STRATEGIC RESPONSES TO ENVIRONMENTAL CHANGES BY VEGETABLE OIL PROCESSING AND REFINING FIRMS IN KENYA

BY

BENEDICT OTIENO OMONDI

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DECLARATION

This Research Project is my original work and has not been submitted for examination in any other University.

Signed.. Date ..12/11/12........................

BENEDICT OTIENO OMONDI

D61/71050/2009

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

Signed.. Date ...12-11-2012..............................

SUPERVISOR:

DR. JOHN YABS

SENIOR LECTURER,

DEPARTMENT OF BUSINESS ADMINISTRATION,

SCHOOL OF BUSINESS, UNIVERSITY OF NAIROBI

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This research project is dedicated to my wife Jennifer and our children: Alvan, Bilha and Ezra.

ABSTRACT

Many organizations are influenced by major changes in their environment, and thus, those events and developments external to the organizations can affect their ability to attain the strategic objective as well as strategic choice considered open to the organization. This study sought to establish the strategic responses to environmental changes by vegetable oil processing and refining firms in Kenya. To do this, the study was guided by three objectives: to identify the major environmental challenges influencing the operations of the vegetable oil processing and refining firms in Kenya; to establish the strategic responses adopted by vegetable oil processing and refining firms in Kenya; and to determine the challenges that the vegetable oil processing and refining firms in Kenya are facing in responding to the environmental changes.

The study adopted cross-sectional survey design with the target population comprising of all vegetable oil processing and refining firms in Kenya. Since the population was considered small (35 firms), this study adopted census survey in which 74% response rate was obtained. The study used primary data collected using a structured questionnaire. The gathered data was analyzed using both quantitative and qualitative techniques by application of descriptive statistics.

The study findings revealed that 31% of the organizations studied were refiners while 27% involved in processing whereas 19% of them were involved in both processing and refining activities this was due to the fact that the major raw material, that is crude palm oil is mainly imported. The study findings also established that 54% of the vegetable oil processing and refining firms in Kenya were locally owned while 31% were partly-local and partly foreign owned. In terms of years of operation, the study findings established that 62% of these firms had been existence more than 16 years and above as shown in figure 4.5. Using Likert-scale of 1 to 5 to determine the degree of influence of environmental changes on these organizations, the study results established that research

and development, E-commerce, internet and E-mail were identified to have high influence on the organization as indicated by means of 4.000, 4.1429, and 4.000 respectively as shown in table 4.2. On economic changes, the study revealed that inflation rates, exchange rates and markets trends highly influenced the organization with means of 4.2857, 4.1429, and 3.5714 respectively. Study findings also indicated that trade policies and government industrial requirements had moderately influenced these organizations as shown by means of 3.000 and 2.7143 respectively.

The findings revealed that customer service focus and intensive strategies (e.g. market penetration, product development) was very highly adopted by organization as strategic responses with means of 5.0000 and 4.5714 respectively. In addition, the organizations highly adopted the following strategic responses: restructuring as shown by a mean of 4.2857; technological innovation with a mean of 4.2857; and review of the human resource policies at a mean of 4.0000.

The study concluded that organizations adopt technological innovation; intensive strategies to keep pace with the changing environment. Further, the study concluded that organizations face many challenges including: ability to develop and maintain the cost leadership process to reduce cost without sacrificing quality; price competitiveness; and accessibility of financial resources to invest in high efficient production equipments in an effort to adapt to the strategic responses while responding to environmental changes

The study further recommends that all firm's business activities should be technologically driven in order to have a competitive edge which is seen as path to better results given the quality of processes and procedures that are enhanced by environmental force.

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ACRONYMS AND ABBREVIATIONS

FAO	Food and Agriculture Organization
HCDA	Horticultural and Crop Development Authority
KAM	Kenya Association of Manufacturers
KNBS	Kenya National Bureau of Statistics
KARI	Kenya Agricultural Research Institute
R & D	Research and Development
SWOT	Strengths, Weaknesses, Opportunities and Threats
ICT	Information and Communication Technology

CHAPTER ONE: INTRODUCTION

1.1 Background of the Study

All firms of various kinds and with different organization structures operate within an environment of the country or location where their business activities are undertaken. In its entirety, an environment contains factors that influence the function of an organization. These functions include but are not limited to production, marketing, quality management systems, and customer services orientation. Indeed, all organizations have different methods and approaches of responding to these environmental factors which can be categorized either as internal or external. The internal environment also referred to as remote environment comprises factors that the organization has control over, whereas external environments is considered to consists of those variables over which the organization has no control. Frishammar (2006) put forth that the adaptive perspective of the environment-organization relationship assumes that organizations can adapt to changes within their environment by taking and implementing decisions that can alter their strategy, structure and processes

The changing nature of the external environment in Kenya in the recent past has led to many corporate managers to strive to adjust their strategic choices to match the external characteristics so as to achieve their intended objectives. In view of these developments, it is important to acknowledge that the success or failure of an organization is perceived to be dependent on how the environment shifts and the degree of flexibility of its organizational capabilities to address such changes. Johnson and Scholes (1990) emphasize the need for organizations to critically assess the environment as it determines their success.

The vegetable oil processing and refining firms in Kenya are no exception to environmental changes as they are also affected by these dynamics. External environment dynamics can be observed to provide opportunities and threats to the organization. Utterback (1979) asserts that the organization must adapt to changes in its environment which are often beyond its control or influence, and which in turn may involve changes in products, policies, organizational structure and procedures. This is posed to require a degree of flexibility and time for effective responses and, consequently, a need to anticipate important environmental changes.

Butler, Dickie, and Naude (2010) argue that the rapid and unpredictable environmental changes and market complexities require firms to accumulate competitive advantage through a knowledge learning process so as to respond rapidly to these dynamics. According to Johnson and Scholes (1990), environment is such a dominant phenomenon that most organizations are unable to influence it; but must realign or adapt their response strategies in order to match these changes thus strategic fit. Jennings (2004) alludes that strategic fit recognizes that organizations are not independent, self-sufficient entities that exit in vacuum, but are subsets of society, reflecting the cultural norms of the communities where they operate. Therefore, because of the changing nature of the environment, firms are required to conduct an environmental scanning in order to understand the trends which can be used to forecast future changes.

1.1.1 Strategic Responses

Strategic responses to environmental changes has been widely discussed by many strategic management scholars (for example, Pearce and Robinson, 2005; Ansoff, 1998; Teece, 2007). Ansoff and McDonnell (1990) view response strategies as the activities that either total organization or its building blocks pursue in order to manage environmental dynamics. Further, they advanced that the role of strategic responses is all about setting the right climate, competence, and capacity to respond to these changes. Consequently, organizations must be willing and ready to modify their strategies in response to changing market conditions, technological advancements, fresh moves of competitors, shifting buyer needs and preferences (Thompson et al., 2007).

Strategic response is viewed by many strategy scholars as strategic fit or stretch. In search of strategic fit, organizations develop strategies by identifying opportunities in the environment by adapting resources so as to gain competitive advantage. On the other hand, strategic stretch involves the organization using its own resources to yield new opportunities. Capon (2008) suggests that for any organization to achieve strategic fit, its strategic position in the external environment must be clear in order to respond to these changes.

The strategic management model adopted by Ansoff and McDonnell (1990) divides a competitive environment into five distinctive levels of turbulence which includes: repetitive, expanding, changing, discontinuous, and unforeseen. Their strategic success theorem states that: "For optimal success of an organization, the strategic aggressiveness (both technological and marketing) and the components of capability (managers and organizational climate, competence and capacity) must match the level of environmental turbulence in which the organizations competes". Luo, Tan and O'Connor (2001) posit that the alignment between strategy and environment lies at the centre of strategic management. The empirical evidence from this study is that response strategies adopted by organizations are likely to define the relations that are exiting either to external environment, or internal capabilities.

