# EFFECTS OF STRATEGIC RESPONSES ON COMPETITIVENESS AND SUSTAINABILITY IN CEMENT MANUFACTURING FIRMS IN KENYA

# Nyasimi S. Zaile

Master of Business Administration, Jomo Kenyatta University of Agriculture and Technology, Kenya

## Dr. Robert Gitau

Lecturer, Jomo Kenyatta University of Agriculture and Technology, Kenya

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## **ABSTRACT**

The overall purpose of this study was to evaluate the strategic responses to gain sustainability and competitiveness in cement manufacturing industry. The study used three selected cement firms: East African Portland Company (EAPCC), Bamburi and Savannah Cement Company. The study was guided by the following specific research objectives: To evaluate how effective innovation strategy adopted by the cement manufacturing firms to curb competition and attain sustainable competitive advantage in the industry, to assess the level of integration strategy in the cement manufacturing industry and how it has impacted the sustainability of the firms. The

target population for this study was all the management staff in the three selected firms. The study will employ a descriptive research design. Questionnaires were used as data collection instruments. Oualitative and quantitative research analysis was used to analyze the data. The findings provide useful information that may serve cement manufacturing companies to strategically position themselves in the competitive market, thereby improving their overall sales as well as market share. It can equally serve as decision guideline to senior managers while making meaningful contributions to their companies.

**Key Words:** Strategic Responses, Competitiveness, and Sustainability

## INTRODUCTION

Strategy is a high level plan to achieve one or more goals under conditions of uncertainty, Banda (2009). Strategy is important because the resources available to achieve these goals are usually limited. According to Boyan (2003), strategy as a system of finding, formulating, and developing a doctrine that will ensure long-term success if followed faithfully. This paper critically examined the role of strategy in improving organizational competitiveness in cement manufacturing firms.

The East African Portland Cement Company started as a trading company importing cement mainly from England for early construction work in East Africa. It was formed by Blue Circle Industries United Kingdom. It was not until February 1933 that the Company was incorporated in Kenya with the first factory in Nairobi's Industrial Area. In the last few years, EAPCC has greatly expanded its production capacity. With the introduction of Mill No. 5 and the embrace of Coal energy, the Company can presently produce over 1.3 million tonnes of cement per annum at reduced cost.

Bamburi Cement Limited was founded in 1951 by Felix Mandl - a director of Cementia Holding A.G. Zurich. Cementia later went into partnership with Blue Circle PLC (UK). In 1989, Lafarge, the world's largest building materials group, acquired Cementia, and thus became an equal shareholder with Blue Circle. Lafarge bought Blue Circle in 2001 to become the largest building materials company in the world and Bamburi Cement Limited principle shareholder. Today Bamburi Cement is a member of LafargeHolcim, the new leader in building materials industry, following the merger in July 2015 of Lafarge and Holcim.

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Savannah Cement is the newest entrant into the cement market in Kenya and has completed the construction and commissioning of a state of the art, Eco-friendly cement grinding plant with a capacity of 1.5 million tons a year. The plant is strategically placed near Nairobi, which accounts for 50% of Kenya's cement consumption. Savannah Cement is not only designed to make the best use of green technology, but is also focused on revolutionizing environmental management in the regional Cement Industry.

Companies operating in Kenya's cement industry inadvertently face 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.

## STATEMENT OF THE PROBLEM

On average, the cement manufacturing firms are running at about 72.5 % capacity utilization and the profitability of the industry is expected to dip with average profits of below 10% compared with 15% in the past years (Seboru, 2013). 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).

According to cement sector report, 2015 the two leading firms, Bamburi cement and EAPCC have both had their market shares decline gradually and experts have projected to maintain that level up to 2016 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 (EAPCC,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 where capacity is underutilized due to competition, there is need to assess the level of competition, the strategic responses adopted to gain competitiveness with sustainability and the challenges that the industry has faced in this quest.

