts: Backward vertical integration and forward vertical integration (Fronmueller & Reed, 1996). Firms can reduce its cost through backward vertical integration because they can access correct information regarding supply conditions and prices. This has enabled firms to have efficient production schedules and avoid rents on its supplies. Forward vertical integration on the other hand can provide product differentiation advantages that are difficult to imitate (Harrigan, 1985). This differentiation in turn reduces opportunity cost and cost incurred due to advertising. Therefore vertical integration is the combination of technologically distinct production processes, distribution and logistics, sales and other economic activities within a single firm (Porter , 1987).

3.0 RESEARCH METHODOLOGY

The study employed a descriptive research design. The population for this study was all the employees in all the six firms currently operating in the industry. The target population of the study was all the management staff of the three selected cement manufacturing firms. Questionnaires were used as data collection instruments. Qualitative and quantitative research analysis was used to analysis the data.

4.0 DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 General Information

4.1.1Position in the Firm

The respondents were asked to indicate their positions in the company. The study findings indicated that 17% (9) of the respondents were in top management, while 21% (11) were in middle management and 62% (33) were in lower management. The findings imply that the respondents were aware of the strategic responses the firms are using to gain competitive advantage hence accurate responses.

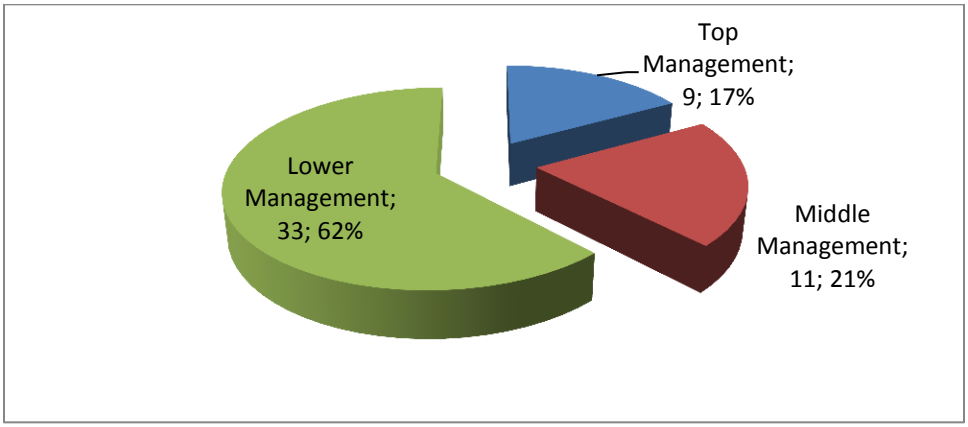

Figure 4.1: Position in the Firm

4.1.2 Department of the Respondents

The respondents were asked to indicate the departments they worked for in the company. Table 4.21 indicates that 28.3% (15) of the respondents were from the production department, 13.2%

(7) from HR administration 11.3% (6) from supply chain, 7.5% (4) from information technology department and 5.7% (3) from finance and audit departments. The results imply that the respondents were well spread in all departments hence the responses were not biased to one organizational department.

Table 4.1: Department of the Respondents

Department	Frequency	Percent
Administration	1	1.9
Audit	3	5.7
Finance	3	5.7
HR-Admin	7	13.2
ICT	4	7.5
Legal	1	1.9
Maintenance	1	1.9
Operations	1	1.9
Procurement	3	5.7
Production	15	28.3
Research & development	3	5.7
Safety, Health & Environment	3	5.7
Strategy	2	3.8
Supply chain	6	11.3
Total	53	100

4.1.3 Years of Service in the Organization

The study findings indicate that majority of the respondents, 58% (31) had worked in the organization for more than 5 years while 30% (16) of the respondents had been in the organization for 3-5 years, 6% (3) of the respondents indicated that they had worked for 1-2 years another 6% (3) had worked in the organization for less than 1 year. Results are presented in Figure 4.2.