1.1.2 Vegetable Oil Processing and Refining Firms in Kenya

Kenya's domestic production of vegetable oils is estimated at 35,000 metric tonnes which is about 15% of its annual demand. An estimated 559,000 mts is imported making vegetable oil the country's second most important item after petroleum and about 83,000mts is exported to foreign markets. The domestic utilization level is estimated at 232,278 mts (Kenya National Bureau of Statistic, 2011). The key players in the vegetable oil industry in Kenya comprise processors who extract the oil from the seeds and also produce oil cake for use in animal feeds, and refiners who convert crude vegetable oils into a form suitable for human consumption. Domestic production of oilseeds by local manufacturers in Kenya has been observed to be constrained by inadequate supply of raw materials, leading to efforts by Food and Agriculture Organization (FAO) to initiate development of raw material centers in the country, especially in the key growing areas of Western Kenya and the Lake Victoria basin. Processing companies like Bidco have also actively supported and encouraged local farming of vegetable oil crops and specifically palm oil. The processing and refining companies represent the private sector and related development partners including large-scale growers and Small-scale farmers (Export Processing Zones Authority, 2005).

According to the Kenya National Bureau of Statistic (2011), there are about 35 vegetable oil processors and refiners in Kenya currently. The larger companies include Bidco Oil Refineries, Kapa Oil Refineries, Palmac Oil Refiners, Diamond Industries, Pwani Oil Refiners and Unilever Kenya Ltd. These companies engage in production of cooking oils, fats, edible oils, copra oil and corn oil among other oil products. Some of the large vegetable oil refiners are also involved in growing of vegetable oil crops and supporting small scale farmers in better farming methods to increase the vegetable oil production in Kenya.

According to Export Processing Zone Authority (2005), these companies are also involved in marketing of the finished vegetable oil products both locally and internationally. This move has been necessitated by government's trade policy objective of pursuing an outward-oriented industrial policy in order to redirect industrial production in favour of exports. Kenya exports vegetable oil and fats products to mainly East and Horn of African countries, as well as Europe and the United States of America (Kenya National Bureau of Statistics, 2010). Finally, like other organizations, the vegetable oil processing and refining firms in Kenya are also facing the challenges brought about by the environmental changes. As such, they need to adapt response strategies so as to enable them to operate in these environments in order to gain competitive edge and maintain competitive advantage.

1.2 Research Problem

Many organizations are influenced by major changes in their environment, and thus, those events and developments external to the organizations can affect their ability to attain the strategic objective as well as strategic choice considered open to the organization. In light of environmental changes, strategic responses are perceived to be strategic management tools that top managements are likely to pursue in order to manage environmental turbulences and complexities. Notably, strategic responses main concern is the organization's ability in setting the right climate, competence, and capacity to respond to the ever uncertain and unpredictable environment. Hence, the success of an organization or firm is attributable to how its strategic aggressiveness and the components of capability will match the levels of environmental turbulence (Ansoff and McDonell, 1990). As a result, many organizations are driven to make strategic reforms in terms of organizational structure, product development, customer service orientations as well as market development. Consistent with this study, Sternad (2011) notes that one and the same environmental change can be viewed differently by different managers and therefore becomes important to take managerial perceptions and opinions of environmental events into consideration in determining how organizations will strategically respond to environmental changes.

Organization's environment is characterized by complexity and turbulence (Boyne, 2002) and organization as an open system (Burnes, 2004). The vegetable oil processing and refining firms in Kenya are no exception to the environmental changes. Thus, complexity arises from various stakeholders of the vegetable oil processing and refining firms that must be satisfied or dealt with. They include customers, suppliers, government authorities and regulators. On the other side, turbulence results from the more rapidly growing ICT sector in Kenya which has contributed heavily toward major changes in business processes. To add, agricultural-sector policy reforms have taken place in the recent past in a bid to promote exports of edible oil products to foreign markets in order to generate foreign revenue. Further, the Government of Kenya's trade policy objectives has included the move towards a more open trade regime with a mission to strengthen and increase overseas market access for Kenyan products, especially processed goods. This has also resulted into a more stiff competition being experienced amongst players in the vegetable oil industry. Due to these circumstances, firms within the vegetable oil industry ought to adopt response strategies that would align them to meet the environmental challenges and given the fact that strategic responses adopted by different organizations are likely to define the relationship to the external environment or the internal capability which finally can affect their performance.

From a number of empirical studies that have been carried out so far to determine how organizations respond to environmental changes in Kenya and even in other countries in various sectors, no much study focus has been given to this context, and also because organizations keep on changing with time and are unique in their own fields, these present findings cannot be generalized to apply to the vegetable oil processors and refiners in Kenya. For instance, Wairegi (2004) undertook a study on strategic responses to environmental change where the focus was on the insurance companies and established that these firms respond to environmental dynamics by introducing new products, new distribution channels ,and through reorganization of their organizations structures . Other extant studies carried out on responses to environmental changes by (Chepwony, 2001; Isaboke, 2001) confirmed that firms operating in oil sector pursued marketing strategy, information technology strategy, cultural changes among other strategies in ability to match their internal characteristics to the environment turbulence. Last, but not least, Wanjugua (2008) in a study of organizational responses to changing external environment by Kenya Pipeline Company established that the firm respond through use of information technology development, growth strategy (improved pipeline network) perceived to increase efficiency in product distribution and resulting into operating cost reductions. Therefore, the problem questions were: what are the strategic responses being pursued by the vegetable oil processing and refining firms? And what are the challenges in adapting to such responses?

1.3 Research Objective

The objectives of this study were:-

i. To identify the major environmental challenges influencing the operations of the vegetable oil processing and refining firms in Kenya.

ii. To establish the strategic responses adopted by vegetable oil processing and refining firms in Kenya.

iii. To determine the challenges that the vegetable oil processing and refining firms in Kenya are facing in responding to the environmental changes.

1.4 Value of the study

The findings of this study provided insight regarding how the adaptation of a particular strategic response due to changing environment could assist in the growth and development of corporate performance of the vegetable oil processing and refining firms in Kenya. This study provided important implications for the management of these organizations such that the strategic decisions-making could be based on the empirical evidences from the research results obtained.

The study would be of great value to the field of strategic management in that it contributed to the existing body of knowledge by focusing on the vegetable oil processing and refining firms in their effort to adapt to environmental turbulences using appropriate strategic responses.

To policy makers, the research findings would be helpful to the government economic advisors, policy strategists and other relevant institutions as it would serve as future reference material to be used to develop policies in the same industry, or other similar sub-sectors.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

This chapter covered discussions on the concept of strategy; environmental changes and organization adaptability; strategic responses to environmental changes as well as selected response strategies which could be employed by firms in circumstances where the environment forces tend to be dynamic and unpredictable and uncertain.

2.2 Concept of Strategy

Strategy plays a major role in the overall performance of an organization. This indicates that a strategy chosen is heavily dependent on the various contingent factors. For example an environment influences the link between strategy and performance. It is therefore necessary to define what is meant by 'Strategy'. From the view point of Thompson et al., (2007), the term strategy refers to a long-term plan of actions designed to achieve a particular goal, commonly known as objective. Strategy can also be defined as a set of decision-making rules for guidance of organizational behavior (Ansoff and McDonnell, 1990). Ohmae (1983), strategy is about competitive advantage. It enables an organization to gain as effectively as possible a sustainable edge over rivals. In this respect, management scholars such as Pearson and Robinson (2005) perceive strategy as management's large scale, future-oriented plans for interacting with the competitive environment to achieve long-term objectives of the company. In trying to understand what strategy is all about, Grant(2005) adds that strategy is the ability to identify and occupy attractive market segments and it provides management with a future oriented framework for understanding of how external forces impact on organization's performance.