## **GENERAL OBJECTIVE**

The main aim of this study was to evaluate the effects of strategic responses on competitiveness and sustainability in the cement manufacturing industry.

## **SPECIFIC OBJECTIVES**

- 1. To evaluate effectiveness of the innovation strategy adopted by the cement manufacturing firms to curb competition and attain sustainable competitive advantage in the industry.
- 2. To establish the level of integration strategy in the cement manufacturing industry and how it has impacted on the sustainability of the firms.

## LITERATURE REVIEW

# **Resource Based View Theory**

Resource Based-View (RBV) is 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 skills, knowledge and individual competencies (Hafeez et al., 2007).

Generally, the RBV addresses two key points (Gottschalk and Solli-Sæther, 2005). First, the RBV indicates that 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 and Solli-Sæther, 2005; McIvor, 2009).

Competitiveness of a firm is the ability of a firm to do better than comparable firms in sales, market shares or profitability (Berger and Humphrey, 2007). Cook and Bredahl (1991) argue that competitiveness can be from a choice of geographical area, product or time. Lynch (2004) explains that competitiveness can be interpreted as the ability of firms to cope with structural change. Competitiveness can be looked at along two levels; competitiveness along national economies (macroeconomics level) and economies along firms (microeconomic level). Competitiveness can also be described as the ability of firms to stay competitive and their ability to improve or protect their position in relation to competitors who are in the same market.

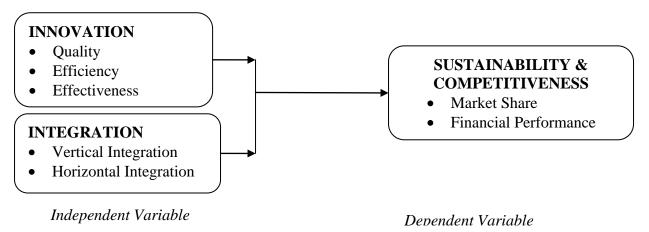
# **The Market-Based View Theory**

The Market-Based View (MBV) of strategy argues that industry factors and external market orientation are the primary determinants of firm performance (Bain 1968; Caves & Porter 1977; Peteraf & Bergen 2003; Porter 1980, 1985, 1996). The sources of value for the firm are embedded in the competitive situation characterizing its end-product strategic position. The strategic position is a firm's unique set of activities that are different from their rivals. Alternatively, the strategic position of a firm is defined by how it performs similar activities to other firms, but in very different ways. In this perspective, a firm's profitability or performance

are determined solely by the structure and competitive dynamics of the industry within which it operates (Schendel 1994). The Market-Based View (MBV) includes the positioning school of theories of strategy and theories developed in the industrial organisation economics phase of Hoskisson's account of the development of strategic thinking (of which Porter's is one example) (Hoskisson et al. 1999; Mintzberg et al. 1998; Porter 1980). During this phase, the focus was on the firm's environment and external factors. Researchers observed that the firm's performance was significantly dependent on the industry environment. They viewed strategy in the context of the industry as a whole and the position of the firm in the market relative to its competitors.

A firm's relative position within its industry determines whether a firm's profitability is above or below the industry average (Porter , 1985). The fundamental basis of average profitability in the long run is sustainable competitive advantage. The two basic types of competitive advantage a firm can possess: low cost or differentiation. When combined with the scope of activities for which a firm seeks to achieve them, the competitive advantages lead to three generic strategies for achieving above average performance in an industry: cost leadership, differentiation, and focus. The focus strategy has two variants, cost focus and differentiation focus(Porter , 1985).

# **CONCEPTUAL FRAMEWORK**



# **Innovation Strategies and Competitiveness**

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 or 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.

Firms in protected industries will lack incentives to innovate (Martin, 1998; 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 International Academic Journals

innovate and become competitive internationally. Intensive competition from both local and international arena makes firms to be innovative and efficient in their business processes. 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).