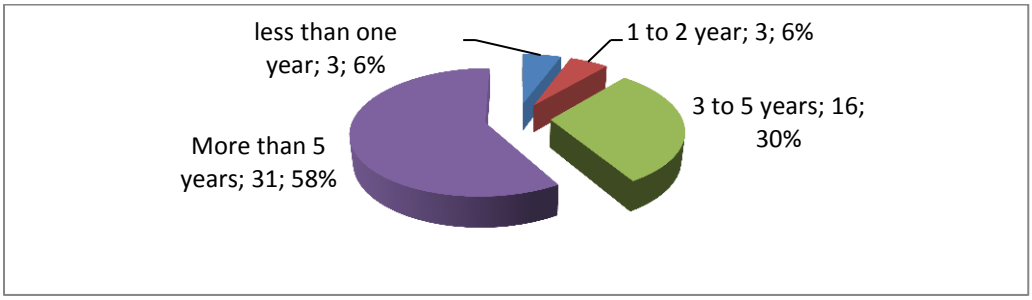

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Figure 4.2: Years of Service

4.1.4 Assessment of Competitiveness

4.1.5Professional qualification of management

The respondents were asked to indicate the main composition in terms of professional qualifications of their management teams. Figure 4.4 indicates that 40% (21) of the respondents indicated engineering, while 26% (14) indicated supply chain, 13% (7) indicated finance. The findings imply that the management team have diverse qualifications and this could have contributed to coming up with strategic responses which will help in gaining competitive advantage among the cement manufacturing industries.

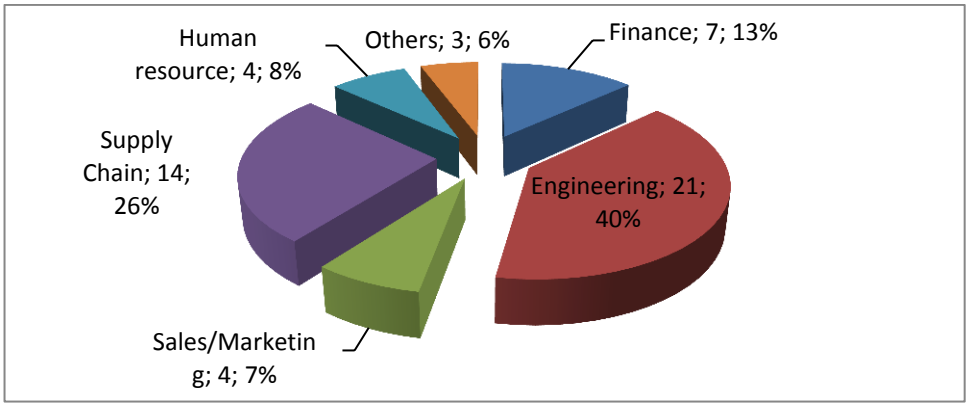

Figure 4.3: Professional Qualification of Management

The respondents were asked to indicate their main competitors. Results from content analysis indicated that most of the respondents from Bamburi Company indicated their main competitor as Portland Company, while respondents from both Portland and Savannah indicated Bamburi as their main competitor.

4.1.6Organizational factors

The study sought to find out the position of different cement manufacturing companies by gauging on their organizational factors. The study findings indicate that 85% of the respondents indicated the market share growth was decreasing, 45% indicated the price/bag of cement was also decreasing and 43% indicated that production levels were increasing. Forty seven point two (47.2%) percent of the respondents indicated that export activities have been decreasing for the last two years, 86.8% indicated that cost of production has been increasing for the last two years, and 66% indicated that corporate social responsibilities activities have been increasing. In addition, 67.9% of the respondents indicated that the environmental protection has been increasing for the last two years, 58.5% indicated that there has been no change in opening of new business markets for the last two years, while 45.3% indicated that recruitment of highly skilled manpower has been increasing and 47.2% indicated that there has been no change in diversification of business to closely related activities. The mean score for responses in this

section was 2.17 which indicate that the competitive advantage has been decreasing which can be explained by the increased levels of competition from other manufacturing companies.

Table 4.3: Organizational Factors

Statement	No change	Decreasing	Increasing	Likert Mean
Market share growth	7.5%	84.9%	7.5%	2
Price/bag of cement	15.1%	45.3%	39.6%	2.25
Production level	41.5%	15.1%	43.4%	2.02
Export activities	32.1%	47.2%	20.8%	1.89
Cost of production	9.4%	3.8%	86.8%	2.77
Corporate social responsibilities activities	28.3%	5.7%	66.0%	2.38
Environmental protection	17.0%	15.1%	67.9%	2.51
Opening of new business markets	58.5%	7.5%	34.0%	1.75
Recruitment of highly skilled manpower	28.3%	26.4%	45.3%	2.17
Diversification of business to closely related activities	47.2%	11.3%	41.5%	1.94
Average	28.5%	26.2%	45.3%	2.17

Table 4.4 presents the position of different cement manufacturing companies by gauging on their organizational factors. Descriptive results indicates that Savannah had the largest market share growth by attracting a mean of 3.0 followed by Bamburi cement and Portland came third with a mean of 2.31. However all the other factors Bamburi was in the lead followed by Portland and Savannah. The findings imply that Bamburi was well established in the market in terms of prices, production level, export activities, cost of production, corporate social responsibilities and environmental protection since it was the first to be started in Kenya.