Glueck and Jauch (1984) in their discussions relate strategy to company's response to the external environment having to consider the resources that company owns. Ansoff and McDonnell (1990) argue that when firms are faced with unfamiliar changes beyond their control then they are called upon to revise their strategies to match these unprecedented and uncertain environmental dynamics which have a likelihood of influencing the levels of corporate performance. Hill and Jones (2001) emphasize the need to have well formulated strategies because they enhance the ability of organizations to marshal and allocate resources on the basis of relative internal competences and limitations of expected changes in the environment and competitors' actions. Lynch (2009) argues that strategy can be developed by considering the resources of the organization in relation to its environment, with the main purpose being to add value. The added value is then distributed among the firms' stakeholders. Moreover, management scholars (Burns 2004; David, 2005) are in general agreement that strategy can either be deliberate or emergent. Deliberate strategies are often applied in large organizations that are associated with the strategic planning process: - strategy formulation, implementation, evaluation and control. These organizations are characterized by formal strategic planning, whereas small organizations tend to employ informal strategic planning process, perceived as emergent strategies.

Smith and Grimm (1987) and Haveman (1992) asserts that by adapting an organization's strategy under conditions of major environmental changes is likely to raise both its chances of survival as well as its financial performance potential, with firms responding timely to environmental change being able to outperform those with longer reaction times. Furthermore, managerial perceptions of environmental risks and opportunities, organizational capabilities and the availability of slack resources have influences on managers' decision-making, which in turn determines the range and levels of corporate responses (Banerjee, 2001) when faced with environmental changes.

Rhee and Lee (2007) note that strategy can be understood as the choice and commitment of firm in pursuit of its objectives. Strategy needs to be deliberately crafted to capture the firm's best growth opportunities especially the ones that are likely to enhance its long term competitive position and profitability (Thompson & Strickland, 1999).

According to Aosa (1998), strategy is about creating a fit between the external traits and internal conditions to solve a strategic problem. This problem develops due to the mismatch between internal characteristics of the organization and its external environment. Consequently, strategy is a tool that offers significant help for coping with turbulence confronted by organizations (Ansoff and McDonell, 1990) and strategy formulation must be based on highly aggregated, incomplete and uncertain information about classes of alternatives. Porter (1998) suggests that the essence of formulating competitive strategy is to attempt to relate a company to its environment and therefore aims to give direction and purpose, to deploy resources in the most effective manner and to co-ordinate strategic decisions made by the different management teams. According to Hax and Majluf (1996), strategy is a multidimensional concept that embraces all the critical activities of the firm and provides it with a sense of unity, a direction and purpose, as well as facilitating the necessary changes induced by its environment.

Strategy can be categorized into three levels, which include:-corporate level strategy; business level strategies; and operational level strategies. Johnson and Scholes (2002) view corporate level strategy as those strategies that are concerned with the overall purpose and scope of an organization. Robins and Coulter (2002), examine that corporate strategy equates organizational strategy and it seeks to determine what businesses a company should be in or wants to pursue. Examples are: restructuring strategy, growth strategy (e.g. mergers, strategic alliances and acquisitions). On the other hand, business level strategy is perceived as strategy concerned with how an organization is to compete in each of its businesses. Finally, operational strategy level focuses on the component parts of the organization to deliver effectively both corporate strategies and business strategies by employing resources, processes and people.

2.3 Environmental Changes and Organization Adaptability

The environmental changes that are taking place in the modern business environments of the 21st Century in Kenya have made many corporate leaders to strive to re-align their strategies to match the pace of technological advancement, changing economic, political and socio-cultural environment. As a result, most of managerial time in business firms is directed toward coping with uncertainties induced by environment dynamics. Firms need to co-evolve with their environment (Teece, 2007), which makes continuous adaptation to changes within a firm's environment a basic prerequisite for effective strategic management (Hofer and Schendel, 1978; Chakravarthy and Lorange, 1984).

According to Thompson and Strickland (1993), it is necessary for any organization to utilize environmental scanning techniques as earlier pointed out by Aguilar (1967) in order to predict such changes. The scanning process involves studying and interpreting economic, political, technological, and socio-cultural events with an aim of establishing trends which can affect the industry. To scholars and strategy experts, environmental scanning is perceived to play a vital role in the strategic management process in the sense that it enables the management to become aware of environmental dynamics that pose new opportunities and threats to the organization. Through SWOT analysis and industry analysis, organizations are able to carry out the process of environmental analysis. By analyzing their external environments, organizations are able to forecast changes that are likely to have far reaching consequences to their overall performances.

For any organization to be effective and successful, it will be important therefore for it to respond appropriately (Hofer and Schendler, 1978), to changes that are occurring within the environment in which they are operating, and this calls for the need of an organization to reconfigure its strategic response strategies to adapt to the prevailing or emerging environmental changes. Wheelen and Hunger (1990) and Greenstein (2001) note that firms will respond differently to the same environmental changes whereby they tend to use different strategies in reaction to these situations.

According to Bartol and Martin (1998), firms often respond to environmental changes through strategic responses and operational responses. The difference in these two responses is the period of implementation and the level of resources to be employed by the firm. The focus of operational responses are short term and concerned with efficiency of operations, on the other hand, strategic responses are long-term in nature and concerned with entire organization. Strategic responses involve large amounts of resources and decisions relating to them are usually made at corporate and business levels (Byars, 1991).

2.4 Strategic Responses to Environmental Changes

As the environment tends to be volatile and turbulent, organizations have to respond differently to the complexities that are arising, and as such strategic responses focuses on changes that impact on the organization's strategic behavior (Ansoff and McDonell, 1990). In view of this, the choice of the response to pursue depends on the speed at which a particular threat or opportunity develops in the environment, and further more such responses are anticipated to take many forms based on the organization's capability and the external environmental characteristics. Thus changing environment can pose constraints as well as create opportunities for organizations (Hrebiniak and Joyce, 1985). In a study of hospitals in San Francisco, Meyer (1982) established that environmental changes can have both detrimental but also positive effects on an organization, and that it is possible that these events become triggers to complete organizational revitalization. Therefore, many organizations are observed to employ some of the following strategic response approaches. These include restructuring, diversification, marketing, growth strategies, quality management systems, aggressive outsourcing, and improved information and technology as well as cultural changes.

The topology of Ansoff and McDonell (1990) has been adopted in this study for two reasons. First, the model demonstrates how organizations strategically respond to changes in their environments. The strategic model shows how organizations choose specific strategies that allow them to realize an adequate fit when facing different levels of environmental turbulence. Secondly, the framework includes organizational and strategic variables that describe the alternative ways used by various organizations in order to adapt to their environment.

To add, formulation of external flexibility is viewed to be part of strategic planning process. The other flexibility that an organization needs to have is an internal flexibility that can allow it to configure its resources and capabilities to offer rapid and efficient repositioning to new products and new markets whenever the situation calls for. This preposition is in line with government's trade policy objectives which includes strengthening and increasing foreign market access for Kenyan products, especially processed products.

Dynamic capabilities reflect the firm's ability to respond effectively, on the basis of its internal strengths/weaknesses, to external opportunities/threats. These dynamic capabilities include special company strengths to cope with the shifting character of the environment. By extension, this approach focuses on the key role of strategic management in appropriately adapting, integrating and re-configuring company strengths towards changing environments (Teece and Pisano, 1998). Grant (2005) argues that the survival and good performance of an organization will occur when it creates and maintains a match between strategy and the environment and also its capabilities with the strategy. Further, Ansoff and McDonell (1990) asserts that when a firm's environment changes to new turbulence level, the responsiveness of firm's capability to the external stimuli must also change to different level. Therefore, it will be necessary to conduct a strategic diagnosis in order to identify the changes and hence the decisions that need to be made concerning the currently existing strategies and its internal capabilities so as to give an assurance of the firm's future success.

The three generic strategies framework developed by Porter (1980) has been observed by many management scholars and strategy experts as potentially successful strategic manoeuvres that organisations could adopt in responding to environmental changes. Pearson and Robinson (1997) posit that firms are perceived to pursue more than one approach as its primary objective. And have extended their arguments by stating that long-term strategy ought to be based on how a firm intends to compete in the market. These strategies include:-cost leadership, differentiation, and focus strategy.