According to Mulgan and Albury (2003)successful innovation is the creation and implementation of new process, products, services and methods of delivery which result in significant improvements in outcomes: efficiency, effectiveness and quality. Product innovation is therefore one of the strategic means of generating revenue to the business. On the other hand, process innovation is a sure way of safeguarding and improving the product quality and saving costs. Therefore, both product and processes innovation are regarded as critical for sustainable business growth since they enable firms to increase their brands in the market and hence create competitive advantage for the business. Technology innovation is also critical to the business since it allows information to flow fast to the intended persons.

# **Integration and Competitiveness**

Integration is adopted by firms in order to position itself in the industry with respect to scope, cost and product differentiation Porter (1985). 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 and 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.

Sehgal (2011) showed that supply chain integration enhances capabilities and thereby gains competitive advantages. Supply chain reduces costs and enhances capabilities to efficiently use capital while supporting operational flexibility and agility. Vertically integrated firms allow ease of automation, standardization, simplification of processes and quality improvement. Also vertically integrated manufacturing and marketing activities results in greater design quality, product performance and conformance attributes. Vertically integrated firms can also control business processes which lead to both volume and feature flexibility which enhances higher output.

## RESEARCH METHODOLOGY

The study adopted descriptive research which reveals the facts in the manner they are in the field such that if another researcher goes to the same field the outcome will be similar. It also helps in formulation of objectives, design of methods of data collection and administering of questionnaires. The population emprised all the employees of the three cement manufacturing firms; Bamburi, EAPCC and Savannah and according to the records from human resource department the total employees are 540, 1342 and 144 respectively. The target population for this study was all the management staff of the three cement manufacturing firms. The choice of the selected firms is based on the fact EAPCC is the oldest cement firm (1933), Bamburi cement is the second oldest firm (1958) and Savannah cement entered the market in the last three years (2012). These firms also operate in Machakos County. According to the records available from human resource departments of the three firms; Bamburi, EAPCC and Savannah, the total management staff are 65, 132 and 23 respectively. This was therefore the target population.

Purposive and stratified sampling techniques were used in this study since only staffs that are relevant and well informed in strategic issues of the firms will be selected as the target population of this study (Mugenda and Mugenda, 2003). From the records available from human resource departments of the three firms; Bamburi, EAPCC and Savannah, the total management staff are 65, 132 and 23 respectively. These staff are distributed across all the departments in the organizations and are at three cadre levels namely, top management, middle management and lower management level. Their distribution and levels are as shown in table 1 below.

The target population was 220 and the sample size is 30% of the target population equivalent to 66 management staff from the three firms. According to Kothari (2003), 30% can be used when the population of the study is not large. Stratified random sampling technique will be employed to identify the cases in the sample from across all the departments of the firms. The criteria for stratified random sampling are the cadre level and the functional departments existing in the firms (Mugenda and Mugenda, 2003).

**Table 1: Sample Population** 

Firm	Top management	Mid management	Lower management	Population	Sample (30% population	Size of
Bamburi	11	22	32	65	20	
<b>EAPCC</b>	19	38	75	132	40	
Savannah	3	6	13	23	6	
Total	33	66	120	220	66	

The study used questionnaires to collect data. The questionnaires contained open and closed ended questions. Statistical Package for Social Sciences (SPSS) was used to draw inferences from the coded data. This also included descriptive and inferential statistics. The descriptive statistics included frequency distribution tables, histograms, pie charts and percentages.

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.

$$Y = \alpha + \beta_1 \chi_1 + \beta_2 \chi_2 + \varepsilon$$

Where: Y = Competitiveness;

 $\alpha$  = the Y intercept;

 $\chi_1$  = Innovation;

 $\chi_2$ = Integration;

 $\epsilon$  = error term which is assumed to be normal in distribution with mean zero and variance ( $\sigma^2$ ).

In the model,  $\beta_0$  = the constant term while the coefficient  $\beta_i i=1....2$  was used to measure the sensitivity of the dependent variables (Y) to unit change in the predictor variables.  $\epsilon$  is the error term which captures the unexplained variations in the model.