Table 4.4: Organizational Factors per Company

Organizational factors		N	Mean	Std. Deviation	Std. Error
Market share growth	Portland	32	2.310	0.693	0.122
	Bamburi	16	2.690	0.479	0.120
	Savannah	5	3.000	0.000	0.000
	Total	53	2.490	0.639	0.088
Price/bag of cement	Portland	32	2.470	0.621	0.110
	Bamburi	16	3.000	0.000	0.000
	Savannah	5	1.400	0.894	0.400
	Total	53	2.530	0.696	0.096
Production level	Portland	32	1.880	0.907	0.160
	Bamburi	16	2.630	0.806	0.202
	Savannah	5	1.400	0.548	0.245
	Total	53	2.060	0.929	0.128

Export activities	Portland	32	1.970	0.782	0.138
	Bamburi	16	2.630	0.619	0.155
	Savannah	5	1.600	0.894	0.400
	Total	53	2.130	0.810	0.111
Cost of production	Portland	32	2.560	0.801	0.142
	Bamburi	16	2.810	0.544	0.136
	Savannah	5	2.400	0.894	0.400
	Total	53	2.620	0.740	0.102
Corporate social responsibilities activities	Portland	32	2.280	0.924	0.163
	Bamburi	16	2.380	0.957	0.239
	Savannah	5	1.800	1.095	0.490
	Total	53	2.260	0.944	0.130
Environmental protection	Portland	32	2.440	0.759	0.134
	Bamburi	16	3.000	0.000	0.000
	Savannah	5	1.400	0.894	0.400
	Total	53	2.510	0.775	0.106
Opening of new business markets	Portland	32	1.310	0.644	0.114
	Bamburi	16	2.880	0.500	0.125
	Savannah	5	1.200	0.447	0.200
	Total	53	1.770	0.933	0.128
Recruitment of highly skilled manpower	Portland	32	2.280	0.772	0.136
	Bamburi	16	2.310	0.873	0.218
	Savannah	5	1.200	0.447	0.200
	Total	53	2.190	0.833	0.114
Diversification of business to closely related activities	Portland	32	1.660	0.902	0.159
	Bamburi	16	2.750	0.577	0.144
	Savannah	5	1.200	0.447	0.200
	Total	53	1.940	0.949	0.130

4.1.7Level of Competition

The study sought to find out the nature and level of competition in the cement sector. Table 4.5 shows that majority (88.6%) (47) of the respondents agreed that there was existence of cutthroat competition in the cement industry, 66.1% (35) agreed that it is possible for a factory to close down due to competitor aggression in the market and 81.1% (43) agreed that pricing was a key determinant of competition in the cement sector. Eighty eight point seven (88.7%) (47) percent of the respondents agreed that cement customers can easily swing their preferences to a competitor due to a marginal change in price, 90.5% (48) agreed that factories are continuously investing in modern processing technology in order to outdo their competitors in cost leadership and 54.7% (29) agreed that employee poaching was a prevalent practice in the cement sector.

The mean score for responses in this section was 4.0 which indicate that majority of the respondents agreed that there has been an increase in the level of competition.

Table 4.5: Level of Competition

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly Agree	Mean
There is existence of cutthroat competition in the cement industry	3.8%	3.8%	3.8%	37.7%	50.9%	4.28
It is possible for a factory to close down due to competitor aggression in the market	9.4%	7.5%	17.0%	47.2%	18.9%	3.58
Pricing is a key determinant of competition in the cement sector	0.0%	13.2%	5.7%	37.7%	43.4%	4.11
Cement customers can easily swing their preferences to a competitor due to a marginal change in price	1.9%	3.8%	5.7%	41.5%	47.2%	4.28
Factories are continuously investing in modern processing technology in order to outdo their competitors in cost leadership	1.9%	1.9%	5.7%	54.7%	35.8%	4.21
Employee poaching is a prevalent practice in the cement sector	1.9%	13.2%	30.2%	39.6%	15.1%	3.53
Average	3.2%	7.2%	11.4%	43.1%	35.2%	4.00

Table 4.6 indicates that Bamburi Cement Company had a high level of competition with a mean of 2.7 followed by Portland Company with a mean of 2.09 and Savannah Company was last in facing competition.