Organization can decide pursue cost leadership strategy with intent of becoming the lowest cost-producer in its industry whereby its main focus is efficiencies in production, marketing, and other areas of operations. The internal cost control systems are stringently observed to ensure cost-cutting measures are in place but at the same time no-frills occur, the product or service being sold must be perceived as comparable in quality to that offered by rivals or at least be acceptable to buyers. According to Porter (1980) a firm can achieve cost leadership in an industry through adoption of appropriate functional policies and at the same time can resort to aggressive construction of efficient scale facilities. In pursuit of differentiation strategy, Porter (1980) asserts that for a firm to achieve product uniqueness it must be involved in high levels of technological innovations and hence the organization must have to be more creative in its products developments which must also factor in any changes in the environment.

Also firms will pursue focus strategy with an aim of having cost advantage (cost focus) or a differentiation advantage (differentiation focus) in a narrow market segment (Robbins and Coulter, 2002). According to Porter (1980), firms have to focus on a particular buyer group, segmentation of the product line or geographical market. By focusing into a particular market, firms need to reduce their operations and target specific markets so as to develop a competitive edge over its competitors.

2.5 Factors Influencing Organizational Response

Organization's behaviour as well as its strategic orientation is influenced by a host of external factors in the environment. According to Pearson and Robinson (2005), these external factors can be visible and felt in the organisation's remote, industry and operating environments. The implication is that organization can only survive if they remain relevant to the environmental changes.

2.5.1 Remote Environment

The remote external environment of an organization comprises of a number of factors such as technological, economic, socio-cultural, ecological, and political-legal forces that heavily influence the strategic decisions and performance of any organisation (Pearce, Robinson, and Mital, 2010). Further, argue that changes in the environment bring about new opportunities, threats as well as constraints to the organization.

2.5.1.1 Technological Factors

The modern business environment dictates that all firm's business activities should be technologically driven in order to have a competitive edge in the industry. Technological development to an organization is seen as path to better results given the quality of processes and procedures that are enhanced by this environmental force. As appreciated by scholars (e.g. Porter, 1985; Koontz & Weihrich, 2001), technological change is one of those forces that do have a great influence on the organizations performance. Technological change being a dominant driver of competition is likely to erode the competitive advantage of one firm over the other in the same industry. Additionally, technological innovation can change the nature of opportunities and threats by altering the product lifecycles, increasing speed of distribution as well as the demand of such product in the market.

2.5.1.2 Economic Factors

Pearce et al., (2010) argue that the economic forces have an influence on the firm's operations, and hence each firm must consider economic trends in the segment that is likely to affect its industry. Organisations will respond to changes in interest rates, inflation rates, monetary policies, consumption levels, as well as integration of regional markets. Therefore, strategic responses that organizations have to pursue need to factor in the changes in economic forces.

2.5.1.3 Political Factors

To formulate strategy, top management must consider the direction and stability of the political forces. This is to the fact that political forces are perceived to define the legal and regulatory frameworks within which organizations must operate (Pearce et. al., 2010). Some of the political forces that organizations react to when the environment changes include: taxation policies, trade policies, and government industrial requirements.

2.5.1.4 Socio-cultural Factors

Socio-cultural factors comprise of the beliefs, values, attitudes, opinions, and lifestyles of persons in the firm's external environment. Socio-cultural forces are dynamic, with constant change resulting from the efforts of individuals to satisfy their desires and needs by controlling and adapting to environmental factors.

2.5.1.5 Ecological Factors

Changes in the environmental policies can positively or negatively impact on a firm's strategies. As a result, managers are required by government authorities or public in general to incorporate ecological concerns into their decisions making. Some of these strategic decisions could involve reformulation of products, modification of processes, redesigning production equipments, and or recycling by-products to meet environmental regulations requirements (Pearce et al., 2010).

2.5.2 Industry Environment

All firm's operate in an environment that is composed of three sets of players, namely: - customers, suppliers, and competitors. Grant (2005) strongly asserts that all kinds of organisations must understand their customers, suppliers, and competition in an industry or sector so to create value. Porter's five forces of competition framework perceive the profitability of an industry to be influenced by five sources of competitive pressures. These five forces include: threat of new entrants, bargaining power of suppliers, bargaining power of buyers, rivalry among existing firms, and threat of substitutes (Pearce et. al., 2010).

2.5.3 Operating Environment

One factor that influences organization response is the operating environment. It is observed by a wide range of strategic management scholars as competitive situation which affect an organisation's success to acquire needed resources or in profitably marketing its goods and services. Pearce et al., (2010) note that the most important factors are the firm's competitive position, composition of its customers, its reputation among suppliers and creditors, and its ability to attract competent human resources force.

CHAPTER THREE: RESEARCH METHODOLGY

3.1 Introduction

The purpose of this chapter provided an insight on the research design adopted, the target population studied, data collection methods employed, and last but not least the data analysis method used when organizing and analyzing the data for interpretation in chapter four.

3.2 Research design

This study adopted cross-sectional survey design. Similar studies had employed this study design such as Cueille (2006) in the study of strategic responses to high-turbulent environment of French Public Hospitals and Koskey (2008) in a study of clearing and forwarding firms in Kenya. Cross-sectional survey provided quick, inexpensive, efficient, and accurate means of assessing information about the population (Zikmund, 2003). Further, this type of design offered an accurate profile of persons, events, or situations (Robson, 2002). It allowed one to collect quantitative data which can aid in the analysis using descriptive and inferential statistics (Saunders et al, 2007).

3.3 Target Population

The target population of the study covered all vegetable oil processing and refining firms in Kenya. According to the KAM (2011) directory and the KNBS (2011) economic survey, there were about 35 firms that were currently dealing in the processing and refining of vegetable oils. The composition of these firms included processors, refiners, and millers as classified by Export Processing Zones Authority (2005). Since the population was considered small (35 firms), this study adopted census survey.

3.4 Data Collection Method

In this study, primary data collection was conducted by the use of structured and closed-ended questionnaires. These questionnaires were self-administered to chief executive officers of the vegetable oil processing and refining firms in Kenya by away of face-to-face interview and with the assistance of two research assistants. The structure of the questionnaire was in four parts. First section covered the general information of the firms under study. Second section had questions concerning the environmental changes and the opinions of respondents on the extent to which they had influenced their strategic decisions. Third section looked at the strategic responses strategies being pursued by the vegetable oil processing and refining firms in responding to the environment dynamics. Fourth section focused on the challenges facing the adaptability of the identified strategic responses being pursued by the vegetable oil processing and refining firms in Kenya.

3.5 Data Analysis

The gathered data was analyzed using both quantitative and qualitative techniques by application of descriptive statistics. Tables, graphs, charts, proportions, means and percentages were used to present data after checking their completeness and validity. Frequency tables were used for arraying data collected to facilitate computation of percentages using Excel Package in order to address the objective of the study. To assist in analyzing the data, factor analysis was used as it enabled the researcher to sort out and analyze the major strategic responses as well as main environmental changes in the study.

CHAPTER FOUR: DATA ANALYSIS, RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter presented analysis and findings of the study as set out in the research methodology. The results were presented on strategic responses to environmental changes by vegetable oil processing and refining firms in Kenya. The data was gathered exclusively from questionnaire as the research instrument which was designed in line with the objectives of the study.

4.1.1 Response Rate

The study targeted a sample of 35 firms out of which 26 filled in and returned the questionnaire giving a response rate of 74% and non response rate of 26%. This impressive response rate was made a reality after the researcher made personal visits to remind the respondent to fill-in and return the questionnaires. This response rate was considered to be representative and conforms to Mugenda and Mugenda (1999) findings that a response rate of 50% is adequate for analysis and reporting; a rate of 60% is good and a response rate of 70% and over is excellent.

Table 4.1: Response Rate

Response	Frequency	Percent
Responses	26	74
Non-responses	9	26
Total	**35**	**100**

Source: Research Data, 2012

4.2 Demographic Information

The study sought to establish the activities that the vegetable oil processing and refining firms were involved in. From the findings, 31% of the firms were involved in refining followed by 27% who were involved in processing, 23% were involved in milling while 19% were engaged in processing and refining as illustrated in figure 4.1 below.