## RESEARCH FINDINGS AND DISCUSSIONS

## **General Information**

On the positions in the company, majority 62% (33) were in lower management followed by 21% (11) in middle management. 28.3% (15) were based in the production department, 13.2% (7) in HR Administration 11.3% (6) from Supply Chain, 7.5% (4) from Information Technology Department and 5.7% (3) from Finance and Audit Departments. On the period worked, 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.

## **Professional 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 and 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. It also shows that cement manufacturing firms employ more engineers because of the nature and sophistication of its manufacturing processes.

# **Main Competitors**

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. This therefore means that Bamburi is the most competitive firm followed by EAPCC and Savannah is least competitive amongst the firms in this study. This agrees with the argument of Car (1993) that firms that solely rely on cost leadership strategies in response to competition lose market share.

# **Organizational 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% (45) of the respondents indicated the market share growth was decreasing, 45% (23) indicated the price or bag of cement was also decreasing and 43% (23) indicated that production levels were increasing. 47.2% (25) of the respondents indicated that export activities have been decreasing for the last two years, 86.8% (46) indicated that cost of production has been increasing for the last two years, and 66% (35) indicated that corporate social responsibilities activities have been increasing.

In addition, 67.9% (36) of the respondents indicated that the environmental protection has been increasing for the last two years, 58.5% (31) indicated that there has been no change in opening of new business markets for the last two years, while 45.3% (24) indicated that recruitment of highly skilled manpower has been increasing and 47.2% (25) indicated that there has been no change in diversification of business to closely related activities. On the average the responses indicate that most of the activities analyzed were increasing which reflect the level of competitiveness obtaining in the industry.

Descriptive results indicate 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 market share growth, production level, export activities, cost of production, corporate social responsibilities and environmental protection. This means that Bamburi has responded well to increased competition by maximizing its internal capabilities which agrees with Aosa (1992) who argued that strategic problems in a firm can be solved by creating a fit between internal and external environment.

# **Level of Competition**

The study sought to find out the nature and level of competition in the cement sector. Results show 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. 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 indicates that majority of the respondents agreed that there has been an increase in the level of competition.

The study findings agree with those in Nyawira (2010 and Otido (2011) who asserted that cement companies in Kenya have adopted various competitive strategies in response to sectoral and economic pressures. The findings agree with those in Doz and Hamel (1998) who argued that due to increased competition and turbulent environments, firms have been forced to be more innovative, efficient and flexible since acquisition, research and development alone cannot enable a firm to increase its market share.

# **Innovation and Competitiveness**

The respondents were asked to indicate the effects of innovation on competitiveness of cement manufacturing companies. The study findings on Table 4.6 below indicate that majority, 62.3% (33), agreed that innovation has successfully improved their products' life cycle; 45.3% (24) agreed that new products or 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.

## **Integration and Competitiveness**

The respondents were asked to indicate the effect of integration on competitiveness of cement manufacturing companies. The study findings on Table 4.8 below indicate 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.

Results indicate 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.

# Correlation between Competitiveness, Innovation and Integration

Correlation results in table 2 indicate that the correlation between competitiveness and independent variables (innovation, integration, outsourcing and diversification) was positive and significant. The results on 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).

**Table 2: Bi-variate Correlations** 

Variable		competitiveness	innovation	integration
Competitiveness	Pearson Correlation Sig. (2-tailed)	1		
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	

# Regression Analysis between Competitiveness, Innovation and Integration

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:

$$Y = \alpha + \beta_1 \chi_1 + \beta_2 \chi_2 + \varepsilon$$

Where: Y = Competitiveness;  $\alpha = the Y intercept$ ;

 $\chi_1 = Innovation;$ 

 $\chi_2$  = Integration;

 $\epsilon$  = error term which is assumed to be normal in distribution with mean zero and variance ( $\sigma^2$ ).