Table 4.6: Level of Competition per Company

		N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Competitiveness	Portland	32	2.0906	0.2205	0.03898	1.7	2.4
	Bamburi	16	2.7	0.1633	0.04082	2.5	3
	Savannah	5	2.18	0.43818	0.19596	1.7	2.5
	Total	53	2.283	0.35881	0.04929	1.7	3

4.2Evaluation of strategic responses to attain sustainable competitive advantage

4.3 Innovation and competitiveness

The respondents were asked to indicate the effects of innovation on competitiveness of cement manufacturing companies. The study findings on Table 4.5 indicate that majority (62.3%) (33) agreed that innovation has successfully improved their products life cycle, 45.3% (24) agreed that new products/brands have successfully been introduced in the market through innovation, another 45.3% (24) agreed that innovation has addressed their customer taste in the market and 49% (26) agreed that due to innovativeness, their company products are certified as environmental friendly. The mean score of the responses for this section was 3.26 which show that there was more agreement than disagreement with the statements in the questionnaire.

Table 4.7: Innovation and competitiveness

Statement	Totally disagree	Disagree	Undecided	Agree	Totally agree	Mean
Innovation has successfully improved our products life cycle.	1.9%	20.8%	15.1%	45.3%	17.0%	3.55
New products/brands have successfully been introduced in the market through innovation.	7.5%	35.8%	11.3%	26.4%	18.9%	3.13
Innovation has addressed our customer taste in the market.	5.7%	35.8%	13.2%	32.1%	13.2%	3.11
Due to innovativeness, our company products are certified as environmental friendly.	1.9%	28.3%	20.8%	39.6%	9.4%	3.26
Average	4.3%	30.2%	15.1%	35.9%	14.6%	3.26

Table 4.8 indicates that Bamburi Cement Company had a high level of innovation with a mean of 3.55 followed by Portland Company with a mean of 3.31 and Savannah Company was last in innovativeness with a mean of 2.05.

Table 4.8: Innovation and competitiveness per Company

		N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Innovation	Portland	32	3.3125	1.06066	0.1875	2	5
	Bamburi	16	3.5469	0.38964	0.09741	3	4
	Savannah	5	2.05	0.9083	0.4062	1	3
	Total	53	3.2642	0.97248	0.13358	1	5

4.4 Integration and competitiveness

The respondents were asked to indicate the effect of integration on competitiveness of cement manufacturing companies. The study findings on Table 4.6 indicates that 66% (35) of the

respondents agreed that integrating production services and processes with suppliers requirements assists in clearing production clogs related to poor delivery lead time from suppliers, 94.4% (50) agreed that customer requirements when integrated into the production process helps a firm to become responsive to client needs and subsequently becomes competitive, 73.6% (39) agreed that regular supply chain analysis enables our firm to integrate processes that have duplicated functions and activities and 77.4% (41) of the respondents agreed that integration was a method of achieving competitiveness if a firm is able to control both upstream and downstream activities. The mean score of the responses for this section was 3.91 which show that there was more agreement than disagreement with the statements in the questionnaire.

Table 4.9: Integration and competitiveness

Statement	Totally disagree	Disagree	Undecided	Agree	Totally agree	Mean
Integrating production services and processes with suppliers requirements assists in clearing production clogs related to poor delivery lead time from suppliers	1.9%	17.0%	15.1%	56.6%	9.4%	3.55
Customer requirements when integrated into the production process helps a firm to become responsive to client needs and subsequently becomes competitive	0.0%	3.8%	1.9%	62.3%	32.1%	4.23
Regular supply chain analysis enables our firm to integrate processes that have duplicated functions and activities	0.0%	11.3%	15.1%	47.2%	26.4%	3.89
Integration is a method of achieving competitiveness if a firm is able to control both upstream and downstream activities	1.9%	3.8%	17.0%	49.1%	28.3%	3.98
Average	1.0%	9.0%	12.3%	53.8%	24.1%	3.91

Table 4.10 indicates that Bamburi Cement Company had a high level of integration with a mean of 4.53 followed by Portland Company with a mean of 3.71 and Savannah Company was last in integration with a mean of 3.2.