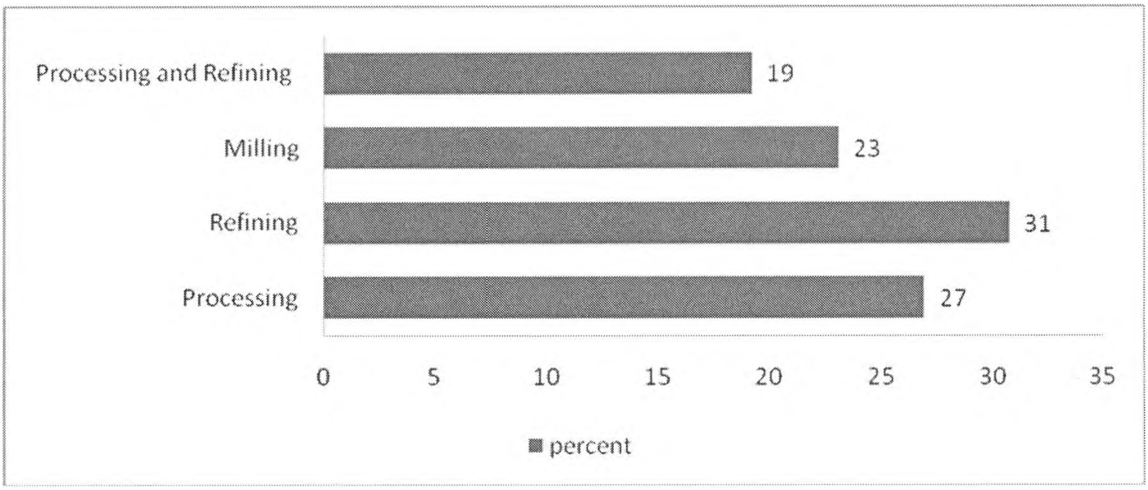

Figure 4.1: Activities the Organization is involved in

On the ownership composition of the company, the study established that most of the firms were locally owned at 54%, 31% were owned partly local and partly foreign while 14% foreign owned as shown in figure 4.2 below.

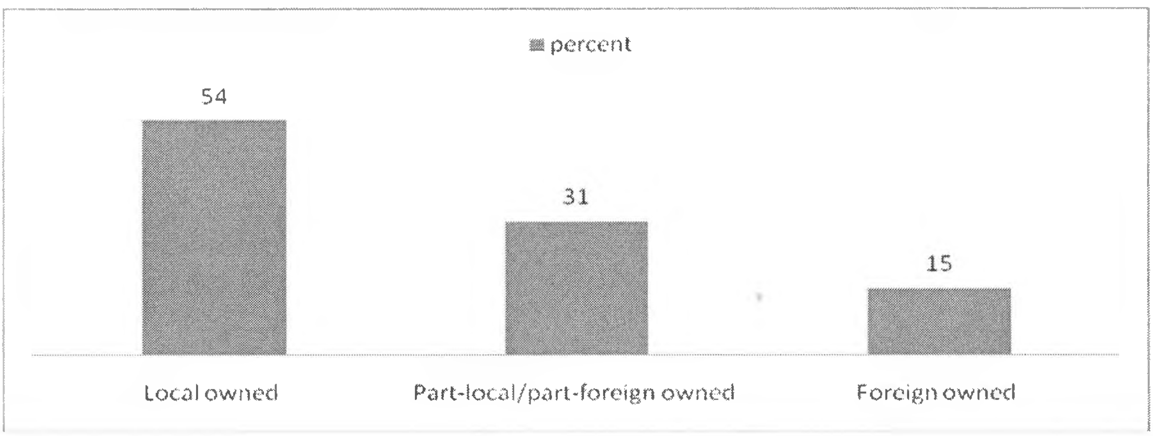

Figure 4.2: Ownership Composition

The respondents were also required to indicate in which category the company belonged to. According to the findings, majority (62%) of the firms were privately owned, 19% were private-public owned, 12% were fully public owned whereas 8% were parastatal as indicated in figure 4.3 below.

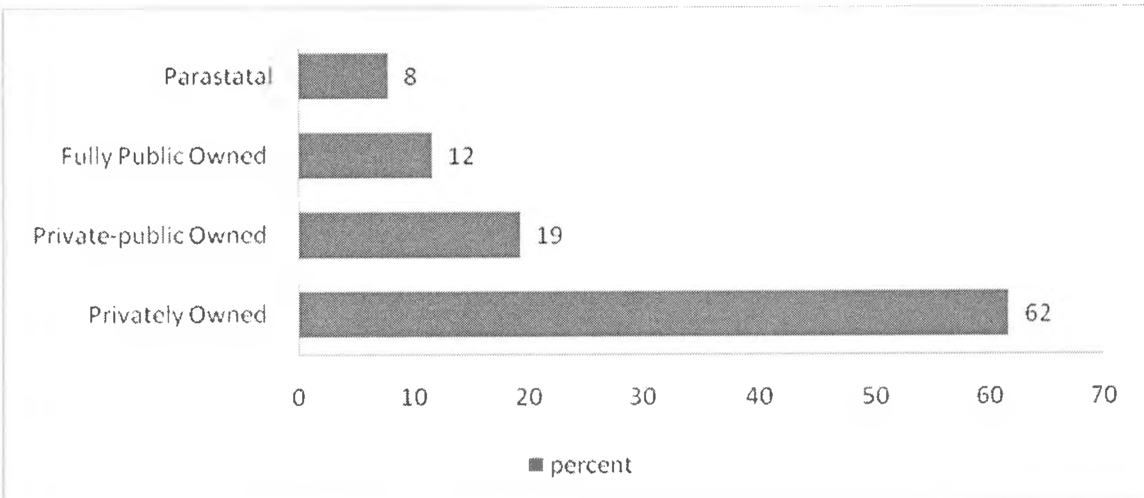

Figure 4.3: Category of the Company

In addition, the study required the respondents to indicate the size of the organization in terms of staff composition and branch network it had operated. The findings in figure 4.4 below revealed that 65% of the firms had 100 and above employees and networks it operated, 27% had 50-100 employees and networks while 8% had less than 50 employees and networks it operated.

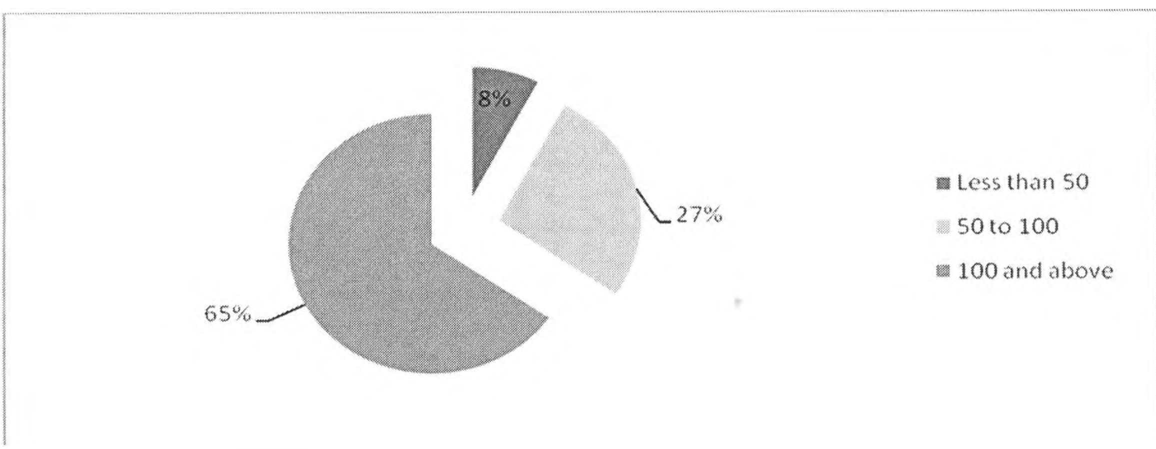

Figure 4.4: Size of the Organization

The study sought to determine the number of years the organization had been in operation. The study found that 62% of the firms had operated for a period of 16 years and above followed by those who had been in operations for between 11-15 years at 23%. In the third position was those firm that had been in operations for between 6-10 years at 12% and finally those below 5 years at 4%, as illustrated in figure 4.5 below.