In the model,  $\beta_0$  = the constant term while the coefficient  $\beta_i i=1....2$  was used to measure the sensitivity of the dependent variables (Y) to unit change in the predictor variables.  $\epsilon$  is the error term which captures the unexplained variations in the model.

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**Table 3: 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

Table 3 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 and integration) 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: Analysis of Variance (ANOVA)** 

	Sum	of			
Indicator	Squares	df	Mean Square	F	Sig.
Regression	6.481	2	3.2405	757.126	0
Residual	0.214	50	0.00428		
Total	6.695	52			

Analysis of variance (ANOVA) on Table 4.16 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 or determinants for competitiveness (F=363.741, p-value =0.000).

The results reveal that innovation, integration, outsourcing and diversification are statistically significant in explaining competitiveness in cement manufacturing companies. Regression results 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.

**Table 5: 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

## **SUMMARY OF FINDINGS**

The study findings agree with those in Nyawira (2010 and Otido (2011) who asserted that cement companies in Kenya have adopted various competitive strategies in response to sectoral and economic pressures. The findings agree with those in Doz and Hamel (1998) who argued that due to increased competition and turbulent environments, firms have been forced to be more innovative, efficient and flexible since acquisition, research and development alone cannot enable a firm to increase its market share.

The second objective of the study was to evaluate the strategic responses adopted by the cement manufacturing firms to out-do competition and attain sustainable competitive advantage in the industry. The findings agree with those in Mahmood and Harrison (2001) who argued that competitiveness depends on the capacity of domestic industries to innovate and upgrade. Also according to Porter (1990) competitiveness depends on strong domestic rivals, aggressive home-based suppliers and demanding home markets. Domestic firms should therefore adopt productive and efficient processes, faster innovations and optimal labor-capital-resource combinations in its production processes. The findings agree with those in Harrigan (1987) and Doz and Hamel (1998) who argued that due to increased competition and turbulent environments, firms have been forced to be more innovative, efficient and flexible since acquisition, research and development alone cannot enable a firm to increase its market share. It is therefore becoming increasingly vital for firms to adopt more flexible structures to internal research and development.

# **Integration and Competitiveness**

The findings agree with those in Prahalad and Hamel (1990) who said that vertical integration into relevant businesses helps firms to acquire complementary competencies. Sehgal (2011) showed that supply chain integration enhances capabilities and thereby gains competitive advantages. Supply chain reduces costs and enhances capabilities to efficiently use capital while supporting operational flexibility and agility.

Vertically integrated firms allow ease of automation, standardization, simplification of processes and quality improvement. Also vertically integrated manufacturing and marketing activities result in greater design quality, product performance and conformance attributes. Vertically International Academic Journals

integrated firms can also control business processes which lead to both volume and feature flexibility thus enhancing higher throughput.

The findings agree with those in Doz and Hamel (1998) who argued that due to increased competition and turbulent environments, firms have been forced to be more innovative, efficient and flexible since acquisition, research and development alone cannot enable a firm to increase its market share. It is therefore becoming increasingly vital for firms to adopt more flexible structures to internal research and development. Currently, firms are forming alliances and partnership with their suppliers, customers and even their competitors.

## **CONCLUSIONS**

Various conclusions can be made from the research findings. Firstly, there is high level of competition between the cement manufacturing companies and hence the firms need to put in place strategies to counter the competition in order to gain competitive advantage. Amongst the three firms analyzed, Bamburi cement was seen to be most competitive followed by EAPCC and Savannah respectively. However, Savannah cement seems to realize significant market growth compared with the two and this can be possible because it entered the industry just two years ago and has eaten into the market share of the other players.

Secondly, it was concluded 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.

## RECOMMENDATIONS

Based on the results, findings and conclusions the following recommendations have been made. The study recommends that Managers at cement manufacturing companies can use the results to craft strategies on which areas to improve on 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. They also need to partner with county governments to foster their business opportunities and mitigate against scarcity of raw materials.

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