Table 4.10: Integration and competitiveness per company

		N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Integration	Portland	32	3.7109	0.33062	0.05845	3	4
	Bamburi	16	4.5313	0.25617	0.06404	4.25	5
	Savannah	5	3.2	0.95851	0.42866	2.5	4.25
	Total	53	3.9104	0.58854	0.08084	2.5	5

Outsourcing and Competitiveness

The respondents were asked to indicate the effect of outsourcing on competitiveness of cement manufacturing companies. Table 4.7 indicates that majority (66%) (35) of the respondents disagreed that outsourcing has reduced staffing and administrative costs related to their company expenditures, 58.5% (31) disagreed that outsourcing some of the company services has improved their attainment of production level/target and 56.6% (30) disagreed that outsourcing has enabled their company access unlimited expert advice. The mean score of the responses for this section was 2.44 which show that there was more disagreement than agreement with the statements in the questionnaire.

Table 4.11: Outsourcing and competitiveness

Statement	Totally disagree	Disagree	Undecided	Agree	Totally agree	Mean
Outsourcing has reduced staffing and administrative costs related to our company expenditures.	30.2%	35.8%	20.8%	5.7%	7.5%	2.25
Outsourcing some of our company services has improved our attainment of production level/target.	18.9%	39.6%	15.1%	24.5%	1.9%	2.51
Outsourcing has enabled our company access unlimited expert advice.	18.9%	37.7%	18.9%	18.9%	5.7%	2.55
Average	22.7%	37.7%	18.3%	16.4%	5.0%	2.44

Table 4.12 indicates that Bamburi Cement Company had a high level of outsourcing its activities with a mean of 2.79 followed by Portland Company with a mean of 2.41 and Savannah Company was last in outsourcing with a mean of 1.4.

Table 4.12: Outsourcing and competitiveness per company

		N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Outsourcing	Portland	32	2.4169	0.45622	0.08065	2	3

Bamburi	16	2.7919	1.50526	0.37631	1	5
Savannah	5	1.4	0.43526	0.19465	1	2
Total	53	2.4342	0.96677	0.1328	1	5

Diversification and Competitiveness

The respondents were asked to indicate the effect of diversification on competitiveness of cement manufacturing companies. Table 4.8 indicates that majority (54.7%) (29) of the respondents disagreed that their company product diversification strategy had attracted many customers' interests/tastes and improved sales, 62.3% (33) agreed that their company product diversification initiative had led to expansion of our company market share and 52.8% (28) agreed that their company product diversification initiative had improved their customer portfolio/profile. The mean score of the responses for this section was 2.59 which show that there was more disagreement than agreement with the statements in the questionnaire.

Table 4.13: Diversification and competitiveness

Statement	Totally disagree	Disagree	Undecided	Agree	Totally agree	Mean
Our company product diversification strategy has attracted many customers' interests/tastes and improved sales.	11.3%	43.4%	18.9%	24.5%	1.9%	2.62
Our company product diversification initiative has led to expansion of our company market share.	5.7%	56.6%	17.0%	18.9%	1.9%	2.55
Our company product diversification initiative has improved our customer portfolio/profile.	7.5%	45.3%	26.4%	20.8%	0.0%	2.6
Average	8.2%	48.4%	20.8%	21.4%	1.3%	2.59

Table 4.14 indicates that Bamburi Cement Company was in the lead in diversification of products with a mean of 3.72 followed by Portland Company with a mean of 2.23 and Savannah Company was last in diversification with a mean of 1.2.

Table 4.14: Diversification and competitiveness per company

		N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Diversification	Portland	32	2.2397	0.38107	0.06736	1.67	3
	Bamburi	16	3.7281	0.44269	0.11067	3	4.33
	Savannah	5	1.2	0.29908	0.13375	1	1.67
	Total	53	2.5909	0.89991	0.12361	1	4.33

4.5Challenges of strategic responses to gain competitiveness

The respondents were asked to indicate the extent to which various factors were a source of challenge to their organizations. Table 4.15 indicates that majority (64.2%)(34) of the respondents indicated that threats of new entrants was extremely challenging, while 32.1% (17) indicated threat of substitutes was challenging and 49.1% (26) indicated that bargaining power of suppliers was challenging. In addition, 34% (18) of the respondents indicated that bargaining power of customers was most challenging, 28.3% (15) indicated that intensity of rivalry was extremely challenging and 35.8% (19) indicated that product/service differentiation was less challenging. Thirty seven point seven percent of the respondents indicated that cost leadership was extremely challenging, 43.4% (23) indicated that market segmentation was the most challenging factor and 28.7% (16) of the respondents indicated that access to raw materials was challenging. The mean score for this response was 3.35 which indicates that majority of the respondents indicated that most of the factors in the questionnaire were challenging.