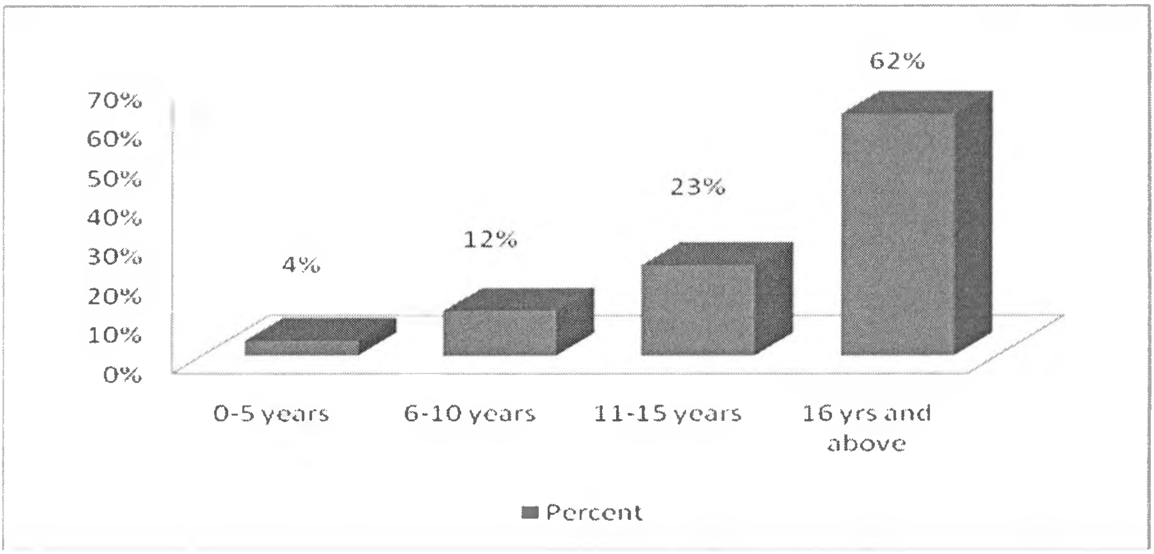

Figure 4.5: Period Organization Had Been In Operation

4.3 Influence of Environment Changes on the Organization Adaptability

4.3.1 Technological Changes

The study required the respondents to indicate the degree of influence of technological changes on the organization in the last five years. The respondents indicated that R&D was a high influence on the organization with a mean of 4.0000; E-commerce had influenced organization highly with a mean of mean of 4.1429; internet and E-mail was also a high influence on the organization as indicated by a mean of 4.0000 (see table 4.2 below).

Table 4.2: Technological Changes

	Mean	Std. Deviation
R&D	4.0000	1.00000
E-commerce	4.1429	0.69007
Internet and E-mail	4.0000	0.57735

Source: Research Data, 2012

4.3.2 Economic Changes

On economical changes, the study established that inflation rates, exchange rates and market trends influenced the organization highly with means of 4.2857, 4.1429, and 3.5714 respectively. In addition, the organization was moderately influence with following aspects of economic changes: Financial/monetary policies at a mean of 2.7143; Consumption levels with a mean of 2.8571; Integration of regional markets as shown by a mean of 3.2857; and Accessibility of investment capital with a mean of 3.2857. The findings are summarized in table 4.3 below.

Table 4.3: Economical Changes

	Mean	Std. Deviation
Inflation rates	4.2857	0.95119
Exchange Rates	4.1429	0.69007
Market trends	3.5714	1.13389
Integration of regional markets	3.2857	1.38013
Accessibility of investment capital	3.2857	1.1127
Consumption levels	2.8571	1.77281
Financial/monetary policies	2.7143	1.1127

Source: Research Data, 2012

4.3.3 Political-Legal Factors

The study also sought to establish how political-legal factors had influenced the organization. From the findings in table 4.4 below, the respondents indicated that tax regulations influenced the organization highly as shown by a mean of 3.8571. The respondents also cited that trade policies and government industrial requirements influenced the organization moderately as shown by means of 3.0000, 2.7143 respectively. Constitutional Reforms had less influence on the organization with a mean of 2.2857.

Table 4.4: Political-Legal Factors

	Mean	Std. Deviation
Tax Regulations	3.8571	1.06904
Trade Policies	3.0000	1.1547
Government industrial requirements	2.7143	1.1127
Constitutional Reforms	2.2857	1.1127

Source: Research Data, 2012

4.3.4 Socio-Cultural Changes

On Socio-Cultural changes, Lifestyle of consumers had a moderate influence on the organization as shown by a mean of 3.4286. Level of education, social responsibility, religion and demographics had less influence on the organization with means of 2.4286, 2.2857, 1.8571, and 1.7143 respectively. This information is summarized in table 4.5 below.

Table 4.5: Socio-Cultural Changes

	Mean	Std. Deviation
Lifestyle of consumers	3.4286	1.39728
Level of education	2.4286	1.51186
Social Responsibility	2.2857	1.1127
Religion	1.8571	1.06904
Demographics	1.7143	0.75593

Source: Research Data, 2012

4.4 Strategic Responses Adopted by Organization in the Changing Environment

The respondents were required to indicate the extent to which organization had adopted strategic responses in respect to the changing business environment in Kenya. In table 4.6 below, the findings revealed that customer service focus and intensive strategies (e.g. market penetration, product development) was very highly adopted by organization as strategic responses with means of 5.0000 and 4.5714 respectively. In addition, the organizations highly adopted the following strategic responses: Restructuring as shown by a mean of 4.2857; Technological innovation with a mean of 4.2857; Review of the human resource policies at a mean of 4.0000; Focus Strategy as shown by a mean of 3.8571; Differentiation at a mean of 3.7143; cost leadership with a mean of 3.5714. The organization fairly adopted right-sized some of your activities at a mean of 3.2857; cultural changes as shown by a mean of 3.1429; strategic alliances and collaborations as indicated by a mean of 2.8571; and outsourced some of the services at a mean of 2.7143. Downsized some of your operations, diversifying into new businesses and Mergers and acquisitions was less adopted by the organization with means of 2.2857, 2.0000 and1.8571 respectively.

Table 4.6: Strategic Responses Adopted by Organization in the Changing Environment

Scale	Mean	Std. Deviation
Customer service focus	5.0000	0
Intensive strategies (e.g. market penetration, product development).	4.5714	0.7868
Restructuring	4.2857	0.95119
Technological innovation	4.2857	1.49603
Review of the human resource policies	4.0000	1.52753
Focus Strategy	3.8571	1.06904
Differentiation	3.7143	0.95119
Cost Leadership	3.5714	0.53452
Right-sized some of your activities	3.2857	1.25357
Cultural changes	3.1429	1.57359
Strategic alliances and collaborations	2.8571	1.46385
Outsourced some of the services	2.7143	2.13809
Downsized some of your operations	2.2857	1.25357
Diversifying into new businesses	2.0000	1.41421
Mergers and acquisitions	1.8571	1.46385

Source: Research Data, 2012

4.5 Challenges Facing Organization in Responding To Environmental Changes

The respondents were to rate the degree to which the following challenges had influenced organization's ability to adapt to strategic responses in responding to environmental changes in the last five years. According to the findings, the respondents agreed that the organization was faced with the following challenges: Ability to meet internal cost control systems with a mean of 4.4286; Price competitiveness as shown by a mean of 4.2857; Accessibility of financial resources to invest in high efficient production equipments at a mean of 4.2857; Technological innovations as shown by a mean of 4.2857; Staff re-training and development at a mean of 4.2857; Effectiveness of sales distribution with a mean of 4.2857; Advertising and promotion effectiveness as shown by a mean of 4.1429; Effectiveness of organizational learning processes at a mean of 4.1429; Changes in business process re-engineering with a mean of 4.0000; Market segmentation at a mean of 3.8571; Degree of flexibility and time for effective responses as indicated by a mean of 3.8571; Ability to develop and maintain the cost leadership process to reduce cost without sacrificing quality with a mean of 3.7143; Acceptance of change of cultural norms of the organization as shown by a mean of 3.7143; and Low management commitment to changes with a mean of 3.5714. The information is summarized in table 4.7 below.

Table 4.7: Challenges Facing Organization in Responding To Environmental Changes

	Mean	Std. Deviation
Ability to meet internal cost control systems	4.4286	0.53452
Price competitiveness	4.2857	0.75593
Accessibility of financial resources to invest in high efficient production equipments.	4.2857	0.95119
Technological innovations	4.2857	0.48795
Staff re-training and development	4.2857	0.48795
Effectiveness of sales distribution	4.2857	0.75593
Advertising and promotion effectiveness	4.1429	0.69007
Effectiveness of organizational learning processes.	4.1429	1.06904
Changes in business process re-engineering	4.0000	1.1547
Market segmentation	3.8571	1.06904
Degree of flexibility and time for effective responses.	3.8571	0.37796
Ability to develop and maintain the cost leadership process to reduce cost without sacrificing quality.	3.7143	1.25357
Acceptance of change of cultural norms of the organization.	3.7143	1.1127
Low management commitment to changes	3.5714	1.61835

Source: Research Data, 2012

CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presented the summary of key data findings, conclusion drawn from the findings highlighted and recommendation made thereof. The conclusions and recommendations drawn were in quest of addressing research objective on strategic responses to environmental changes by vegetable oil processing and refining firms in Kenya.

5.2 Summary of the Findings

The study found that aspects of technological changes which included R& D, E-commerce, internet and E-mail highly influenced the organization. The study established that inflation rates, exchange rates and market trends influenced the organization highly. The organization was also moderately influence by financial/monetary policies, consumption levels, integration of regional markets and accessibility of investment capital. On political-legal factors, tax regulations influenced the organization highly while trade policies and government industrial requirements influenced the organization moderately but Constitutional Reforms had less influence on the organization. On Socio-cultural changes, lifestyle of consumers had a moderate influence on the organization whereas level of education, social responsibility, religion and demographics had less influence on the organization. This study finding have supported the preposition made by Porter (1985) that technological change is one of those forces that do have a great influence on the organizations performance. And given that it is dominant driver of competition is likely to erode the competitive advantage of one firm over the other in the *same industry.* Additionally, technological innovation can change the nature of opportunities and threats by altering the product lifecycles, increasing speed of distribution as well as the demand of such product in the market. Pearce et al., (2010) argue that the economic forces have an influence on the firm's operations, and hence each firm must consider economic trends in the segment that is likely to affect its industry. Organisations will respond to changes in interest rates, inflation rates, monetary policies, consumption levels, as well as integration of regional markets. Pearce et al., (2010) also asserts that political forces are perceived to define the legal and regulatory frameworks within which organizations must operate. Some of the political forces that organizations react to when the environment changes include: taxation policies, trade policies, and government industrial requirements.

On strategic responses adopted by organization in the changing environment, the findings revealed that customer service focus and intensive strategies (e.g. market penetration, product development) was very highly adopted by organization as strategic responses. In addition, the organizations highly adopted the following strategic responses: restructuring; technological innovation; review of the human resource policies; focus strategy; differentiation; and cost leadership. The organization also fairly adopted right-sized some of your activities; cultural changes; strategic alliances and collaborations; and outsourced some of the services. Downsizing some of the operations, diversifying into new businesses and Mergers and acquisitions was less adopted by the organization. Porter (1980) observed successful strategic manoeuvres that organisations could adopt in responding to environmental changes. Pearson and Robinson (1997) posit that firms are perceived to pursue more than one approach as its primary objective. And have extended their arguments by stating that long-term strategy ought to be based on how a firm intends to compete in the market. These strategies include: cost leadership, differentiation, and focus strategy. Hrebiniak and Joyce (1985) also states that changing environment can pose constraints as well as create opportunities for organizations. Therefore, many organizations are observed to employ some of the following strategic response approaches. These include restructuring, diversification, marketing, growth strategies, quality management systems, aggressive outsourcing, and improved information and technology as well as cultural changes.

On challenges facing organization in responding to environmental changes, the respondents agreed that the organization was faced with the following challenges: Ability to meet internal cost control systems; price competitiveness; accessibility of financial resources to invest in high efficient production equipments; technological innovations; staff re-training and development; effectiveness of sales distribution; advertising and promotion effectiveness; effectiveness of organizational learning processes; changes in business process re-engineering; market segmentation; degree of flexibility and time for effective responses; ability to develop and maintain the cost leadership process to reduce cost without sacrificing quality; acceptance of change of cultural norms of the organization; and low management commitment to changes.

5.3 Conclusions

From the findings, the study concludes aspects of technological changes which include R& D, E-commerce, internet and E-mail have major influence on the organization. Aspects of economic changes such as inflation rates; financial/monetary policies; exchange rates; consumption levels; market trends; integration of regional markets; and accessibility of investment capital have major influence on the organization. Political-legal factors like tax regulations; trade policies; constitutional reforms; and government industrial requirements also influence the organization very highly. Socio-Cultural changes including level of education; demographics; religion; social Responsibility; and Lifestyle of consumers have major influence on the organization.

On strategic responses adopted by organization in the changing environment, the study concludes that organizations adopt technological innovation; intensive strategies (e.g. market penetration, product development); customer service focus; cost leadership; differentiation; focus strategy; restructuring; diversifying into new businesses; downsize some of their operations; right-size some of their activities; outsource some of the services; review the human resource policies; cultural changes; mergers and acquisitions and strategic alliances and collaborations in respect to the changing business environment in Kenya.

On challenges facing organization in responding to environmental changes, the study concludes that organizations face the following challenges: ability to develop and maintain the cost leadership process to reduce cost without sacrificing quality; price competitiveness; accessibility of financial resources to invest in high efficient production equipments; ability to meet internal cost control systems; market segmentation; technological innovations; degree of flexibility and time for effective responses; changes in business process re-engineering; effectiveness of sales distribution; advertising and promotion effectiveness; and acceptance of change of cultural norms of the organization; low management commitment to changes; staff re-training and development; and effectiveness of organizational learning processes in an effort to adapt to the strategic responses while responding to environmental changes.

5.4 Recommendations

From the findings and conclusions, the study recommends that all firm's business activities should be technologically driven in order to have a competitive edge in the industry which is seen as path to better results given the quality of processes and procedures that are enhanced by environmental force. To formulate strategy, top management in the organization must consider the direction and stability of the political forces, economic trends and socio-cultural factors in the segment that is likely to affect the performance of the organization.

Organizations should be willing and ready to modify their strategies in response to changing market conditions, technological advancements, fresh moves of competitors, shifting buyer needs and preferences in order to remain relevant and competitive. Organizations should employ strategic response approaches such as restructuring, diversification, marketing, growth strategies, quality management systems, aggressive outsourcing, and improved information and technology as well as cultural changes. Organizations long-term strategies ought to be based on how a firm intends to compete in the market such as cost leadership, differentiation, and focus strategy. It's also necessary for organization to conduct a strategic diagnosis in order to identify the changes and hence the decisions that need to be made concerning the currently existing strategies and its internal capabilities so as to give an assurance of the firm's future success.

5.5 Limitations of the Study

The respondents were reluctant in giving information fearing that the information asked would be used to intimidate them or paint a negative image about them or the company. The researcher handled this problem by carrying an introduction letter from the University and assured the respondents that the information they gave would be treated with confidentiality and was used purely for academic purposes.

The study faced both time and financial limitations. The duration that the study was to be conducted was limited hence exhaustive and extremely comprehensive research could not be carried on strategic responses to environmental changes by vegetable oil processing and refining firms in Kenya. The researcher, however, minimized these by conducting the survey at the Institution's headquarter since it was where strategies are made and rolled out to other office that operate on the blue print.

5.6 Area for Further Research

The study recommends that a similar study to be done on all processing and refining firms in Kenya for the purposes of benchmarking since the business environment has become very volatile thus organizations are forced to strategize ways of dealing with their current problems in order to survive the high competition.