Table 4.15: Challenges of Strategic Responses to Gain Competitiveness

Statement	Least Challenging	Less Challenging	Challenging	Most Challenging	Extremely Challenging	Mean
Threats of new entrants	1.9%	1.9%	17.0%	15.1%	64.2%	4.38
Threat of substitutes	15.1%	22.6%	32.1%	15.1%	15.1%	2.92
Bargaining power of suppliers	1.9%	22.6%	49.1%	18.9%	7.5%	3.08
Bargaining power of customers	1.9%	18.9%	32.1%	34.0%	13.2%	3.38
Intensity of rivalry	1.9%	11.3%	32.1%	26.4%	28.3%	3.68
Product/service differentiation	5.7%	35.8%	26.4%	28.3%	3.8%	2.89
Cost leadership	1.9%	5.7%	28.3%	26.4%	37.7%	3.92
Market segmentation	0.0%	5.7%	30.2%	43.4%	20.8%	3.79
Access to raw materials	41.5%	28.3%	11.3%	13.2%	5.7%	2.13
Average	8.0%	17.0%	28.7%	24.5%	21.8%	3.35

Results on Table 4.16 illustrates that Bamburi cement company faced the most challenges as it attracted a mean of 3.90, followed by Portland company with a mean of 3.14 and Savannah had little challenges as it was new in the industry with a mean of 2.88.

Table 4.16: Challenges of Strategic Responses to Gain Competitiveness per company

Company	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Portland	32	3.1484	0.30759	0.05438	2.44	3.56
Bamburi	16	3.9044	0.37845	0.09461	3.67	5
Savannah	5	2.888	0.71949	0.32177	2.22	3.67
Total	53	3.3521	0.5269	0.07238	2.22	5

4.6 Correlation between Competitiveness, Innovation, Integration, Outsourcing and 4.7Diversification

Correlation results in Table 4.17 indicated that the correlation between competitiveness and independent variables (innovation, integration, outsourcing and diversification) was positive and significant. The results correlation between competitiveness and innovation was positive and significant (R=0.938, p value =0.000). The results correlation between competitiveness and integration was positive and significant (R=0. 881, p value =0.000). The results correlation between competitiveness and outsourcing was positive and significant (R=0.968, p value =0.000). The results correlation between competitiveness and diversification was positive and significant (R=0.909, p value =0.000).

Table 4.17: Bivariate Correlations

Variable		competitiveness	innovation	integration	outsourcing	Diversification
Competitiveness	Pearson Correlation	1				
	Sig. (2-tailed)					
Innovation	Pearson Correlation	0.938	1			
	Sig. (2-tailed)	0.000				
Integration	Pearson Correlation	0.881	0.844	1		
	Sig. (2-tailed)	0.000	0.000			
Outsourcing	Pearson Correlation	0.968	0.900	0.870	1	
	Sig. (2-tailed)	0.000	0.000	0.000		
Diversification	Pearson Correlation	0.909	0.834	0.740	0.898	1
	Sig. (2-tailed)	0.000	0.000	0.000	0.000	

4.8 Regression Analysis between Competitiveness, Innovation, Integration, Outsourcing and Diversification

In order to establish the statistical significance of the independent variables on the dependent variable (Competitiveness) regression analysis was employed. The regression equation took the following form.

$Y = \alpha + \beta_1\chi_1 + \beta_2\chi_2 + \beta_3\chi_3 + \beta_4\chi_4 + \varepsilon$

Where: Y = Competitiveness;

α = the Y intercept;

χ_1 = Innovation;

χ_2 = Integration;

χ_3 = Outsourcing;

χ_4 = Diversification;

ϵ = error term which is assumed to be normal in distribution with mean zero and variance (σ^2).

In the model, β_0 = the constant term while the coefficient $\beta_i i = 1....4$ was used to measure the sensitivity of the dependent variables (Y) to unit change in the predictor variables. Є is the error term which captures the unexplained variations in the model.

Table 4.18 shows that the coefficient of determination also called the R square is 96.8%. This means that the combined effect of the predictor variables (innovation, integration, outsourcing and diversification) explains 96.8% of the variations in competitiveness in the cement manufacturing companies in Kenya. The correlation coefficient of 98.4% indicates that the combined effects of the predictor variables have a strong and positive correlation with competitiveness. This also meant that a change in the drivers of competitiveness has a strong and a positive effect on competitiveness gain in cement manufacturing companies in Kenya.

Table 4.18: Regression Model Fitness

Indicator	Coefficient
R(Pearson's correlation)	0.984
R Square (Coefficient of determination)	0.968
Std. Error of the Estimate	0.06676

Analysis of variance (ANOVA) on Table 4.19 shows that the combined effect innovation, integration, outsourcing and diversification was statistically significant in explaining changes in competitiveness in cement manufacturing companies. This is demonstrated by a p value of 0.000 which is less than the acceptance critical value of 0.05. The results indicated that the overall model was significant, that is, the independent variables were good joint explanatory variables/determinants for competitiveness (F=363.741, P value =0.000).

Table 4.19: Analysis of Variance (ANOVA)

Indicator	Sum of Squares	df	Mean Square	F	Sig.
Regression	6.481	4	1.62	363.471	0.000
Residual	0.214	48	0.004		
Total	6.695	52			

Table 4.20 displays the regression coefficients of the independent variables. The results reveal that innovation, integration, outsourcing and diversification are statistically significant in explaining competitiveness in cement manufacturing companies.

Regression results in Table 4.20 indicated that the relationship between innovation and competitiveness was positive and significant (b1= 0.105, p value, 0.000). This implies that an increase in company innovativeness by 1 unit leads to an increase in competitiveness by 0.105 units. Regression results further indicated that the relationship between integration and competitiveness was positive and significant (b1=0.073, p value, 0.040). This implies that an increase in company integration by 1 unit leads to improved competitiveness by 0.073 units.

Results further indicated that the relationship between outsourcing and competitiveness was positive and significant (b1= 0.162, p value, 0.000). This implies that an increase in outsourcing activities by 1 unit leads to an increase in competitiveness by 0.162 units. Finally the results revealed that diversification and competitiveness had a positive and significant relationship (b1= 0.076, p value, 0.003). This implies that an increase in product diversification by 1 unit leads to an increase in competitiveness by 0.076 units.

Table 4.20: Regression Coefficients

Variable	Beta	Std. Error	T	Sig.
Constant	1.065	0.092	11.533	0.000
Innovation	0.105	0.023	4.505	0.000
Integration	0.073	0.034	2.116	0.040
Outsourcing	0.162	0.032	5.027	0.000
Diversification	0.076	0.024	3.144	0.003

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

The following can be concluded from the research findings:-

There is high level of competition between the cement manufacturing companies and hence the companies need to put in place strategies to counter the competition in order to gain competitive advantage amongst the companies.

It was also possible to conclude that there were various strategic responses that were adopted by the cement manufacturing companies in order to gain competitiveness. These strategies included innovation, integration, outsourcing and diversification. The study concluded that innovation,

integration, outsourcing and diversification were statistically significant in explaining competitiveness in the cement manufacturing firms.

The study further concluded that the cement manufacturing companies faced various challenges in strategic responses implementation to gain competitiveness. This includes challenges such as threat of new entrants, threat of substitutes, bargaining power of suppliers, bargaining power of customers, intensity of rivalry, product/service differentiation, cost leadership, market segmentation and access to raw materials.

5.2 Recommendations

Based on the results, findings and conclusions the following recommendations have been deciphered. The study recommends that Managers at cement manufacturing companies can use the results to craft strategies on which areas to improve and which areas to excel at. For instance, the managers may highlight the toughest challenges so that they may find ways to improve on the drivers of the weaknesses and also identify the drivers of Strengths with an intention to excel in these areas.

It is also suggested that since the employee perceptions were that formation of strategic responses have brought about competitive advantages, it may be important to consider investing in the area of change management with a hope of building and enjoying further competitive advantages. This investment would take the form of more human and financial resources allocated to change management by adopting the new strategies.

The study further recommends that the management should put strategic policies to encourage all the employees embrace change and don't resist to ensure the transition is smooth thus the management should commit itself in making the employees part of the change hence increasing competitiveness of the cement manufacturing companies.

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