5.7 Implications on Policy, Theory and Practice

The findings should provide insight regarding how the adaptation of a particular strategic response due to changing environment should assist in the growth and development of corporate performance of the vegetable oil processing and refining firms in Kenya. This study should provide important implications for the management of these organizations such that the strategic decisions-making should be based on the empirical evidences from the research results obtained.

The study should be of great value to the field of strategic management in that it should contribute to the existing body of knowledge by focusing on the vegetable oil processing and refining firms in their effort to adapt to environmental turbulences using appropriate strategic responses.

To policy makers, the research findings should be helpful to the government economic advisors, policy strategists and other relevant institutions as it should serve as future reference material to be used to develop policies in the same industry, or other similar sub-sectors.

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APPENDICES

Appendix 1: Introduction Letter

UNIVERSITY OF NAIROBI

MOMBASA CAMPUS

Telephone: 020-2059164
Telegrams: Varsity Nairobi
Telex: 22095 Varsity

P.O. Box 99560 80107
Mombasa Kenya

DATE: 05TH JULY, 2012

TO WHOM IT MAY CONCERN

The bearer of this letter, **Benedict Otieno Omondi** of Registration number **D61/71050/2009** is a Master of Business Administration (MBA) student of the University of Nairobi, Mombasa Campus.

He is required to submit as part of his coursework assessment a research project report. We would like the student to do his project on **Strategic responses to environmental changes by Vegetable oil processing and refining firms in Kenya.** We would, therefore, appreciate if you assist him by allowing him to collect data within your organization for the research.

The results of the report will be used solely for academic purposes and a copy of the same will be availed to the interviewed organization on request.

Thank you.

UNIVERSITY OF NAIROBI
ASSISTANT CO-ORDINATOR
05 JUL 2012
SCHOOL OF BUSINESS
MOMBASA CAMPUS

Mr. JOB MWANYOTA
ASSIST. CO-ORDINATOR, SOB, MOMBASA CAMPUS

Appendix II: Questionnaire

Kindly answer the questionnaire below by ticking in the appropriate box

Section 1: General Information of the firm

1. Please indicate the name of your organization **(optional)** ....

2. What activity (ies) are you involved in? Please tick where appropriate.

    i. Processing ( ) ii. Refining ( ) iii. Milling ( ) iv. Processing and Refining ( )

3. Ownership composition of your company. Please select the appropriate option.

    i. Local owned ( ); ii. Part-local/part-foreign owned ( ); iii. Foreign owned ( )

4. Kindly indicate in which category your company is:

    i. Privately Owned ( ); ii. Private-public Owned ( ); ii. Fully Public Owned ( );

    iv. Parastatal ( )

5. What is the size of your organization in terms of staff composition and branch network operated? Please select where applicable.

    i. Less than 50 ( ); ii. 50 to 100 ( ); iii. 100 and above ( )

6. How many years has your organization been in operation? Please select the most appropriate response from the listed category.

    i. 0- 5 years ( ); ii. 6-10 years ( ); iii. 11-15 years ( ); iv. 16yrs and above ( )

Section 2: The influence of environment changes on the organization adaptability

7. Please indicate on a scale of **1** (no influence) to **5** (Very high influence) the degree of influence of environmental changes on your organization in the last five years. Please choose the most appropriate influence from the ones indicated below.

Scale: 1= No influence; 2= Less influence; 3 = Moderate influence; 4 = High influence; 5 = Major influence

A) Technological Changes					
i. R&D	1	2	3	4	5
ii. E-commerce	1	2	3	4	5
iii. Internet and E-mail	1	2	3	4	5
B) Economic Changes					
i. Inflation rates	1	2	3	4	5
ii. Financial/monetary policies	1	2	3	4	5
iii. Exchange Rates	1	2	3	4	5
iv. Consumption levels	1	2	3	4	5
iv. Market trends	1	2	3	4	5
v. Integration of regional markets	1	2	3	4	5
vi. Accessibility of investment capital	1	2	3	4	5
C). Political-Legal Factors					
i. Tax Regulations	1	2	3	4	5
ii. Trade Policies	1	2	3	4	5
iii. Constitutional Reforms	1	2	3	4	5
iv. Government industrial requirements	1	2	3	4	5
D) Socio-cultural Changes					
i. Level of education	1	2	3	4	5
ii. Demographics	1	2	3	4	5
iii. Religion	1	2	3	4	5
iv. Social Responsibility	1	2	3	4	5
v. Lifestyle of consumers	1	2	3	4	5

Section 3: Strategic Responses Adopted by your organization in response to the changing environment as earlier highlighted in section two above

8. Using a Likert-Type scale of **1** to **5** where,

1=not adopted at all; 2= Less adopted; 3= fairly adopted; 4= high adopted;

5= very highly adopted

Please choose the extent to which your organization has adopted the listed strategic responses below in respect to the changing business environment in Kenya.

Scale	1	2	3	4	5
Cost Leadership					
Differentiation					
Focus Strategy					
Restructuring					
Technological innovation					
Mergers and acquisitions					
Strategic alliances and collaborations					
Diversifying into new businesses					
Downsized some of your operations					
Right-sized some of your activities					
Outsourced some of the services					
Review of the human resource policies					
Intensive strategies (e.g. market penetration, product development).					
Customer service focus					
Cultural changes					

Section 4: Challenges that your organization has encountered in an effort to adapt to the above strategic responses while responding to environmental changes.

9. Using a scale of **1**(strongly agree) to **5** (strongly disagree) where;

1 = **Strongly Agree**; 2 = **Agree**; 3 = **Fairly Agree**; 4 = **Disagree**; 5 = **Strongly Disagree**

Please select the degree to which the following challenges have influenced your organization's ability to adapt to strategic responses in responding to environmental changes in the last five years.

Scale	1	2	3	4	5
Ability to develop and maintain the cost leadership process to reduce cost without sacrificing quality.					
Price competitiveness					
Accessibility of financial resources to invest in high efficient production equipments.					
Ability to meet internal cost control systems					
Market segmentation					
Technological innovations					
Low management commitment to changes					
Staff re-training and development					
Degree of flexibility and time for effective responses.					
Changes in business process re-engineering					
Effectiveness of sales distribution					
Advertising and promotion effectiveness					
Effectiveness of organizational learning processes.					
Acceptance of change of cultural norms of the organization.					

Thank you for your participation!!

Appendix III: List of the Vegetable Oil Processing and Refining Firms in Kenya

No.	Name of Company
1.	ARKAY INDUSTRIES
2.	VOI INDUSTRIES
3.	BIDCO OIL REFINERIES
4.	DARFORDS ENTERPRISES LTD
5.	DIAMOND INDUSTRIES
6	EARTHOIL KENYA
7.	EASTERN INDUSTRIAL LTD
8.	KAPA OIL REFINERIES LTD
9.	MALINDI INDUSTRIES
10.	PREMIER OIL MILLS
11.	TINGA TINGA LIFESTYLE
12.	TOWRIT OIL LTD
13.	UMOJA MAINTENANCE CENTRE
14.	EDIBLE OIL PRODUCTS
15.	UNILEVER (K) LTD
16.	KISUMU WALLA OIL INDUSTRIES
17	RIFT VALLEY PRODUCTS
18	MENEGAI OIL REFINERIES LTD
19	GILOIL COMPANY LTD
20	PWANI OIL PRODUCTS
21	CORN PRODUCTS KENYA LTD
22	KENYA NUT COMPANY
23	PREMIER FOOD INDUSTRIES LTD
24	ABERDARE OIL MILLERS
25	AFYA COOKING OIL MANUFACTURERS
26	NAKURU MILLS
27	OIL CROP DEVELOPMENT LTD
28	PALMAC OIL REFINERS
29	OIL EXTRACTION LIMITED
30	SANSORA OIL MILLS
31	WESTERN SEED AND GRAIN COMPANY

Source: KAM (2011) Directory: Kenya National Bureau of Statistics (2011)